

To

**The Divisional Forest Officer
Keonjhar Division**

Sub: Proposal for seeking prior approval of the Central Government under Section 2 (1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 in favour of M/s Odisha Mining Corporation Limited for non-forestry use of 22.697 ha of forest land of Jilling-Langalota Iron Ore Block within total Mining Lease area of 456.100 ha in Keonjhar District, Odisha.

Ref: (i) F.No.8-49/1998-FC (PT 1) dtd. 09.02.2024 by MoEF & CC, Govt. of India.
(ii) No. 2978/FE&CC dt 23.02.2024 by the OSD-cum-Spl. Secy. to Govt., Dept. of FE & CC.
(iii) Memo No.4791/9F (MG)-70/2021 dt 27.02.2024 by DCF (Nodal), Bhubaneswar.

Sir,

The point wise compliance to the conditions stipulated in the grant order of Stage-I forest clearance accorded by MoEF & CC, Govt. of India under Section 2 of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 vide letter under reference (i), subsequent instruction by the OSD-cum-Special Secretary to Govt., Dept. of FE & CC and DCF (Nodal) vide letter under reference (iii) and (iv) respectively for non-forestry use of 22.697 ha of forest land within the mining lease area of 456.100 ha of Jilling-Longalota Iron Ore Block of M/s Odisha Mining Corporation Limited located in Keonjhar district of Odisha is given as under for kind scrutiny:

1. Legal status of the diverted forest land shall remain unchanged;

In compliance, OMC has given an undertaking at **Sl.No.1 of Annexure-I** to pursue the State Government to keep the legal status of forest land unchanged.

2. Compensatory Afforestation:

i. The compensatory afforestation over non-forest land, equal in extent to the forest land being diverted i.e. 22.697 ha, shall be raised by the State Forest Department at the project cost within two years from the date of issue of diversion order of the forest land. At least 1000 plants per hectare shall be planted over identified non-forest land and if it is not possible to plant so many saplings in the area identified for CA, the balance saplings will be planted in any other forests as per prescriptions of approved working plan with provision for ten years on subsequent maintenance;

In compliance, it is submitted that the State Forest Department shall raise plantation over 22.697 ha, allotted by the Collector, Koraput in village Sorada under Pottangi Tahasil of Koraput district as per the CA scheme technically approved by PCCF (FD & NO, FC Act) vide Memo No. 4791/ 9F(MG)-70.2021 dt 27.02.2024 @1000 plants/ha on one time cost norm basis with a provision for ten years on subsequent maintenance to be completed within a period of two years from the date of issue of final approval order by MoEF & CC, Govt. of India. Since, 1000 plants/ha has been certified by the joint verification team to be accommodated in the allotted area, planting of balance saplings in any other forest may not be required.

ii. The User Agency shall transfer the cost of raising and maintaining the compensatory afforestation as per the approved CA Scheme at the current wage rate in consultation with State Forest Department in the account of CAMPA of the concerned State through online portal;

In compliance, it is submitted that basing on the demand raised by DFO, Keonjhar vide letter No. 2690/Mining- dt 28.03.2024 for Rs 1, 40, 48,800/- towards payment of CA Scheme over 22.697 ha in village Sorada under Pottangi Tahasil of Koraput district and subsequent demand raised vide letter No. 3598/6F-Mining-19/2024 dt 03.05.2024 for Rs 46,81,200/- towards Gap Planting and Soil and Moisture Conservation measures to restock and rejuvenate the degraded open forest located within 100mtr from outer perimeter of Jilling-Longalotta mines, OMC requested PCCF (FD & NO, FC Act) for adjustment of the total amount of Rs 1, 87, 30,000/- (Rs 1, 40, 48,800/-+ Rs 46,81,200/-) from the amount already paid earlier. In reply, PCCF (FD & NO, FC Act) vide Memo No.22874 dt 14.11.2024 permitted DFO, Keonjhar to adjust the said amount. Accordingly, on getting information/figures from DFO, Keonjhar Wildlife Division, Anadapur vide letter No. 5547 dt 21.11.2024, DFO, Keonjhar adjusted Rs 1, 87, 30,000/- vide letter No. 9699/6F-Mining-19/2024 dt 28.11.2024 which includes Rs 1,40,48,800/- to be utilized for implementation of the CA scheme.

The copy of the correspondences in this regard is enclosed as **Annexure-II Series** for reference.

iii. The land identified for raising Compensatory Afforestation shall be notified by the State Government under Section-4 or PF under Section-29 of the Indian Forest Act, 1927 or under the relevant Section (s) of the local Forest Act, as the case may be, before the Stage-II approval;

In compliance, the non-forest Govt. land identified in village Sorada over 22.697 ha in a single patch towards CA has been notified by the State Govt. vide order No.FE-DIV-FLD-0044-2022-{10F-(Cons)-21/2022}-12926/FE&CC dt 19.07.2024 as "**Sorada-A Protected Forests**" under Section-33 of Odisha Forest Act, 1972 (Odisha Act-14 of 1972). The copy of the RoR and PF Notification is enclosed as **Annexure-III**.

iv. The cost of survey, demarcation and erection of permanent pillars, if required on the identified CA land, shall be deposited in advance with the Forest Department by the user agency. The CA will be maintained for 10 years. The scheme may include afforestation of indigenous species with appropriate provision for anticipated cost increase for works scheduled for subsequent years;

In compliance, OMC has already fixed permanent RCC pillars of 4' high at each corner points of the CA land boundary spread over 22.697 ha as per the DGPS survey vetted by ORSAC. The copy of the photographs of pillars posted is enclosed as **Annexure-IV**. The CA scheme has been technically approved with a maintenance period of 10 years and includes afforestation of indigenous species with appropriate provision for anticipated cost increase for works scheduled for subsequent years by utilizing the funds deposited by OMC online. The copy of the approved CA scheme is enclosed herewith as **Annexure-V**.

v.25% of the CA cost additionally will be spent towards soil and moisture conservation activities in the proposed CA area as per site requirement and deposited in CAF.

In compliance, it is submitted that an amount of Rs 1, 40, 48,800/- towards cost of CA over 22.697 ha includes 25% of the CA cost towards soil and moisture conservation activities as per site requirement and approved cost norm by PCCF (FD & NO FC Act).

vi. The State Government shall ensure that non-forest land of 22.697 ha proposed for raising compensatory afforestation is made available free from all encumbrances and detail of the same shall be submitted along with the compliance of 'in-principle' approval.

In compliance, It is submitted that the non-forest Govt. land over 22.697 ha in village Sorada under Pottangi Tahasil has been jointly verified by Revenue and Forest Officers. The verification team certified that the land identified for Compensatory afforestation is free from all encumbrances with all other details. The copy of the jointly verified certificate is enclosed as **Annexure-VI**.

vii. The State Government shall ensure that the non-forest land of 46.082 ha identified for raising compensatory afforestation in lieu of diversion of 342.602 ha of forest land granted on 8.10.2014, already transferred and mutated in favour of the State Forest Department, is notified as PF under the Indian Forest Act or local Act and a copy of the same shall be submitted along with the compliance of 'in-principle' approval.

In compliance, it is submitted that the land identified in village Asanbahali over 30.8047 ha under Ghasipura Tahasil and in village Lungajhar over 15.2771 ha under Bansapal Tahasil of Keonjhar district towards CA in lieu of diversion of 342.602 ha of forest land granted on dt.8.10.2014 has already been transferred and mutated in favour of the State Forest Department and also notified as PF by the State Govt. The details are given as under:

Sl. No.	Name of the village and Tahasil	Area in ha	Name of the protected forests	Govt. order NO. and date
1	Asanbahali GHASIPURA TAHASIL	30.8047	Asanabahali Protected Forests: Under Section-33 of Odisha Forest Act, 1972 (Odisha Act-14 of 1972).	10 F (Div)-36/2012-6143/F&E dt 25.08.2012.
2	Lungajhar BANSAPAL TAHASIL	15.2771	Lungajhar-A Protected Forests: Under Section-33 of Odisha Forest Act, 1972 (Odisha Act-14 of 1972).	10 F (Div)-36/2012-16137/F&E dt 25.08.2012.
	Total	46.0818 ha or say 46.082 ha		

The copy of the RoRs and PF Notifications are enclosed as **Annexure-VII series**.

3. Net Present Value:

i. User Agency shall transfer the funds towards the cost of Net Present Value (NPV) of the forest land being diverted under this proposal from the User Agency, as per the orders of the Hon'ble Supreme Court of India dated 28.03.2008, 24.04.2008 and 09.05.2008 in Writ Petition (Civil) No. 202/1995 and the guidelines given under para 3 of the Chapter-3 of the Consolidate Guidelines and Clarifications issued under the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and Van (Sanrakshan Evam Samvardhan) Rules, 2023 published by the Ministry on 29.12.2023, through e-payment module on PARIVESH portal, into the account of CAMPA of the State concerned, managed by the National Authority (CAMPA);

In compliance, it is submitted that the entire cost towards NPV as per the demand and instruction given by DFO, Keonjhar have been transferred by OMC. The details are given as under:

Demand raised by DFO		Amount paid by OMC		
Letter No and date	Amount in Rs	Letter No and date	Amount in Rs	DD/UTR No. & date
No.322/6F-Mining/2020 dt.11.01.2021	27, 71, 46, 750/-	dt.11.01.2021	27, 71, 46, 750/-	SBINR 12021011100076046 dt.11.01.2021.
No. 8445/6F-Mining-19/ 2024 dt 17.10.2024	2,44,30,067/-	-	2,44,30,067/-	Adjusted vide letter No. 9699/6F-Mining-19/ 2024 dt 28.11.2024 by DFO, Keonjhar from the amount paid earlier.

The copy of the demand letter and RTGS receipts in support of proof of the deposits made by OMC is enclosed herewith as **Annexure-VIII** for reference.

ii. At the time of payment of the Net Present Value (NPV) at the present rate, the user agency shall furnish an undertaking to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India; B-49/1998-FC(PT1) I/64942/2024

In compliance, OMC has submitted an undertaking at Sl.No.2 of Annexure-I to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India.

4. The penalty for violation of the Adhiniyam for using the 22.697 ha of forest land w.e.f. 9.03.2015 onwards and executing leases by including 22.697 ha of forest land without the prior approval of the Central Government under the Adhiniyam shall be equal to 5 times the normal rates of NPV over 22.697 ha

of forest land w.e.f. 9.03.2015 onwards plus 12 percent simple interest from the date of raising of such demand till the deposit is made;

In compliance, OMC has transferred Rs 11,62,06,277.00 online as per the challan generated from PARIVESH portal through RTGS mode vide UTR No. UBINJ 24163871690 in ORISSA CAMPA, A/c No. 1508258142115320, QFSC Code: UBIN 0996335, Union Bank of India, FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027 as per the demand raised by DFO, Keonjhar and vetted by PCCF (FD & NO, FC Act) towards penalty for violation of the Adhiniyam for using 22.697 ha of forest land and executing leases by including 22.697 ha of forest land without the prior approval of the Central Government under the Adhiniyam. The copy of the demand letter and RTGS receipt in support of proof of deposit by OMC is enclosed as Annexure-IX Series for reference.

5. Action against the officers responsible for violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, shall be taken under 3 (A)/3 (B) or under relevant local Act of the State and/or Central Act for unauthorized use of forest land without the permission;

In compliance, it is submitted that the mining operation and use of forest land continued in the broken up forest land by ex-lessee.

6. Compensatory levies to be realized from the User Agency under the project shall be transferred/ deposited, through e-payment module on PARIVESH portal (<https://parivesh.nic.in/>), into the account of CAMPA of the State concerned, managed by the National Authority (CAMPA);

In compliance, it is submitted that all the compensatory levies have been deposited by OMC online and details are given in Annexure-X.

7. The KML files of diverted area, the CA areas, the proposed SMC treatment area and the WLMP area shall be uploaded on the e-Green watch portal with all requisite details prior to 'Final' approval;

In compliance, it is submitted that OMC vide letter No.3473/OMC/F&E/2024 dt 26.02.2024 (Annexure-XI) has submitted a CD containing the KML files of total diversion area, the CA area, the proposed SMC treatment area within ML and the WLMP area (Core and Buffer) to DFO, Keonjhar to upload the same on the e-Green watch portal. Necessary compliance to this effect may kindly be recommended.

10. Following activities, as per approved plan/ schemes, shall be undertaken in the lease area by the User Agency under the supervision of the State Forest Department. Approved scheme/plan shall be submitted to the Ministry along with compliance of 'in-principle' approval:

i. Mitigation measures, to minimize soil erosion and choking of stream, shall be implemented within a period of two years with effect from the date of issue of order of diversion of forest land, in accordance with the approved Plan in consultation with the State Forest Department;

In compliance, it is submitted that a scheme for mitigative measures to minimize soil erosion and choking of stream have been approved by RCCF, Rourkela vide letter No.1824/3F-817/2024 dt 30.04.2024 with a total financial outlay of Rs 69,75,900/-. An undertaking by OMC at **Sl.No.3 of Annexure-I** is enclosed herewith to implement the scheme by OMC at the approved financial outlay in the lease area under the supervision of the State Forest Department within a period of three years with effect from the date of issue of Stage-II forest clearance. The copy of the approved scheme is enclosed as Annexure-XII.

ii. Planting of adequate drought hardy plant species and sowing of seeds, in the appropriate area within the mining lease to arrest soil erosion in accordance with the approved scheme;

In compliance, it is submitted that the degraded forest area within 50 mtr on either side of Dalko Nala with 200 plants/ha have been considered as the appropriate area within the mining lease for

planting draught hardy species. In this regard, a scheme for planting of adequate drought hardy plant species and sowing of seeds to arrest soil erosion has been considered in the said area have been approved by RCCF, Rourkela vide letter No.1824/3F-817/2024 dt 30.04.2024 with a total financial outlay of Rs 2,80,49,900/-. An undertaking by OMC at **Sl.No.4 of Annexure-I** is enclosed herewith to implement the scheme by OMC at the approved financial outlay in the lease area under the supervision of the Forest Department within a period of three years with effect from the date of issue of Stage-II forest clearance. The copy of the approved scheme is enclosed as **Annexure-XIII**.

iii. Construction of check dams, retention/toe walls to arrest sliding down of the excavated material along the contour in accordance with the approved scheme;

In compliance, it is submitted that a scheme for construction of check dams, retention/toe walls to arrest sliding down of the excavated material along the contour has been approved by RCCF, Rourkela vide letter No.1824/3F-817/2024 dt 30.04.2024 with a total financial outlay of Rs 3,39,80,100/-. An undertaking by OMC at **Sl.No.5 of Annexure-I** is enclosed herewith to implement the scheme by OMC within the ML area at the approved financial outlay under the supervision of the State Forest Department. The copy of the approved scheme is enclosed as **Annexure-XIV**.

iv. Stabilize the overburden dumps by appropriate grading/benching; in accordance with the approved scheme, so as to ensure that angles of repose at any given place is less than 28°; and

In compliance, it is submitted that a scheme to Stabilize the overburden dumps by appropriate grading/benching, so as to ensure that angles of repose at any given place is less than 28° has been approved by RCCF, Rourkela vide letter No.1824/3F-817/2024 dt 30.04.2024 with a total financial outlay of Rs 1,10,31,600/-. An undertaking by OMC at **Sl.No.6 of Annexure-I** is enclosed herewith to implement the scheme by OMC within ML area at the approved financial outlay under the supervision of the State Forest Department. The copy of the approved scheme is enclosed as **Annexure-XV**.

v. No damage shall be caused to the top-soil and the user agency will follow the top soil management plan;

In compliance, it is submitted that the entire virgin forest land of the ML has been disturbed and the top soil generated has been utilized for plantation in safety zone and dump site. No top soil is likely to be generated in future. Therefore, no additional financial provision has been proposed in the scheme. This has been approved by RCCF, Rourkela vide letter No.1824/3F-817/2024 dt 30.04.2024 and a copy is enclosed as **Annexure-XVI**. An undertaking by OMC at **Sl.No.7 of Annexure-I** is enclosed herewith to implement the scheme by OMC within ML area if there is any generation of top soil.

11. User agency either himself or through the State Forest Department shall undertake gap planting and soil and moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40), if any, located in the area within 100 meter from outer perimeter of the mining lease. The plan for plantation and SMC activities will be prepared and submitted to MoEF & CC along with the compliance of 'in-principle' approval;

In compliance, it is submitted that the area within 100 mtr strip from the outer perimeter of the mining lease comprises 5.191 ha of non-forest and 74.402 ha of MDF & VDF as per DSS. A scheme to undertake gap planting and soil & moisture conservation activities over 5.191 ha of non-forest and open forest area and implementation of ANR without gap plantation over 74.402 ha of MDF & VDF area to restock and rejuvenate the degraded open forests having crown density less than 0.40 within 100 meter from outer perimeter of the mining lease has been approved by RCCF, Rourkela vide letter No. 1824/3F-817/2024 dt 30.04.2024 with a total financial outlay of Rs 46, 81, 200/-. OMC requested PCCF (FD & NO, FC Act) for adjustment of Rs 46, 81,200/- from the amount already paid

earlier. In reply, PCCF (FD & NO, FC Act) vide Memo No.22874 dt 14.11.2024 permitted DFO, Keonjhar to adjust the said amount. Accordingly, on getting information/figures from DFO, Keonjhar Wildlife Division, Anandapur vide letter No. 5547 dt 21.11.2024, DFO, Keonjhar adjusted Rs 1, 87, 30,000/- vide letter No. 9699/6F-Mining-19/2024 dt 28.11.2024 which includes Rs 46,81,200/- to be utilized for implementation of the CA scheme.

The copy of the approval letter along with the scheme, SMC measures, location map and copy of the adjustment letter in respect of payment by OMC is enclosed as **Annexure-XVII**.

12. The User Agency shall prepare a list of existing village tanks and other water bodies with GPS co-ordinates located within five km from the mine lease boundary. This list is to be duly verified by the concerned Divisional Forest Officer. The User Agency shall regularly undertake desilting of these village tanks and other water bodies so as to mitigate the impact of siltation of such tanks/water bodies. A detailed approved plan for desilting of identified ponds and water bodies to be prepared in consultation with forest department and shall be submitted to MoEF& CC along with the compliance of 'in-principle' approval;

In compliance, it is submitted that OMC has prepared a list of village tanks and other water bodies located within 5.0 km from the ML boundary with GPS co-ordinates and distance between corner points duly authenticated by DFO, Keonjhar. The scheme for desilting at regular interval has been approved by RCCF, Rourkela vide letter No.1824/3F-817/2024 dt 30.04.2024 with a total financial outlay of Rs 53, 81, 300/-. An undertaking by OMC at **Sl.No.8 of Annexure-I** is enclosed herewith to implement the scheme by OMC at the approved financial outlay under the supervision of the State Forest Department. The copy of the list of the water tanks/other water bodies duly authenticated and approved scheme for desilting is enclosed as **Annexure-XVIII**.

13. Safety Zone Management: Following activities, at project cost, shall be undertaken by the user agency for the management of safety zone as per relevant guidelines issued by the Ministry's guidelines:

i. User agency shall ensure demarcation of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its fencing, protection and regeneration by erecting adequate number of 6 feet high RCC boundary pillars inscribed with DGPS coordinates with barbed wire fencing and deploying adequate number of watchers under the supervision of the State Forest Department;

In compliance, it is submitted that the total safety zone area of 11.58 ha (7.5 mtr strip all along the inner side of the ML boundary) have been covered with plantation. In the current proposal 1.462 ha of forest area as on 25.10.1980 has been considered for plantation in safety zone. The total safety zone area including the area considered in the current proposal has been demarcated with 6.0 feet high RCC pillars with GPS co-ordinates and barbed wire fencing. The area is under watch and ward to protect the green belt. Further a scheme for plantation @ 500 plants/ha in over 1.462 ha of forest area within the safety zone has been approved by RCCF, Rourkela vide letter No.1824/3F-817/2024 dt 30.04.2024 with a total financial outlay of Rs 38, 50, 700/-. An undertaking by OMC at **Sl.No.9 of Annexure-I** is given to implement the scheme by OMC under the supervision of the State Forest Department. The copy of the approved scheme is enclosed as **Annexure-XIX**.

ii. Boundary of the safety zone of the mining lease, adjacent to habitation/roads, should be properly fenced by the user agency;

In compliance, it is submitted that fencing along the safety zone boundary with barbed wire adjacent to the habitation/road shall be done by OMC as per the cost structure included in the approved scheme. An undertaking to this effect is given at **Sl.No.10 of Annexure-I**.

iii. Safety zone shall be maintained as green belt around mining lease and to ensure dense canopy in the area, regeneration shall be taken up in this area by the user agency at project cost under the supervision of the State Forest Department; and

In compliance, it is submitted that a scheme for maintenance of the safety zone as green belt around mining lease and to ensure dense canopy in the area has been approved by RCCF, Rourkela vide letter No.1824/3F-817/2024 dt 30.04.2024 with a total financial outlay of Rs 38,50,700/- as against condition no.13 (i). Adequate steps shall be taken to regenerate the vegetation under the supervision of the State Forest Department. An undertaking by OMC at **Sl.No.11 of Annexure-I** is enclosed herewith to implement the scheme by OMC under the supervision of the Forest Dept.

iv. The State Government and the user agency shall ensure that safety zone is maintained as per the prescribed norms;

In compliance, an undertaking by OMC is enclosed at **Sl.No.12 of Annexure-I** to ensure that safety zone is maintained as per the prescribed norms. All the above conditions (i to iv) have been complied through the approved scheme with photographs of safety zone pillars and enclosed herewith as **Annexure-XX**.

14. The cost of felling of trees shall be deposited by the User Agency with the State Forest Department;

In compliance, OMC has furnished an undertaking at **Sl.No.13 of Annexure-I** to deposit the cost towards tree felling with the State Forest Department on receiving the demand and tree shall be felled in a phased manner as per the requirement in the approved Mining Plan with prior permission of DFO, Keonjhar.

15. Trees should be felled in phased manner as per the requirement in the approved Mining Plan with prior permission of concerned DFO;

In compliance, OMC has submitted an undertaking at **Sl.No.14 of Annexure-I** to carry out tree felling in a phased manner as per the requirement in the approved Mining Plan and with prior permission of DFO, Keonjhar.

16. The user agency shall explore the possibility of translocation of maximum number of trees identified to be felled and shall ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department;

In compliance, it is submitted that OMC shall explore the possibility of translocation of maximum number of trees identified to be felled and shall ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department. An undertaking to this effect has been given at **Sl.No.15 of Annexure-I**.

17. A Site Specific Wildlife Management Plan to mitigate the impact of project on wildlife of the area shall be prepared by the state Government in consultation with the PCCF & Chief Wildlife Warden of State at project cost and an approved copy of the same along with detail of deposition of funds into the CAMPA account shall be submitted to the Ministry along with the compliance of 'in-principle' approval;

In compliance, it is submitted that a Site Specific Wildlife Management Plan to mitigate the impact of project on wildlife of the area has been prepared by DFO, Keonjhar and approved by the PCCF & Chief Wildlife Warden, Odisha vide Memo No.7059 dt 27.06.2024 with a total financial outlay of Rs 323.58 lakhs. As per the instruction, DFO, Keonjhar vide letter No.5821/6F-Mining-19/2024 dt 06.07.2024 raised a demand on OMC for Rs 323.58 lakh to deposit online. Basing on the request made by OMC for adjustment of the said amount from the amount already paid earlier, PCCF (FD & NO, FC Act) vide Memo No.22874 dt 14.11.2024 permitted DFO, Keonjhar to adjust the amount. Accordingly, on getting information/figures from DFO, Keonjhar Wildlife Division, Anadapur vide

letter No. 5547 dt 21.11.2024, DFO, Keonjhar adjusted Rs 3,23,58,000/- vide letter No. 9699/6F-Mining-19/2024 dt 28.11.2024 to be utilized for implementation of the Management Plan.

The copy of the approval and approved SSWLCP, demand letter by DFO and correspondences regarding adjustment of the said amount is enclosed as **Annexure-XXI**.

18. The User Agency shall undertake mining in a phased manner after taking due care for reclamation of the mined over area. The concurrent reclamation plan as per the approved mining plan shall be executed by the User Agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the concern Addl. Principle Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities area satisfactorily executed;

In compliance, it is submitted that in order to achieve the production target of 10.0 million tons of iron ore, operation within the ML area has been approved by IBM in the MP vide letter No. MPM/A/15-ORI/BHU/2021-22.1241 dt 18.11.2021. Considering the nature of the ore occurrences, concurrent reclamation is not possible from the first year of operation. It has been envisaged for back filling of exhausted quarry and Dump stabilization in the five year plan period from 2020-21 to 2024-25. To begin with, Jajang-Gangeiguda quarry over 46.30 ha shall be back filled. Thereafter, Apahatu-Behera Quarry over 23.30 ha shall be back filled followed by Jajang-Langalotta quarry over 25.36 ha.

Besides Dump-4 shall be stabilized over 4.50 ha by plantation. During conceptual stage the total mined out area reclaimed shall be 71.35 ha, Water Reservoir shall be 71.07 ha, Stabilized waste shall be 40.69 ha and Regrassing shall be done over 6.30 ha of the ML area. The copy of the reclamation details of the approved mining plan is enclosed as **Annexure-XXII** for reference.

The reclamation plan shall be strictly followed as per the mining plan approved by IBM. An undertaking to this effect and submission of annual report on implementation of the above to the CCF (FD & NO) and Regional Officer, IRO, Bhubaneswar is given at **Sl.No.16 of Annexure-I**.

19. The User Agency shall comply with the Hon'ble Supreme Court order on re-grassing, and re-grow the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner;

In compliance, OMC has furnished an undertaking at **Sl.No.17 of Annexure-I** to comply with the Hon'ble Supreme Court order on regrassing and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner.

20. Period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under;

In compliance, OMC has furnished an undertaking at **Sl.No.18 of Annexure-I** to abide by the provision that the period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under.

21. The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;

letter No. 5547 dt 21.11.2024, DFO, Keonjhar adjusted Rs 3,23,58,000/- vide letter No. 9699/6F-Mining-19/2024 dt 28.11.2024 to be utilized for implementation of the Management Plan.

The copy of the approval and approved SSWLCP, demand letter by DFO and correspondences regarding adjustment of the said amount is enclosed as **Annexure-XXI**.

18. The User Agency shall undertake mining in a phased manner after taking due care for reclamation of the mined over area. The concurrent reclamation plan as per the approved mining plan shall be executed by the User Agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the concern Addl. Principle Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities area satisfactorily executed;

In compliance, it is submitted that in order to achieve the production target of 10.0 million tons of iron ore, operation within the ML area has been approved by IBM in the MP vide letter No. MPM/A/15-ORI/BHU/2021-22.1241 dt 18.11.2021. Considering the nature of the ore occurrences, concurrent reclamation is not possible from the first year of operation. It has been envisaged for back filling of exhausted quarry and Dump stabilization in the five year plan period from 2020-21 to 2024-25. To begin with, Jajang-Gangeiguda quarry over 46.30 ha shall be back filled. Thereafter, Apahatu-Behera Quarry over 23.30 ha shall be back filled followed by Jajang-Langalotta quarry over 25.36 ha.

Besides Dump-4 shall be stabilized over 4.50 ha by plantation. During conceptual stage the total mined out area reclaimed shall be 71.35 ha, Water Reservoir shall be 71.07 ha, Stabilized waste shall be 40.69 ha and Regrassing shall be done over 6.30 ha of the ML area. The copy of the reclamation details of the approved mining plan is enclosed as **Annexure-XXII** for reference.

The reclamation plan shall be strictly followed as per the mining plan approved by IBM. An undertaking to this effect and submission of annual report on implementation of the above to the CCF (FD & NO) and Regional Officer, IRO, Bhubaneswar is given at **Sl.No.16 of Annexure-I**.

19. The User Agency shall comply with the Hon'ble Supreme Court order on re-grassing, and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner;

In compliance, OMC has furnished an undertaking at **Sl.No.17 of Annexure-I** to comply with the Hon'ble Supreme Court order on regrassing and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner.

20. Period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under;

In compliance, OMC has furnished an undertaking at **Sl.No.18 of Annexure-I** to abide by the provision that the period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under.

21. The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;

In compliance, it is submitted that OMC has obtained Environment Clearance for production of 10.0 million tons of iron ore vide letter No. J-11015/595/2007-IA.II (M) dt 07.05.2024. The copy of the grant order of EC is enclosed as **Annexure-XXIII**.

22. No labour camp shall be established on the forest land and the User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas;

In compliance, OMC has furnished an undertaking at **Sl.No.19 of Annexure-I** to provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas and no labour camp shall be established on the forest land.

23. The boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates;

In compliance, OMC has submitted an undertaking at **Sl.No.20 of Annexure-I** to demarcate the boundary of the diverted forest land, mining lease and safety zone on ground by erecting four feet high RCC pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates.

25. The layout plan of the mining plan/ proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that specified in the proposal;

In compliance, OMC has given an undertaking at **Sl.No.21 of Annexure-I** that the layout plan of the mining plan/proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that indicated in the proposal.

26. The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;

In compliance, OMC has given an undertaking at **Sl.No.22 of Annexure-I** that the forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government

27. No damage to the flora and fauna of the adjoining area shall be caused;

In compliance, OMC has given an undertaking at **Sl.No.23 of Annexure-I** that no damage to the flora and fauna of the adjoining area shall be caused.

28. Any other condition that the concerned Regional Office of this Ministry may stipulate with the approval of competent authority in the interest of conservation, protection and development of forests & wildlife;

In compliance, OMC has given an undertaking at **Sl.No.24 of Annexure-I** to abide by any other condition that the Regional Office, Bhubaneswar may stipulate with the approval of competent authority in the interest of conservation, protection and development of forests & wildlife.

29. The user agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project; and

In compliance, OMC has given an undertaking at **Sl.No.25 of Annexure-I** to comply with all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project.

30. Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019;

In compliance, OMC has given an undertaking at **Sl.No.26 of Annexure-I** not to commit any violation which otherwise will amount to violation of Forest (Conservation) Act, 1980 and shall abide by the action as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019.

31. The User Agency shall submit the annual self-compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly;

In compliance, OMC has given an undertaking at **Sl.No.27 of Annexure-I** to submit the annual self-compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly;

32. The State Government and user agency shall ensure compliance to all conditions stipulated in the Stage-I approval letter dated 06.03.2023 for which undertakings have been obtained from the user agency and also the provisions of the all Acts, Rules, Regulations and Guidelines, relevant Hon'ble Court Order (S) and NGT Order (S), if any, or the time being in force, including compliance of the Schedule Tribes and Other Traditional Forest Dwellers (Recognition of Forests Rights) Act, 2006, before handing over the forest land to the user agency;

In compliance, OMC has given an undertaking at **Sl.No.28 of Annexure-I** to comply all conditions stipulated in the Stage-I approval letter dated 06.03.2023 for which undertakings have been submitted and also the provisions of the all Acts, Rules, Regulations and Guidelines, relevant Hon'ble Court Order (S) and NGT Order (S), if any, or the time being in force, including compliance of the Schedule Tribes and Other Traditional Forest Dwellers (Recognition of Forests Rights) Act, 2006, before taking over the forest land from the Forest Department.

33. The compliance report shall be uploaded on e-portal (<https://parivesh.nic.in/>).

In compliance, OMC has given an undertaking at **Sl.No.29 of Annexure-I** to upload the compliance report on e-portal (<https://parivesh.nic.in/>).

Therefore, it is requested to examine the above compliance against the conditions stipulated in the stage-I grant order issued by MoEF & CC, Govt. of India and recommend to higher quarter for grant of stage-II forest clearance under section 2 of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 over 22.697 ha of forest land pertaining to Jhilling-Longalotta Iron Ore Mines of OMC Ltd to continue mining operation at the approved scale.

An early action is solicited.

Encls. as above.

Yours faithfully,


29/11/24
Executive Director (F&E)

UNDERTAKINGS

[As per condition No. 1, 3.ii., 10.i, 10.ii, 10.iii, 10.iv, 10.v. 12, 13.i., 13.ii, 13.iii, 13.iv, 14, 15, 16,18, 19, 20, 22, 23, 25,26, 27, 28, 29, 30, 31, 32 and 33 of the stage-I grant order No.8-49/1998-FC dt 09.02.2024 issued by MoEF & CC, Govt. of India pertaining to Jilling-Longalatta Iron ore mines for diversion of 22.697 ha of forest area.]

I Sri Debendra Kumar Nanda, OAS, Chief Vigilance Officer and Land Officer, Authorized Signatory of Odisha Mining Corporation Limited do hereby undertake the following against the condition stipulated in the grant order of stage-I FC accorded by MoEF & CC Govt. of India vide grant order No.8-49/1998-FC (PT 1) dt. 09.02.2024 for grant of stage-II Forest Clearance over balance 22.697 ha included within Jilling-Longalatta Iron Ore mining lease of OMC coming under Keonjhar Forest Division of Keonjhar district, Odisha:

Sl. No.	Condition No.	Undertakings by OMC
1	1	To pursue the matter with the State Government to keep the legal status of the forest land diverted under this approval unchanged.
2	3. ii	To pay the additional NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India.
3	10.i	To implement the approved scheme for mitigative measures to minimize soil erosion and choking of streams within ML area at the approved financial outlay of Rs 6975900/- under the supervision of the State Forest Department within a period of three years from the date of issue of stage-II Forest Clearance.
4	10.ii	To implement the approved scheme to plant adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion at the approved financial outlay of Rs 2,80,49,900/-.
5	10.iii	To implement the approved scheme to construct check dams, retention/toe walls to arrest sliding down of the excavated material along the contour within the mining lease at the approved financial outlay of Rs 3,39,80,100/-.
6	10.iv	To implement the approved scheme to stabilize the overburden dumps by appropriate grading/benching within the mining lease at the approved financial outlay of Rs 1,10,31,600/-.
7	10.v.	To implement the approved scheme so that no damage shall be caused to the top-soil and follow the top soil management plan, if there will be any generation in future.
8	12	To implement the approved scheme for desilting of the village tanks and other water bodies within 5.0km of the ML boundary duly authenticated by Forest Department so as to mitigate the impact of siltation of such tanks/water bodies at the approved financial outlay of Rs 53,81,300/- under the supervision of the State Forest Department.

Sl. No.	Condition No.	Undertakings by OMC
9	13.i.	To demarcate the safety zone and carry out its fencing, protection and regeneration by erecting adequate number of 6 feet high RCC boundary pillars inscribed with DGPS coordinates with barbed wire fencing and deploying adequate number of watchers under the supervision of the. State Forest Department and as per the approved scheme with total financial outlay of Rs 38, 50,700/-.
10	13.ii.	To fence the boundary of the safety zone of the mining lease, adjacent to habitation/roads properly at the project cost.
11	13.iii.	To maintain the Safety zone as green belt around mining lease and to ensure dense canopy in the area and regeneration shall be taken up in this area by OMC at project cost under the supervision of the State Forest Department
12	13.iv.	To maintain the safety zone area as per the prescribed norms.
13	14	To deposit the cost of felling of trees by OMC with the State Forest Department.
14	15	To undertake felling of trees in a phased manner as per the requirement in the approved Mining Plan and with prior permission of DFO, Keonjhar.
15	16	To explore the possibility of translocation of maximum number of trees identified to be felled and ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department
16	18	To carry out mining in a phased manner after taking due care for reclamation of the mined over area as per the mining plan approved by IBM including execution of concurrent reclamation plan by OMC if possible, from the very first year and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. OMC, further undertakes to follow the concurrent reclamation plan or else obey the orders of the Nodal Officer or the concern Addl. Principle Chief Conservator of Forests (Central) on suspension of the mining activities till such time, such reclamation sites are satisfactorily executed.
17	19	That OMC shall comply with the Hon'ble Supreme Court order on re-grassing and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner.
18	20	To abide by the provision that the period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under;
19	22	That no labour camp shall be established on the forest land and OMC shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas.
20	23	That the boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates;

Sl. No.	Condition No.	Undertakings by OMC
21	25	That the layout plan of the mining plan/proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that specified in the proposal;
22	26	That the forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;
23	27	That no damage to the flora and fauna of the adjoining area shall be caused;
24	28	To abide by any other condition that the Regional Office, Bhubaneswar may stipulate with the approval of competent authority in the interest of conservation, protection and development of forests & wildlife.
25	29	To comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project.
26	30	That no violation shall be committed of Forest (Conservation) Act, 1980 and shall abide by the action as prescribed in Para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019.
27	31	To submit the annual self-compliance report in respect of the above stated conditions to the State Government, Regional Office, Bhubaneswar and to MoEF & CC by the end of March every year regularly;
28	32	To comply all conditions stipulated in the Stage-I approval letter dated 06.03.2023 for which undertakings have been submitted and also the provisions of the all Acts, Rules, Regulations and Guidelines, relevant Hon'ble Court Order (S) and NGT Order (S), if any, or the time being in force, including compliance of the Schedule Tribes and Other Traditional Forest Dwellers (Recognition of Forests Rights) Act, 2006, before taking over the forest land from the Forest Department.
29	33	To upload the compliance report on e-portal (https://parivesh.nic.in/).

(Sri Debendra Kumar Nanda, OAS)
Chief Vigilance Officer and Land Officer,
Authorized Signatory

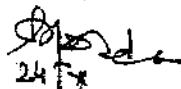
ଉତ୍ତରାଧିକାରୀ ଶ୍ରୀ ଡି. କୁମାର ନନ୍ଦା
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ଉପରୋକ୍ତ ଲେଖନୀ ଉପରେ

Financial Outlay for **Compensatory Afforestation Scheme** over an area of **22.697 ha** of **non-forest Govt. land** identified in village **Sorada** under **Pottangi Tahasil** of **Semiliguda Forest Range** in **Koraput District** of **Koraput Forest Division** against diversion of forest land for **Jilling-longlota Mining lease** of **M/s OMC Ltd** as per approved One-time Cost Norm

Sl. No.	Description	Amount (Rs.)
1.	Cost of AR Plantation @ 1000 Plant per ha over 22.697 ha of non-forest land @ Rs.2,58,777/- per ha with 10 years maintenance	58,73,462.00
2.	Cost of Angle Iron & Chain Link Wire Mesh Fencing over 2507.49 RMT with 10 years maintenance @ Rs.4,62,316/- per ha per 250 RMT (As proposed by the DFO, Koraput Forest Division)	46,47,041.00
3.	Cost of SMC activities like staggered trenches, percolation pits, contour trench, graded earthen bund, LBCD, wire mesh LBCD, Sub-Surface Dyke and WHS as per the slope and site requirement @ Rs.39,284/- per ha over 22.697 ha with 5 years maintenance	8,91,629.00
4.	Watering by Diesel Pump Set fitted with borewell (1 Borewell for 5 ha Plantation) @ Rs.5,27,321/- for 5 No. of borewell (As proposed by the DFO, Koraput Forest Division)	26,36,605.00
Grand Total		1,40,48,737.00 or rounded off to 1,40,48,800.00

(Rupees One Crore Forty Lakhs Forty Eight Thousand Eight Hundred) only

Approved



Principal Chief Conservator of Forests
Forest Diversion & Nodal Officer, FC Act

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



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfo.keonjhar@odisha.gov.in

No. 2690 /Mining-

Dated, Keonjhar, the 28.03.2024

To

The Executive Director,
M/s OMC Ltd, OMC House,
Bhubaneswar- 751001

Sub: Proposal for seeking prior approval of the Central Govt. under section- 2(1)(ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 in favour of M/s Odisha Mining Corporation Ltd. for non-forestry use of 22.697 ha forest land of Jilling Longlota Iron Ore Block within the total mining lease area of 456.100 ha in Keonjhar District.

X-Sub: **Demand of funds towards Compensatory Afforestation Scheme over 22.697 ha identified in village Sorada under Pottangi Tahasil of Koraput Forest Division.**

Ref: Memo No. 4791 dated 27.02.2024 of Deputy Conservator of Forests (Nodal), O/o the PCCF & HoFF, Odisha, Bhubaneswar.

Sir

With reference to the aforementioned memo on the captioned subject, the Principal Chief Conservator of Forests, FD & NO, FC Act, O/o the PCCF & HoFF, Odisha, Bhubaneswar has approved the CA scheme over 22.697 ha identified in village Sorada under Pottangi Tahasil of Koraput Forest Division with financial outlay of **Rs. 1,40,48,800/-**.

Hence, you are requested to deposit the approved amount of **Rs. 1,40,48,800/- (Rupees one crore forty lakh forty-eight thousand eight hundred)** only towards the cost of Compensatory Afforestation Scheme through e-portal of MoEF&CC, Govt. of India as provided in the <https://parivesh.nic.in/> and the proof /evidence of the deposit of fund be submitted to this office for further necessary action at this end.

Yours faithfully,


Divisional Forest Officer,
Keonjhar Division.

Memo No. 2691 /Dated 28.03.24

Copy forwarded to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela /Principal Chief Conservator of Forests, FD & NO, 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 DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfo.keonjhar@odisha.gov.in

No. 2690 /Mining-
Dated, Keonjhar, the 28.03.2024

To

The Executive Director,
M/s OMC Ltd, OMC House,
Bhubaneswar- 751001

Sub: Proposal for seeking prior approval of the Central Govt. under section- 2(1)(ii) of the Van (Samrakshan Evam Samvardhan) Adhiniyam, 1980 in favour of M/s Odisha Mining Corporation Ltd. for non-forestry use of 22.697 ha forest land of Jilling Longlota Iron Ore Block within the total mining lease area of 456.100 ha in Keonjhar District.

X-Sub: **Demand of funds towards Compensatory Afforestation Scheme over 22.697 ha identified in village Sorada under Pottangi Tahasil of Koraput Forest Division.**

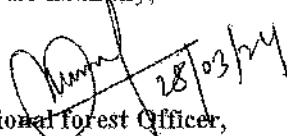
Ref: Memo No. 4791 dated 27.02.2024 of Deputy Conservator of Forests (Nodal), O/o the PCCF & HoFF, Odisha, Bhubaneswar.

Sir

With reference to the aforementioned memo on the captioned subject, the Principal Chief Conservator of Forests, FD & NO, FC Act, O/o the PCCF & HoFF, Odisha, Bhubaneswar has approved the CA scheme over 22.697 ha identified in village Sorada under Pottangi Tahasil of Koraput Forest Division with financial outlay of Rs. 1,40,48,800/-.

Hence, you are requested to deposit the approved amount of Rs. 1,40,48,800/- (Rupees one crore forty lakh forty-eight thousand eight hundred) only towards the cost of Compensatory Afforestation Scheme through e-portal of MoEF&CC, Govt. of India as provided in the <https://parivesh.nic.in/> and the proof /evidence of the deposit of fund be submitted to this office for further necessary action at this end.

Yours faithfully,


Divisional forest Officer,
Keonjhar Division.

Memo No. 2691 /Dated 28.03.24 

Copy forwarded to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela /Principal Chief Conservator of Forests, FD & NO, FC Act, O/o the PCCF&HoFF, Odisha, Bhubaneswar for favour of kind information and necessary action.


Divisional forest Officer,
Keonjhar Division.


28/3



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

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

Letter No. 3598 /6F-Mining-19/2024
Dated, Keonjhar the 3rd May 2024

To

The Executive Director (F&E),
M/s OMC Ltd, OMC House,
Bhubaneswar- 751001

Sub: Proposal for diversion of 22.697 ha Sabik Kissam forest land within the total mining lease area of 456.037 ha (As per DGPS Survey) of Jilling-Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District.

X-Sub: Demand of funds towards approved cost for the Scheme of Gap Planting and Soil and Moisture Conservation Activities to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of the mining lease.

Ref: Memo No.1824 dated 30.04.2024 of Regional Chief Conservator of Forests, Rourkela Circle, Rourkela.

Sir

With reference to the aforementioned letter on the captioned subject, this is to intimate that, in complying to the condition No.11 of Stage-I approval order dated 09.02.2024 of MoEF&CC, GoI, New Delhi, the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela has technically approved the scheme for Gap Planting and Soil and Moisture Conservation Activities to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of your Jilling-Longlota Iron Ore Mines with a total financial outlay of Rs.46,81,200/- (Rupees forty six lakh eighty one thousand two hundred) only.

Accordingly, you are requested to deposit the approved amount of Rs.46,81,200/- (Rupees forty six lakh eighty one thousand two hundred) only in Orissa CAMPA Account through e-portal of MoEF&CC, GoI as provided in the <https://parivesh.nic.in/> and the proof/evidence of the deposit of fund be submitted to this office for further necessary action at this end.

Yours faithfully,


Divisional forest Officer,
Keonjhar Division.

Memo No. 3599 /Dated. 03.05.24

Copy submitted to the Principal Chief Conservator of Forests, Forest Diversion (FD&NO), FC Act, O/o the Principal Chief Conservator of Forests, Odisha, Bhubaneswar for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 3600 /Dated. 03.05.24

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action with reference to his memo No.1824 dated 30.04.2024.


Divisional Forest Officer,
Keonjhar Division.



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

E-mail:- nodal.pccfodisha@gmail.com

Memo No. 22873 /9F (MG) - 70/2021

Dated, Bhubaneswar the 14th November' 2024

To

The Divisional Forest Officer
Keonjhar (WL) Division, Anandapur

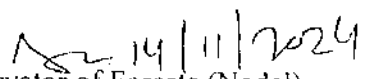
- Sub:** (i) Adjustment of compensatory levies in respect of non-forestry use of 22.697 ha forest land in respect of Jilling-Longlota Iron Ore Block within total mining lease of 456.100 ha in Keonjhar District of M/s OMC Ltd – regarding.
(ii) Adjustment of compensatory levies for grant of permission to surrender 98.731 ha out of 103.198 ha of approved forest area granted by MoEF & CC, Govt. of India over 106.016 ha of forest land pertaining to Daitari Conveyer Corridor – regarding.
- Ref:-** (i) Letter No. 8178/OMC/F&E/2024 dated 17.05.2024 of the Chief Vigilance Officer and Land Officer, Authorised Signatory, M/s OMC Ltd.
(ii) Your Memo No. 3698 dated 06.08.2024.

In inviting a reference to the subject cited above, it is to inform you that M/s OMC Ltd. vide letter at (i) has requested to adjust Rs 10,08,93,807/- deposited in CAMPA account due to surrender of 98.731 ha forest land in respect of diversion of 106.016 ha forest land. This amount includes the cost of SSWLCP of Rs 24,59,000/-.

The SSWLCP has been revised for Rs 2493.26125 lakh vide letter No.3126 dated 11.03.2024. In the approval letter, it has been categorically mentioned that the amount of Rs 455.65515 lakh shall be deposited in the CAMPA account as the user agency has deposited 2037.607 lakh as per approval of the previous SSWLCP. The deposited amount of Rs 20,37,60,700/- includes Rs 24,59,000/- as mentioned above. Thus, the amount to be adjusted comes to Rs.9,84,34,807/- (Rs 10,08,93,807 – Rs.24,59,000/-).

In this context, you had intimated vide letter at (ii) above, that out of total deposited amount of Rs 10,08,93,807/-, an amount of Rs 4,55,65,515/- is to be adjusted towards SSWLCP for extension of Daitari Railway Line leaving a balance amount of Rs 5,53,28,292/- unadjusted which is further to be adjusted towards compensatory levies as demanded, which is incorrect.

In view of the above, I am directed to request you to recalculate the amount to be adjusted and intimate the said figure to the DFO, Keonjhar Forest Division to enable the DFO, Keonjhar Forest Division to adjust the demanded amount from the unadjusted amount at his end.


Chief Conservator of Forests (Nodal)

Memo No. 22874 Dt. 14.11.2024

Copy forwarded to the DFO, Keonjhar Forest Division for information & necessary action with reference to his Memo No. 8665 dated 25.10.2024. He is requested to adjust the demanded amount from the unadjusted amount after receiving the revised information/figure from DFO, Keonjhar (WL) Division, Anandapur.

Memo No. 22875 /Dt. 14.11.2024 Chief Conservator of Forests (Nodal)

Copy forwarded to the RCCF, Rourkela Circle for information & necessary action with reference to Memo No. 8666 dated 25.10.2024 of DFO, Keonjhar Forest Division.

Memo No. 22876 /Dt. 14.11.2024 Chief Conservator of Forests (Nodal)

Copy forwarded to the FD, STR-cum-RCCF, Baripada Circle for information & necessary action with reference to Memo No. 3700 dated 06.08.2024 of DFO, Keonjhar (WL) Division, Anandapur.

Memo No. 22877 /Dt. 14.11.2024 Chief Conservator of Forests (Nodal)

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.

Chief Conservator of Forests (Nodal)



OFFICE OF THE
DIVISIONAL FOREST OFFICER, KEONJHAR WILDLIFE DIVISION, ANANDAPUR.
At/PO- Salapada, Dist- Keonjhar, Pin- 758020, e-mail id: dfo.keonjharwl@odisha.gov.in

Letter No. 5547/3WL (Lease)/ /2024
Dated, Anandapur the 21st November 2024.

To

The Divisional Forest Officer
Keonjhar Forest Division, Keonjhar.

Sub: - (i) Adjustment of Compensatory levies in respect of non-forestry use of 22.697 ha. of forest land in respect of Jilling Langelota Iron ore Block within total mining lease of 456.100 ha in Keonjhar District of OMC Ltd.-regarding.
(ii) Adjustment of compensatory levies for grant of permission to surrender 98.731 ha out of 103.198 ha of approved forest area granted by MoEF & CC, Govt. of India over 106.016 ha of forest land pertaining to Daitari Conveyer Corridor -regarding.

Ref: - (i) Letter No. 8178/OMC/F&E/2024, dt.17.05.2024 of OMC Ltd.
(ii) This office Memo No. 3698/3WL(Lease)/2024 dt 06.08.2024.
(iii) Memo No. 22874 dt. 14.11.2024 of the Chief Conservator of Forest (Nodal), O/o the PCCF & HoFF, Odisha, Bhubaneswar.

Sir,

In inviting a kind reference to the Letter Nos. cited above on the captioned subject, this is to inform you that, the Chief Conservator of Forest (Nodal), O/o the Principal Chief Conservator of Forests & HoFF, Odisha, Bhubaneswar vide his letter under reference has instructed the undersigned to recalculate the amount deposited in CAMPA account due to surrender of 98.731 ha of forest land in respect of diversion of 106.016 ha forest land as under:

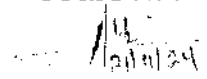
Rs.9,84,34,807/- (Rs 10,08,93,807.00 - Rs 24,59,000.00).

Out of the above amount, an amount of Rs. 4,55,65,515/- (Rupees Four crore fifty-five lakh sixty-five thousand five hundred fifteen) only has been adjusted towards Site Specific Wildlife Conservation Plan approved for extension of Daitrai Railway line leaving a balance amount of Rs. 5,28,69,292/- (Rupees five crore twenty-eight lakh sixty-nine thousand two hundred ninety-two) only unadjusted.

In this regard, this office Memo No. under reference stands modified to the above extent and Rs. 5,28,69,292/- (Rupees five crore twenty-eight lakh sixty-nine thousand two hundred ninety-two) only may be adjusted towards compensatory levies by your good office.


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

Yours faithfully,


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.


Memo No. 5548 /Date 21/11/2024 /

Copy forwarded to the Chief Conservator of Forest (Nodal), O/o the Principal Chief Conservator of Forests & HoFF, Odisha, Bhubaneswar for favour of kind information and necessary action with reference to his Memo No. 22873/9F(MG)-70/2021 dt. 14.11.2024.


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.


Memo No. 5549 /Date 21/11/2024 /

Copy forwarded to the Field Director, Similipal Tiger Reserve-cum-Regional Chief Conservator of Forests, Baripada Circle, Baripada for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.

Memo No. 5550 /Date 21/11/2024 /

Copy forwarded to the Chief Vigilance Officer and Land Officer, Authorized Signatory of OMC for information and necessary action.


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfo.keonjhar@odisha.gov.in

Memo No. 9699

/6F-Mining-19/2024

Dated, Keonjhar the

28th November, 2024

To

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

Sub: Proposal for Diversion of 22.697 ha of Sabik Kisam Forest Land within the total mining lease area of 456.037 ha of Jilling Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District-regarding.

Ref: 1. Your Memo No.22874 dated 14.11.2024, No.18551 dated 12.09.2024 & 17325 dated 28.08.2024.
2. Memo No.5547 dated 21.11.2024 of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

This is to inform you that, during auction of Jilling-Longlota Mines, M/s OMC Ltd had deposited the lump sum amount @ 7.50 lakh per ha over the forest area involved in mining lease to the tune of Rs. 27,71,46,750/- owing to Ministry's guidelines dated 31.03.2020.

As per your memo No.17325 dated 28.08.2024 the aforesaid amount will be adjusted towards actual compensatory levies payable at the time of approval relating to the project.

Further, it is mentioned vide your memo No.22874 dated 14.11.2024 to adjust the demanded amount of this division from the unadjusted amount, of the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur

Accordingly, the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur has intimated vide his memo No. 5547 dated 21.11.2024 that a sum of Rs.5,28,69,292/- are remained unadjusted, which may be adjusted towards the demanded amount of this division.

As such, the compensatory levies need to be adjusted from the above lump sum amount and unadjusted amount of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur, the details of which is depicted below:-

Sl. No.	Particulars	Amount in Rupees
1	Compensatory Afforestation against Pre-80 broken up forest land.	Rs.23,92,62,400/-
2	CA over (22.697 ha) + Gap planting.	Rs.1,87,30,000/- ✓
3	NPV (as demanded vide this office letter No 8445 dated 17.10.2024).	Rs.2,44,30,067/- ✓
4	Site Specific Wildlife Conservation Plan (as demanded vide this	Rs.3,23,58000/- ✓

	office letter No 5821 dated 06.07.2024).	
	Total Compensatory levies	Rs. 31,47,80,467/-
5	Lump sum amount deposited by the UA	Rs.27,71,46,750/- ✓
	Balance Amount to be paid by the User Agency	Rs. 3,76,33,717/-
6	Amount adjusted from the un-adjusted amount of Rs.5,28,69,292/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.	Rs. 3,76,33,717/-
	Balance amount to be paid	Nil

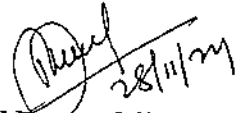
After adjustment of Rs. 3,76,33,717/-, a sum of Rs. 1,52,35,575/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur is still remain un-adjusted.

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


Divisional Forest Officer,
Keonjhar Division.


Memo No. 9700 /Dated 28.11.2024

Copy submitted to the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur for favour of kind information and necessary action with reference to his memo No. 5547 dated 21.11.2024.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9701 /Dated 28.11.2024

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9702 /Dated 28.11.2024

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

GOVERNMENT OF ODISHA
FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT

NOTIFICATION

Bhubaneswar, dated the 19.07.24

No.FE-DIV-FLD-0044-2022-{10F-(Cons)-21/2022}-12926/FE&CC, In exercise of the powers conferred under Section-33 of the Odisha Forest Act, 1972 (Odisha Act 14 of 1972), the State Government do hereby declare that the following land situated in Village-Soroda under Pottangi Tahasil of Koraput District mutated and transferred in favour of Forest, Environment & Climate Change Department for raising Compensatory Afforestation thereon against the proposed diversion for non-forestry use of 22.697 ha of forest land of Jilling-Langlota Iron Ore Block within total Mining Lease area of 456.100 ha in Keonjhar District, Odisha vide 'in-principle' approval of Government of India, MoEF&CC (FC Division), New Delhi communicated in letter No.8-49/1998-FC (PT1) dt.09.02.2024 under Section-2 of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, the limits of which are specified below and the area of which is 22.6948 Ha (56.080 Ac) shall be Protected Forest with effect from the date of issue of the Notification and shall be known as "**Soroda Protected Forest**".

Forest Block:

Name of the Protected Forest	:	Soroda
Area in Ha	:	22.6948
Area in Acres	:	56.080
Name of the Village	:	Soroda
Name of the Police Station	:	Pottangi
Name of the Tahasil	:	Pottangi
Name of the Sub-Division	:	Koraput
Name of the District	:	Koraput

Land Schedule:

Village	Khata No.	Plot No.	Kisam	Area in Ac.	Boundary description			
					North	South	East	West
Soroda	71/2	593	Pathara bania	30.000	Plot No. 591 & 592	Plot No. 589 & 594	Plot No. 626/1349	Plot No. 590
		594	Pathara bania	22.500	Plot No. 593	Plot No. 588	Plot No. 625	Plot No. 589
		626/1349	Pahad	3.580	Plot No. 628	Plot No. 625	Plot No. 626	Plot No. 592 & 593
Total				22.6948 ha or 56.080 Ac				

By Order of the Governor

(Satyabrata Sahu)

Additional Chief Secretary to Government

By e-Mail: deputydirectorpp@rediffmail.com

Memo No. 12927/FE&CC, Date 19.07.24

Copy with soft copy forwarded to the Director of Printing, Stationery and Publication, Odisha, Cuttack for publication in an extra-ordinary issue of the Odisha Gazette and supply 10 copies of printed notification each to Forest, Environment & Climate Change Department/ Director of Land Records and Surveys, Odisha, Cuttack/ Collector, Koraput/ Divisional Forest Officer, Koraput Forest Division/ Tahasildar, Pottangi Tahasil, Dist.-Koraput.

2. The Notification is statutory and may be assigned SRO number.

19/7/2024

OSD-cum-Special Secretary to Government



Memo No. 12928/FE&CC, Date 19.07.24

Copy forwarded to the Assistant Inspector General of Forests, Govt. of India, Ministry of Environment, Forest and Climate Change, (F.C. Division), Indira Paryavaran Bhawan, Jor Bagh Road, Aliganj, New Delhi-110003/ Deputy Director General of Forests (Central), Govt. of India, MoEF&CG, Regional Office, A/3, Chandrasekharpur, Bhubaneswar-23 for information and necessary action.

dy 18/7/2024

OSD-cum-Special Secretary to Government

Memo No. 12929/FE&CC, Date 19.07.24

Copy forwarded to the Revenue & Disaster Management Department/ Steel & Mines Department/ Director, Environment-cum-Special Secretary to Government, FE&CC Department/ Member Secretary, SPCB, Odisha/ Director of Land Records and Surveys, Odisha, Cuttack/ RDC (SD) Berhampur/ Collector, Keonjhar/ Collector, Koraput/ Tahasildar, Pottangi Tahasil, Dist.-Koraput for information and necessary action.

dy 18/7/2024

OSD-cum-Special Secretary to Government

Memo No. 12930/FE&CC, Date 19.07.24

Copy forwarded to the Principal Chief Conservator of Forests & HoFF, Odisha/ Principal Chief Conservator of Forests (WL) & CWLW, Odisha/ Principal Chief Conservator of Forests (FD&NO, FC Act), O/o the PCCF & HoFF, Odisha w.r.t. his letter No.10301, dt.17.05.2024/ Regional Chief Conservator of Forests, Rourkela Circle/ Divisional Forest Officer, Keonjhar Forest Division/ Divisional Forest Officer, Koraput Forest Division for information and necessary action.

dy 18/7/2024

OSD-cum-Special Secretary to Government

Memo No. 12931/FE&CC, Date 19.07.24

Copy forwarded to the Head State Portal, IT Centre, Odisha Secretariat, Bhubaneswar/ OE (IT) Section, FE&CC Department w.r.t. this Department letter No.21646/F&E dtd.22.11.2016/ 5 spare copies for G.F. for information and necessary action.

dy 18/7/2024

OSD-cum-Special Secretary to Government

Memo No. 12932/FE&CC, Date 19.07.24

Copy forwarded to the General Manager (Geo), M/s Odisha Mining Corporation Limited, OMC House, Bhubaneswar for information and necessary action.

dy 18/7/2024

OSD-cum-Special Secretary to Government

ଖତିୟାନ

ମୌରା : ସୋରଡ଼ା

ତହସିଲ : ପଟାଙ୍ଗି

ଥାନା : ପଟାଙ୍ଗି

ତହସିଲ ନମ୍ବର :

ଥାନା ନମ୍ବର : 108

ଜିଲ୍ଲା : କୋରାପୁଟ

କମିସନର ନାମ ଓ ଖେଡ଼ାଟ ବା ଖତିୟାନର କ୍ରମିକ ନମ୍ବର	ଓଡ଼ିଶା ସରକାର ଖେଡ଼ାଟ ନମ୍ବର 01
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୧) ଖତିୟାନର କ୍ରମିକ ନଂ	71/1
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୨) ପ୍ରଜାର ନାମ, ପିତାର ନାମ, ଗାଡ଼ି ଓ ବାସସ୍ଥାନ	ଜଙ୍ଗଲ, ପରିବେଶ ଓ ଜଳବାୟୁ ପରିବର୍ତ୍ତନ ବିଭାଗ, ଓଡ଼ିଶା ସରକାର
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୩) ବସ୍ତୁ	ସରକାରୀ ମାହାଲ
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୪) ବେଢ଼	ଜଳକର	ଖଜଣା	ସେସ	ନିଷ୍କାର ସେସ ଓ ଅନ୍ୟାନ୍ୟ ସେସ ଯଦି କିଛି ଥାଏ	ମୋଟ	୫) କ୍ରମବର୍ଦ୍ଧନଶୀଳ ଖଜଣାର ବିବରଣୀ
		0.00	0.00	0.00	0.00	

୬) ବିଶେଷ ଅନୁସନ୍ଧାନ
ଯଦି କିଛି ଥାଏ


BLANK SPACE FOR STAMPING

ଅନ୍ତିମ ପ୍ରକାଶନ ତାରିଖ : 17/05/1961

ଖଜଣା ଧାର୍ଯ୍ୟ ତାରିଖ :



ଖାତିୟାବର କ୍ରମିକ ନଂ : 71/1		ମୌଜା : ସୋରଡ଼ା			ଜିଲ୍ଲା : ଗୋରାପୁଟ	
ପୁର ନମ୍ବର ଓ ବର୍ତ୍ତନ ନାମ	ଜିସମ ଓ ପ୍ରକାର ଖଜଣା	ଜିସମର ବିସ୍ତାରିତ ବିବରଣୀ ଓ ପୌନର୍ବି	ତଳବା			ମନ୍ତବ୍ୟ
			ଏକର	ଡ଼ି	ଫେକ୍ଟ	
୭	୮	୯	୧୦	୧୧	୧୨	
588/1343	ପଥର ବଣିଆ		12	590	5.0950	ବାସ୍ତବିକ ଖାତା ନଂ 92/2024 (Alienation Case No. 02/2024) ମୁଦ୍ରା ମୁଦାବର ପ୍ରକାଶନ ଖାତା ନଂ 71 କୁ ଅଣାଗଲା ।
595/1344	ପଥର ବଣିଆ		14	060	5.6899	
603/1345	ପଥର ବଣିଆ		7	000	2.8328	
626/1346	ପାହାଡ		5	690	2.3027	
628/1347	ପାହାଡ		12	030	4.8684	
630/1348	ପାହାଡ		35	660	14.4311	
628/1350	ପାହାଡ		0	600	0.2428	
7 ପୃଷ୍ଠ			87	630	35.4627	



TAHASILDAR
POTTASAH


 TAHSILDAR
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ବାସ୍ତବିକ ପୁର ନା ବିଜ୍ଞାନ କେନ୍ଦ୍ର, ଓଡ଼ିଶା

01/07/2024

Schedule I Form No. 52-A

ଖତିୟାନ

ପ୍ରାଥମିକ ସୂଚନା

ପ୍ରାଥମିକ ସୂଚନା

ପ୍ରାଥମିକ ସୂଚନା

ତହସିଲ : ପଟାଣି

ତହସିଲ ନମ୍ବର :

ଜିଲ୍ଲା : କୋରାପୁଟ

ଖତିୟାନ ନାମ

ଖତିୟାନ ନାମ

ଖତିୟାନ ନାମ

ଖତିୟାନ ସରକାର ଖୋସାଟ ନମ୍ବର (A)

ଖତିୟାନର କ୍ରମିକ ନଂ

71 2

ଖତିୟାନ ନାମ, ପିତାଙ୍କ

ନାମ, ଜାତି ଓ ବାସସ୍ଥାନ

ଜଙ୍ଗଲ, ପରିବେଶ ଓ ଜଳବାୟୁ ପରିବର୍ତ୍ତନ ବିଭାଗ, ଓଡ଼ିଶା ସରକାର

ସାବଧାନ

ସରକାରୀ ମାହାଲ

ଖତିୟାନ

ଜମିଦାର

ଖତିୟାନ

ସେବା

ବିଭାଗ ସେବା
ଓ ଅନ୍ୟାନ୍ୟ
ସେବା ଯଦି
କିଛି ଥାଏ

ମୋଟ

ଖ) କ୍ରମବର୍ଦ୍ଧନଶୀଳ ଖତିୟାନ ବିବରଣୀ

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ଖ) ବିବେଚନା ଅନୁସାରେ

ଯଦି କିଛି ଥାଏ

BLANK SPACE FOR STAMPING

ପ୍ରଥମ ପ୍ରକାଶନ ତାରିଖ : 17.05.1961

ଖତିୟାନ ଧାର୍ଯ୍ୟ ତାରିଖ :



ଖତିୟାନ ନାମ

04/04/2024

ଖରିଦାନର କ୍ରମିକ ନଂ : 71/2		ମୌଜା : ସୋରଡ଼ା			ଜିଲ୍ଲା : କୋରାପୁଟ	
ପୁର ନମ୍ବର ଓ ଚକର ନାମ	କିସମ ଓ ପୁରର ଖଜଣା	କିସମର ବିଭାଗିତ ବିବରଣୀ ଓ ଚୌହଦ୍	ରକସା			ମନ୍ତବ୍ୟ
			ଏକର	ଡ଼ି	ହେକ୍ଟର	
୭	୮	୯	୧୦		୧୧	୧୨
593	ପଥର ବଣିଆ		30	000	12.1406	ବାଖର ଖାତର କେଶ ନଂ 91/2024 (Alienation Case No. 03/2024) ହୁକୁମ ପୁରାବକ ପୁରାତନ ଖାତା ନଂ 71 ରୁ ଅଣାଗଲା ।
594	ପଥର ବଣିଆ		22	500	9.1054	
626/1349	ପାହାଡ଼		3	580	1.4488	
3 ପୁର			56	080	22.6948	

04/04/2024

ରାଷ୍ଟ୍ରୀୟ ସୂଚନା ବିଜ୍ଞାନ କେନ୍ଦ୍ର, ଓଡ଼ିଶା

TAHASILDAR
POTTANGI

PHOTOGRAPHS OF RCC PILLARS FIXED ON CA LAND BOUNDARY IN VILLAGE SORADA







**SCHEME FOR COMPENSATORY
AFFORESTATION**

OVER

**22.697 HA OF NON-FOREST GOVT. LAND
ALLOTTED IN VILLAGE**

SORODA

UNDER POTTANGI TAHASIL

OF KORAPUT DISTRICT

IN LIEU OF

JILLING - LANGALOTA MINING LEASE

ODISHA MINING CORPORATION LTD.

(A Govt. of Odisha Undertaking)


OMC HOUSE, POST BOX-34, BHUBANESWAR-1


(ON ONE TIME COST NORM BASIS)

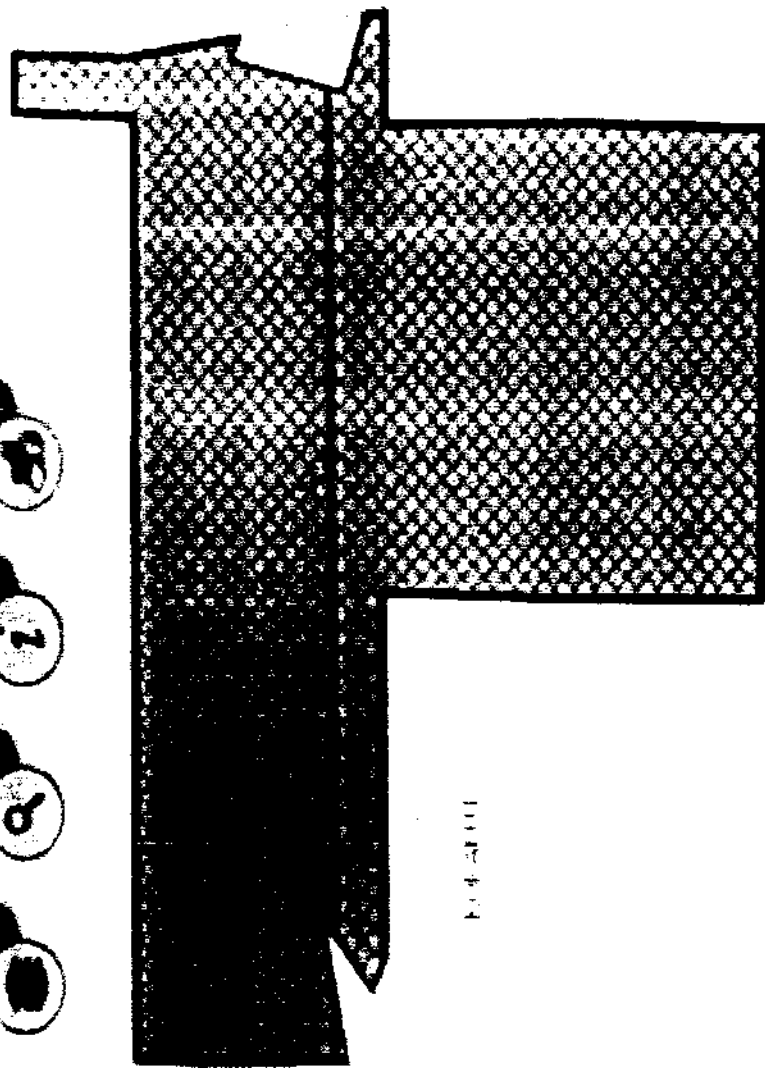
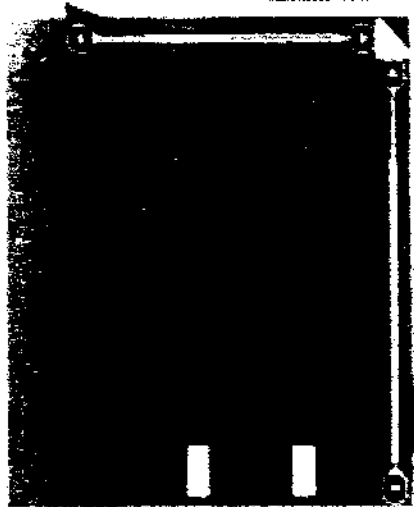
(Block Plantation @1000 plants/ha)

LAND SUITABILITY CERTIFICATE

This is to certify that 22.697 Ha. of Non forest Govt. land in Soroda Village of Semiliguda Forest Range in Koraput Forest Division identified for Compensatory Afforestation in lieu of 342.602 Ha. of forest land required for Forest Diversion in view of proposal for diversion of Jilling-Langalota Iron Ore Mines in Keonjhar District of M/s OMC Ltd., is suitable for Compensatory plantation. As per the site conditions and from management point of view the above said Non Forest Govt. land is suitable for **“AR with Block plantation @1000/ plants per ha”**. The Non-forest Govt. land is free from encroachments. No plantation has been carried out in this particular area previously as reported by the Range Officer, Semiliguda Range.


Asst. Conservator of Forests
Koraput Forest Division
K O R A P U T


Divisional Forest Officer,
Koraput Forest Division
Koraput Forest Division



104-2101

ORISSA

[Signature]
Divisional Forest Officer
P. 10000 B.

[Signature]
Divisional Forest Officer
P. 10000 B.

FSS ANALYSIS CERTIFICATE

Sl. No.	Name of the Range	Name of the Forest Block	Classification of identified land (in Ha.)							Area suitable for plantation (in Ha.)				Plantation Model (AR/ANR)	Remarks
			VDF	MDF	OF	NF	Scrub	Water	Total	OF	NF	Scrub	Total		
1	Semiliguda	Soroda Non Forest Govt. Land	0	0	0	0	22	0	22	0	0	22	22	AR Block @1000 plants per ha.	

Date:

Place: Koraput

Asst. Conservator of Forests
Koraput Forest Division
K O A P U T

Divisional Forest Officer,
Koraput Forest Division

Detailed scheme for Compensatory Afforestation over 22.697 ha allotted in village Sorada under Pottangi Tahasil of Koraput district in lieu of the forest area proposed for diversion pertaining to Jilling-Longalota Mining Lease of Odisha Mining Corporation Ltd. located in Keonjhar District, Odisha.

Jilling-Longalota Mining Lease of Odisha Mining Corporation Limited over 456.037 ha has been granted and executed by the Department of Steel & Mines, Govt. of Odisha vide letter No.338/SM dt 11.01.2021. The mine is in operation as per the vesting order by the S & M Department, Govt. of Odisha vide letter No.317/SM dt 11.01.2021. Out of other statutory clearances pertaining to Jilling-Langalota mines vested on OMC, the Forest Clearance accorded by MoEF & CC, Govt. of India vide No.8-49/98-FC (pt.) dt 08.10.2014 is over 342.602 ha of forest land.

Total forest land in the Jilling-Langalota Iron Ore Mines is 392.289 ha as per the authenticated land schedule provided by Tahasildar, Barbil. Stage-II Forest Clearance over 342.602 ha has already been granted by MOEF vide letter F. No. 8-49/98-FC (Pt) dt. 08.10.2014. Out of 392.289 ha, South Eastern Railway has acquired 26.99 ha of forest land. Therefore, OMC has submitted a proposal for diversion of 22.697 ha of forest land which requires equivalent extent of non-forest Govt. land for raising compensatory afforestation.

The site for Compensatory Afforestation was initially identified in village Peturu under Pottangi Tahasil in Semiliguda Range of Koraput Forest Division over 22.697 ha and has been jointly verified by the Tahasildar, Pottangi, Revenue Inspector, Sunki, Range Officer, Semiliguda and Forest Section Officer, Sunki. Collector, Koraput vide letter No. 2366/XXVI-349/2021 dated 06.08.2021 asked Tahasildar, Pottangi to process the proposal for allotment of non-forest Govt. land for raising compensatory afforestation in favour of Jilling-Langalota Iron Ore Mines of M/s Odisha Mining Corporation Ltd. The diversion proposal was recommended by the State Govt. to MoEF & CC and site inspection by the IRO, Bhubaneswar was also conducted to the CA land area. In the meantime, basing on the report by the Tahasildar, Pottangi regarding requirement of the already allotted land for CA for Bharatmala Project of Govt. of India, Collector, Koraput directed to provide alternate land parcel for CA.

Collector, Koraput on receiving the joint verification report by Forest and Revenue Officers allotted 22.697 ha of alternate land in village Soroda under Pottangi Tahasil vide letter No.1535/XXVI-94/2023 dt 21.04.2023 in Koraput district for raising compensatory afforestation. The copy of the allotment order is furnished at **Annexure-A**.

PCCF (Nodal) vide order No. 1109/9F-(Misc.)-387/2021 dt. 08.11.2021 has issued one-time Cost Norm for Compensatory Afforestation. As per the para-2 of the said guideline Compensatory Afforestation is to be prepared on "one time cost norm basis" by delinking the CA scheme to wage rate revision and material cost escalation for ease of doing business. It has been recommended in the JV report to carry out Block Plantation @1000 plants per hectare over 22.697

ha in village Soroda as per the joint verification conducted by Forest and Revenue officials. In this context, base cost norm for compensatory afforestation @1000 plants per hectare (Block Plantation) has been considered for preparation of scheme for plantation over 22.697 ha of non-forest Govt. land.

Soil & moisture conservation activities have been provided separately as per the approved cost Norm by PCCF, Odisha. Also, water provision aided by Diesel Pump set with Bore well (1 system for 5 ha plantation) has been provided.

1. Details of non-forest land:

District: Koraput; Tahasil: Pottangi

Village	Khata No.	Plot No.	Area of the plot in Acre	Area considered in Ac	Kisam	Type of plantation recommended
Soroda	71 (AAA)	593	30.00	30.00	Patharabania	Block Plantation with 1000 plants per hectare over 22.697 ha
		594	22.50	22.50	Patharabania	
		626 (p)	22.50	3.58	Pahada	
TOTAL:22.697 ha						

The copy of the Topo Sheet, Cadastral Maps and DGPS maps duly authenticated by Forest and Revenue officers are enclosed with following Plate Numbers:

Sl.No.	Description of the maps	Plate Nos.
1	Copy of the Topo Sheet No. E 44 K 15 on 1:50,000 scale showing CA land in village Soroda.	Plate No. I
2	Copy of the Cadastral Map on 1:3960 Scale over 22.697ha in village Soroda.	Plate No. II
3	Copy of the DGPS map on 1:3960 Scale over 22.697ha in village Soroda vetted by ORSAC.	Plate No. III

The jointly verified non-forest land in village Soroda by Forest and Revenue authorities is enclosed as **Annexure-B**. The DGPS co-ordinates of survey stations of CA land allotted in Soroda village is furnished as **Annexure-C**.

2. Description of Area

I. Whether the site selected for Compensatory Afforestation is a land bank or not: The identified non-forest area is under the control of Revenue Department and classified as 'Pahada & Pathrabania'. It is not placed in the land bank.

II. If the CA site is other than the land bank, reasons are given: During period of selection of this land there was no land available in the land bank.

III. In case of non-forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary: Ampavali RF 3.33 km from SE of CA land area of Soroda village.

IV. Soil type: Lateritic soil, stoney.

V. Topography :

a) Hilly/Undulating/Plain: The Compensatory Afforestation sites are hilly and undulating.

b) Slope: Steep/Medium/Gentle: The sites selected for Compensatory Afforestation have gentle to medium slope.

VI. Whether the area is bearing any root stock of vegetation: The sites selected for Compensatory Afforestation is not having any arboreal growth and covered mostly with weeds growth of *Lantana Eupatorium*, *Woodfordiafruticosa*, *Combretum decandrum*, no root stock of principal species is available.

VII. Suitability of the land for compensatory afforestation: The following are observed by the verification team:

"The non-forest Govt. land is free from encroachment and encumbrances and occurs in compact block/s and close proximity of forest area. Each land parcel is more than 4.0 ha and suitable for raising plantation Block Plantation (1000 plants/ha) with slope less than 30 degree and suitable for management and protection point of view. No plantation in this land has been carried out in any scheme previously as reported by the Range Officer Similguda Range. It is not covered under Section 4 (1) notification and nor enlisted in DLC report. The lands are not allotted to any agency previously and can be given for CA against this project of OMC.

3. Plantation Model: AR Block Plantation @1000 plants/ha in village Soroda over total CA land area of 22.697ha. has been selected with Maintenance of plantation for 10 years as per F. No.11-168/2009-FC dated 14.02.2012 of MoEF. Cost norm for Block Plantation @ 1000/ha is given at **Annexure-D**.

4. Technical details: Technical details of Compensatory Afforestation Scheme are as follows:

a) General Details :

Fencing: To protect the plantation from grazing and other biotic interference, it will be provided with chain link wire-mesh fencing over 2507.49 mtr. The length of chain link wire mesh fence needed in this project is furnished below:

Sl. No	Village	Length of outer periphery of the site in mtr	Length of enclosures if required to be fenced	Length of common fence of adjoining project which need not be fenced	Total length of fence in mtr (3+4-5)
(1)	(2)	(3)	(4)	(5)	(6)
1	Soroda	Patch-I	2507.49 mtr	Nil	2507.49 mtr

One time cost norm for chain link wire mesh fencing has been provided in **Annexure – E**.

b) Planting and post-planting (points of importance):

- Plantation will be taken up in time as per cost norm. While taking up plantation, the following points shall be taken up for consideration:
- Care to be taken to raise healthy 18 month old seedlings of minimum 60 cm height. 10% extra seedlings are to be raised for replacement of casualty.
- 45 cm cube pitting shall invariably be done during November-February i.e., before onset of monsoon. If possible the soil of upper portion and lower portion of pit should be placed separately in specific direction so that while planting the pits will be filled with top-soil first.
- Planting shall be done on the onset of monsoon to get full benefit of monsoon rain and planting should never be delayed.

- Basal dose of 50 grams of NPK and 5 grams of Chlorpyrifos dust per plant should be applied at the time of planting carefully by mixing with top-soil so that the roots of seedlings do not come in direct contact with fertilizer.
- In case of any mortality of planted seedlings, it should be replaced with good seedlings as soon as possible for better success rate.
- Complete weeding in proper time will be done. Strip weeding will not be permitted.
- Soil-working and application of 2nd dose fertilizer of 50 gms NPK per plant should be done in time.
- Since the area is provided with wire-mesh fence, watch & ward will be easier and the watchers may be engaged in weeding in problematic areas along with watch & ward.

c) Species:

Indigenous species are to be preferred in the plantation and considering adverse soil & moisture conditions we may go for hardy species so that, the plants can survive better. For success of plantation in interior tribal areas, plantation of fruit and NTFP species plays a great role since economic species have a little value for local people. Considering the topography, soil and moisture availability of the plantation area, 18 month old seedlings of the following species are proposed for the plantation.

Name of species	Common name	Remarks
<i>Azadirachta indica</i>	Neem	In lower areas will good soil depth
<i>Pongamia pinnata</i>	Karanja	In Foot hill areas & Nallahs.
<i>Emblica officinalis</i>	Amla	In Upper & lower areas.
<i>Terminalia chebula</i>	Harida	In lower areas with good soil depth
<i>Terminalia bellirica</i>	Babada	In lower areas with good soil depth
<i>Dalbergia latifolia</i>	Pahadi Sissoo	In lower areas with good soil depth
<i>Gmelina arborea</i>	Gambhani	In lower areas with good soil depth
<i>Dendrocalamus strictus</i>	Saha bamboo	In lower areas with good soil depth healthy seedlings from rhizomes may be planted
<i>Dalbergia sissoo</i>	Sissu	In lower areas with good soil depth
<i>Annona squamosa</i>	Sitaphal	In lower areas with good soil depth
<i>Tamarindus indica</i>	Tentuli	In lower areas with good soil depth
<i>Madhuca indica</i>	Mahul	Only two years old seedlings may be planted
<i>Syzygium cumini</i>	Jamun	At lower area reaches
<i>Zizyphus mauritania</i>	Ber	In rocky areas with low soil depth
<i>Terminalia arjuna</i>	Arjuna	In rocky areas with low soil depth
<i>Mangifera indica</i>	Mango	2 years old good quality seedlings will be planted.
<i>Artocarpus heterophyllus</i>	Jack fruit	In lower areas with good soil depth.

d) Soil and Moisture Conservation Works:

Since most of the areas are hilly and undulating, soil conservation measure structures like staggered trench, percolation pit, contour trench, graded earthen bund, LBCD, wire mesh, LBCD, Sub surface Dyke and Water Harvesting structures will be constructed. The cost norm of SMC measures is furnished as **Annexure-F**.

e) **Protection of the plantation:** Chain link wire-mesh fence will be provided all along the periphery of the plantation with RCC pillars. Few watchers will also be engaged for protection of the plantation.

f) **Watering provision of CA plantation:** Watering of the plantation will be carried out aided by Bore well fitted with diesel pump set (**Watering Model W-II**). The cost norm is furnished as **Annexure-G**.

6) **PEOPLES PARTICIPATION: (EPA ACTIVITIES)**

In order to involve the adjoining villages in the protection of plantation, meetings are to be conducted in the adjoining villages and efforts to be made to constitute VSS who will be assigned with the task of protection and management of the compensatory Afforestation with sharing benefit as per JFM Resolution 1993 for all plantation site. For the above purpose supporting activities like livelihood improvement/Socio economic development of the VSS members, strengthening of the local level institutions. Capacity Building and local level training and Entry Point Activities (EPA) is to be conducted on every VSS of the plantation site. For the success of the above and to create Assets for the communities bonafide requirement and to improve the socio economic status during the project implementation period will be meet from 5% funds of the CA cost is to be provided by the User Agency as per the direction of the Divisional Forest Officer, Koraput to meet the VSS's fulfillment.


7) **MONITORING & EVALUATION:** The Range Officers of project implementing Ranges will undertake field checks of the works undertaken at the identified sites and will be cross checked by the Asst. Conservator of Forests (ACFs) and Divisional Forest Officer, Koraput Forest Division. GPS co-ordinates along with other required informations of Compensatory Afforestation and other activities will be uploaded in the e-Green Watch Portal of NIC, MoEF and CD Govt. of India for the purpose of online monitoring. Annual progress of plantation involving growth of planted seedlings, survival percentage etc. will be monitored and recorded in the plantation journal by the field staffs of project implanting Ranges and reported to the Divisional Forest Officer for necessary action. The same will be reported to higher authorities for monitoring and evaluation of the activities every year.


8) **EXECUTING AGENCY**

The Plantation Scheme over the total CA Land area of 22.697 Ha. shall be executed by the Divisional Forest Officer, Koraput Forest Division.

9. **Total cost of the project:** The total cost of the project is **Rs. 1,66,58,439.00 (Rupees One Crore Sixty Six lakhs Fifty Eight Thousand Four Hundred and Thirty Nine)** Only which shall be payable by the User Agency as per the demand of the DFO, Koraput Forest Division.


Dy. Manager (Mining)
O.M.C. Ltd.
Kodimgamali Bauxite Mines


Asst. Conservator of Forests
Koraput Forest Division
K O S D P O E



Divisional Forest Officer
Koraput Forest Division
Divisional Forest Officer
Koraput Forest Division

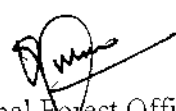
TOTAL COST OF THE COMPENSATORY AFFORESTATION SCHEME

Sl. No.	Item of Work	Total Estimated Cost in Rs.
Chain link wire mesh fencing		
1	Chain link weir mesh fence around plantation sites @ Rs. 485432/- per 250 Rmt/Ha. Rate per Rmt comes to Rs.485432/250 = Rs.1,941.72 So, cost of fencing over 2507.49Rmt x Rs.1,941.72 = Rs.48,68,843.48 (One time cost norm Model F-II for 2024-25)	Rs.48,68,843.48
Plantation		
2	Block Plantation @1000 plants per hectare proposed in village Soroda over 22.697 ha X Rs. 271716 = Rs.61,67,138.05 (One time cost norm for 2024-25)	Rs.61,67,138.05
Soil Moisture conservation activities		
3	Soil conservation measure structures like staggered trench, percolation pit, contour trench, graded earthen bund, LBCD, wire mesh, LBCD, Sub surface Dyke and Water Harvesting structures = 22.697 ha X Rs. 41,248/- = Rs.9,36,205.85 (One time cost norm for 2024-25)	Rs.9,36,205.85
4	Water provision to CA Plantation: Diesel Pump set with Bore well (1 pump set +Bore well for 5 Ha. Plantation), as per Matrix, Watering Model-W-II @ Rs. 553688/- for 5 Ha. Per ha. Cost comes to Rs.527321/5 = Rs.1, 10,737.60. Cost for 22.697 Ha. Comes to Rs.1, 10,737.60 x 22.697 = Rs.25,13,411.30 (5 Nos. of Bore Wells required for the site).	Rs.25,13,411.30
	Sub Total (1+2+3+4)=	Rs.1,44,85,598.68
	Or Say	Rs.1,44,85,599.00
5	Strengthening of the VSS of the adjoining CA sites with provision of EPA/Activities/Incentive, etc., for 10 year, i.e., 15% of the CA cost <div style="text-align: right;">Or Say</div>	Rs. 21,72,839.85 Rs.21,72,840.00
	G. Total :	Rs. 1,66,58,439.00

(Rupees One Crore Sixty Six lakhs Fifty Eight Thousand Four Hundred and Thirty Nine) Only.


Divisional Forest Officer,
Koraput Forest Division


Joint Forest Officer,
Koraput Forest Division

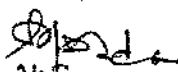

Divisional Forest Officer,
Koraput Forest Division

Financial Outlay for Compensatory Afforestation Scheme over an area of 22.697 ha of non-forest Govt. land identified in village Sorada under Pottangi Tahasil of Semiliguda Forest Range in Koraput District of Koraput Forest Division against diversion of forest land for Jilling-longlota Mining lease of M/s OMC Ltd as per approved One-time Cost Norm

Sl. No.	Description	Amount (Rs.)
1.	Cost of AR Plantation @ 1000 Plant per ha over 22.697 ha of non-forest land @ Rs.2,58,777/- per ha with 10 years maintenance	58,73,462.00
2.	Cost of Angle Iron & Chain Link Wire Mesh Fencing over 2507.49 RMT with 10 years maintenance @ Rs.4,62,316/- per ha per 250 RMT (As proposed by the DFO, Koraput Forest Division)	46,47,041.00
3.	Cost of SMC activities like staggered trenches, percolation pits, contour trench, graded earthen bund, LBCD, wire mesh LBCD, Sub-Surface Dyke and WHS as per the slope and site requirement @ Rs.39,284/- per ha over 22.697 ha with 5 years maintenance	8,91,629.00
4.	Watering by Diesel Pump Set fitted with borewell (1 Borewell for 5 ha Plantation) @ Rs.5,27,321/- for 5 No. of borewell (As proposed by the DFO, Koraput Forest Division)	26,36,605.00
Grand Total		1,40,48,737.00 or rounded off to 1,40,48,800.00

(Rupees One Crore Forty Lakhs Forty Eight Thousand Eight Hundred) only

Approved


24/7/24

Principal Chief Conservator of Forests
Forest Diversion & Nodal Officer, FC Act

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

By Post / Spl. Messenger

COLLECTORATE, KORAPUT

(REVENUE SECTION)

No. 1535 /XXVI-94/2023

Dated: 21.04.2023

To

The Divisional Forest Officer,
Koraput.

Sub: Allotment of non - forest Govt. land in mouza - Soroda under Pottangi Tahasil for raising Compensatory Afforestation over area of Ha.35.461 and Ha.22.697 for diversion pertaining to Jilling - Longalotta Iron & Manganese Ore Mines of OMC located in Keonjhar District of Odisha.

Ref: Your Office Letter No-2074, dated: 18.04.2023

Madam,

With reference to your letter on the aforementioned subject, I am enclosing herewith the Joint Verification Report of the area identified for allotment of non-forest Govt. land in Mouza-Soroda under Pottangi Tahasil for raising Compensatory Afforestation over area of Ha.35.461 and Ha.22.697 for diversion pertaining to Jilling - Longalotta Iron & Manganese Ore Mines of OMC located in Keonjhar District of Odisha.

Hence, you are requested to file necessary requisition in Form No-I A before the Tahasildar, Pottangi for processing alienation proposal for sanction of alienation of Govt. land in favour of Forest Department, Govt. of Odisha at an early date. Further, you are also requested to prepare necessary Compensatory Afforestation Scheme.


Collector, Koraput.

Memo No- 1534.

Dated: 21.04.2023

Copy along with copy of Joint Verification Report and Map forwarded to the Tahasildar, Pottangi for information and necessary action. He is requested to process the alienation proposal in favour of Forest and Environment Department, Govt. of Odisha on obtaining the requisition from the Divisional Forest Officer, Koraput forthwith.

Copy forwarded to the Sub-Collector, Koraput for information and necessary action.


Additional District Magistrate,
Koraput

Through E-mail



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

E-mail:- nodal.pccfho@odisha.gov.in / nodal.pccfodisha@gmail.com

Memo No. 4791 /9F(MG)-70 /2021

Dated, Bhubaneswar the 27th February, 2024

To

The Divisional Forest Officer
Keonjhar Forest Division

Sub: Proposal for seeking prior approval of the Central Government under Section 2(1)(ii) of the Van (Sarankshan Evam Samvardhan) Adhiniyam, 1980 in favour of M/s Odisha Mining Corporation Ltd. for non-forestry use of 22.697 ha forest land of Jilling-Langlota Iron Ore Block within the total Mining Lease area of 456.100 ha in Keonjhar District, Odisha - Stage-I approval regarding.

Ref:- (i) Letter No. 8-49/1998-FC(PT1) dated 09.02.2024 of Asst. Inspector General of Forests GoI, MoEF & CC, (FC Division), New Delhi.

(ii) Memo No. 2976/FE&CC dt. 23.02.2024 of the OSD-cum-Special Secretary to Govt. FE&CC Deptt., Odisha, Bhubaneswar.

Enclosed, please find herewith a copy of Memo No. 2976/FE&CC dt. 23.02.2024 of the OSD-cum-Special Secretary to Govt. FE&CC Deptt., Odisha, Bhubaneswar alongwith a copy of GoI, MoEF & CC (FC Division), New Delhi letter No. 8-49/1998-FC(PT1) dated 09.02.2024 of Assistant Inspector General of Forests which is self-explanatory.

The financial outlay for Compensatory Afforestation Scheme over an area of 22.697 ha Non-Forest Govt. land identified in village Sorada under Pottangi Tahasil of Similiguda Forest Range in Koraput District of Koraput Forest Division pertaining to the above project has been approved by PCCF (FD & Nodal Officer, FC Act) as per approved One-time cost norm for Rs. 1,40,48,800.00 (Rupees One crore forty lakhs forty eight thousand and eight hundred) only is enclosed.

In this context, I am directed to request you to furnish the compliance to the conditions imposed in the above said letter through RCCF, Rourkela Circle for onward transmission to the GoI, MoEF & CC (FC Division), New Delhi and also raise demand on the user agency for payment of compensatory levies through web portal of MoEF & CC and submit the deposit particulars of the amount paid in prescribed CAMPA format alongwith the Stage-I compliance.

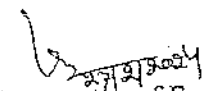
Encl-As above

Deputy Conservator of Forests (Nodal)

Page 1 of 2

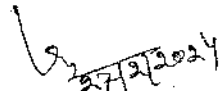
Memo No. 4792 Dt 27-02-2024

Copy alongwith its enclosures forwarded to the PCCF (WL) & CWLW, Odisha, Prkruti Bhawan, Plot No. 1459, Saheed Nagar, Bhubaneswar-751007 for favour of kind information & necessary action with reference to Memo No. 2975/ FE&CC dt.23.02.2024 of the OSD-cum-Special Secretary to Govt. FE&CC Deptt., Odisha, Bhubaneswar.


Deputy Conservator of Forests (Nodal)

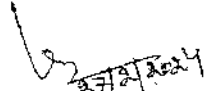
Memo No. 4793 Dt 27-02-2024

Copy alongwith its enclosures forwarded to the RCCF, Rourkela Circle for information & necessary action with reference to Memo No. 2976/ FE&CC dt.23.02.2024 of the OSD-cum-Special Secretary to Govt. FE&CC Deptt., Odisha, Bhubaneswar.


Deputy (Conservator of Forests (Nodal)

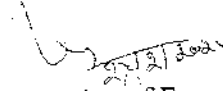
Memo No. 4794 Dt 27-02-2024

Copy alongwith its enclosures forwarded to the RCCF, Koraput Circle for information & necessary action.


Deputy (Conservator of Forests (Nodal)

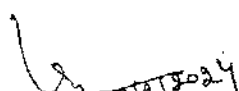
Memo No. 4795 Dt 27-02-2024

Copy alongwith its enclosures forwarded to the DFO, Koraput Division for information & necessary action with reference to Memo No. 2976/ FE&CC dt.23.02.2024 of the OSD-cum-Special Secretary to Govt. FE&CC Deptt., Odisha, Bhubaneswar.


Deputy Conservator of Forests (Nodal)

Memo No. 4796 Dt 27-02-2024

Copy alongwith its enclosures forwarded to General Manager (Geo), M/s OMC Ltd. OMC House, Bhubaneswar for information and necessary with reference to Memo No. 2978/ FE&CC dt.23.02.2024 of the OSD-cum-Special Secretary to Govt. FE&CC Deptt., Odisha, Bhubaneswar


Deputy Conservator of Forests (Nodal)

Memo No- 1537

Dated: 21.04.2023

Copy to the Managing Director, OMC, Bhubaneswar for information and necessary action.


Additional District Magistrate,
Koraput

Memo No- 1538

Dated: 21.04.2023

Copy to the Regional Manager, OMC, Rayagada, District-Rayagada for information and necessary action.


Additional District Magistrate,
Koraput

Memo No- 1539

Dated: 21.04.2023

Copy to the DFO, Keonjhar for information and necessary action.


Additional District Magistrate,
Koraput

ANNEXURE-I

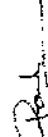
JOINT VERIFICATION REPORT OF NON-FOREST GOVERNMENT LAND IN VILLAGE SORADA UNDER POTTANGI TAHASIL OF KORAPUT DISTRICT FOR RAISING COMPENSATORY AFFORESTATION IN LIEU OF THE FOREST LAND REQUIRED FOR JILING-LONGALOTTA IRON & MANGANESE ORE MINING LEASE OF M/S ODISHA MINING CORPORATION LIMITED LOCATED IN THE DISTRICT OF KEONJHAR, ODISHA.


Certified that on joint verification of non-forest Government land in village Soroda under Pottangi Tahasil of Koraput district, it is found that the scheduled wise land mentioned in the table below is suitable for Block plantation @ 1000 plants/ha.


Tahasil	Village	Khata No.	Plot No.	Total area of the plot (Acres)	Area considered in (Acres)	Khasam	Boundary Description				Type of plantation recommended
							North	South	East	West	
Pottangi	Soroda	71 (Abada Ajooya Anabadi)	593	30.00	30.00	Patharabania	591,592	589,594	626	590	Block
			594	22.50	22.50	Patharabania	593	588	625	589	Plantation, 1000 plants per/ha.
			626 (p)	22.50	3.58	Pahada	628	625	626	592,593	
TOTAL				\$6.08 Acre or 22.697 ha							

Besides, the following are also certified for suitability of the area for Compensatory Afforestation:

1. Certified that the above non-forest Govt. land is in compact patches and in continuity fit for compensatory plantation.
2. Certified that these lands are not coming under reserve category like Guchar, Smasana
3. These areas have adequate soil depth to sustain plantation and area manageable from silvicultural point of view.
4. Certified that the Government land are found suitable for plantation
5. Certified that these lands are free from encroachment and encumbrances.
6. Certified that the above land is not covered under Section 4 (1) notification and do not come under any forest block
7. Certified that the above land is not coming under DUC land and forest land classification.
8. Certified that the above land is not allotted to any agency previously.
9. These lands can be given to Odisha Mining Corporation Limited for using the same towards Compensatory Afforestation
10. RoR is as per the land record available as on 25.10.1980.


 Range Officer,
 Semiliguda Range


 Forest Section Officer,
 Pottangi
 Sunkil Section


 Tahasildar,
 Pottangi
 Tahasil of
 Koraput

**DGPS CO-ORDINATES OF CA LAND AREA ALLOTTED IN VILLAGE PAMI, MADI AND
SORODA AGAINST JILLING-LANGALOTA IRON ORE MINING LEASE OF
M/s ODISHA MINING CORPORATION LIMITED**

Points		Geographic Co-ordinates		Bearing		Distance in Meter
		Longitude	Latitude	Forward	Backward	
From	To					
1	2	82°56'20.84"	18°25'23.04"	89°23'49"	269°23'49"	603.28
2	3	82°56'41.39"	18°25'23.04"	359°33'09"	179°33'09"	101.60
3	4	82°56'41.40"	18°25'26.35"	89°10'47"	269°10'47"	39.83
4	5	82°56'42.76"	18°25'26.35"	179°17'42"	359°17'42"	303.10
5	6	82°56'42.78"	18°25'16.49"	270°07'30"	90°07'30"	40.38
6	7	82°56'41.40"	18°25'16.51"	179°15'28"	359°15'28"	306.41
7	8	82°56'41.42"	18°25'06.54"	269°33'00"	89°33'00"	303.22
8	9	82°56'31.09"	18°25'06.57"	359°15'08"	179°15'08"	304.03
9	10	82°56'31.07"	18°25'16.46"	269°14'53"	89°14'53"	302.44
10	1	82°56'20.76"	18°25'16.44"	0°00'00"	180°00'00"	203.20
PERIMETER; 2507.49 mtr& AREA ; 22.697 Ha						

ANNEXURE-D

Core Plantation Base Cost Norm for Compensatory Afforestation @1000 Seedlings/ Ha with 10 Year Maintenance						
Sl. No.	Items of work	Preferable Period of Execution	No. of Mandays	Labour Cost (in ₹)	Material Cost (in ₹)	Total Cost (in ₹)
1	2	3	4	5	6	7
0th Year (Advance Work) Pre-Planting Operation						
1.	Survey, demarcation and Pillar posting	Nov/Dec	2	622	0	622
2.	Preparation of Treatment Map (Digital Map)	Nov/Dec	1	311	100	411
3.	Site preparation (Cleaning & removal of debris)	Nov/Dec	12	3732	0	3732
4.	Creation of 4.00 mt wide inspection Path	Feb/Mar	1	311	0	311
5.	Alignment and stacking of pits	Feb/Mar	1	311	0	311
6.	Digging of pits (45 cm x 45 cm x 45 cm) in hard and gravelly soil	Feb/Mar	40	12440	0	12440
7.	Construction of Temporary Labour Shed, Drinking water facility and First-Aid etc.	Jan/Mar	0	0	3500	3500
Total			57	17727	3600	21327
1st Year/ Planting Year						
1.	Refilling of pits by altering the dugout soil of the pits, application of Organic compounds/ CDM/ FYM & mixing the same properly.	Jun/Jul	7.5	2332.50	5000	7332.50
2.	Transportation of 18 months old polythene bag seedlings in hired truck/ tractor from the permanent/ Mega nursery to planting site including loading & unloading. (Average lead of 10 Rkm) & Stacking the seedling @ Rs. 6/- per Seedling. (1100 nos.)	Jul/Aug	0	0	6600	6600
3.	Watering polypot seedlings at planting site	Jul/Aug	2	622	0	622
4.	Conveyance of polypot seedlings on head load from the stacking site to individual dugout pits within the planting site, applying insecticide, fertilizers & planting after scooping the soil with other applied materials & pressing the soil perfectly around the planted seedlings.	Jul/Aug	22.5	6997.50	0	6997.50
5.	Cost of Fertilizer & Insecticide (a) NPK/ Bio-fertilizer @ 50 gms/ plant as basal dose = 50 kg @ Rs. 30/- per kg = Rs. 1500.00 (b) Urea/ Vermicompost/ Mo Khata/ any other fertilizer in two subsequent doses @ Rs. 750.00 (c) Insecticide/ Bio-pesticide @ 5 gms/ plant = 5 kg @ Rs. 150/- per kg = Rs. 750.00	Jul/Aug	0	0	3000	3000
6.	Casualty Replacement @ 10% (100 nos.)	Jul/Aug	2.5	777.5	0	777.5
7.	1 st weeding & Manuring	Aug/Sept	12	3732	0	3732
8.	2 nd Weeding, Soil working (1mt. diameter around the plants) and Manuring.	Oct/Nov	15	4665	0	4665
9.	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path.	Feb/Mar	3	933	0	933
10.	Watch & Ward including watering as per requirement	Aug-Mar	12	3732	0	3732
TOTAL			76.50	23791.50	14600.00	38391.50
2nd Year Maintenance						
1.	Transportation of 100 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs. 6/- per seedlings	Jul	0	0	600	600
2.	Casualty replacement- 10%	Jul	2.5	777.5	0	777.5
3.	Cost of Fertilizer & Insecticide A) Cost of Insecticide/ Bio-pesticide @ 5 gms/ plant = 0.5 Kg @ Rs. 150/- per kg = Rs. 75/- B) Urea/ NPK/ Bio-fertilizer/ Vermicompost/ Mo Khata/ any other fertilizer @ Rs. 2800/-	Jul/Aug	0	0	2875	2875

4.	Weeding (Complete weeding), Manuring & Soil working (1mt. diameter around the plants)	Sept/Oct	15	4665	0	4665
5.	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
6.	Watch & Ward including watering as per requirement	Apr/Mar	18	5598	0	5598
7.	Maintenance of Temporary Labour Shed, Drinking water facility and First Aid etc.	Apr/Mar		0	1000	1000
TOTAL			38.5	11973.5	4475	16448.5
3rd Year Maintenance						
1.	Cost of Fertilizer (Urea/ NPK/ Bio-fertilizer/ Vermicompost/ Mo Khata/ any other fertilizer)	July/Aug	0	0	2800	2800
2.	Weeding (Complete weeding), Manuring & Soil working (1mt. diameter around the plants)	Sept/Oct	15	4665	0	4665
3.	Fire line tracing (2 m wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
4.	Watch & Ward including watering as per requirement	Apr/Mar	18	5598	0	5598
5.	Maintenance of Temporary Labour Shed, Drinking water facility and First Aid etc.	Apr/Mar	0	0	1000	1000
Total			36.0	11196	3800	14996
4th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
2	Watch & Ward including & maintenance of vegetative fencing.	Apr/Mar	18	5598	0	5598
Total			21	6531	0	6531
5th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
Total			21	6531	0	6531
6th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933.0
2.	Pruning of branches, Singling out of multiple shoots	Jan/Mar	3	933.00	0	933.0
3.	Watch & Ward	Apr/Mar	18	5598.00	0	5598.0
Total			24	7464	0	7464.0
7th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward	Apr/Mar	18	5598.00	0	5598
Total			21	6531	0	6531
8th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward	Apr/Mar	18	5598.00	0	5598
Total			21	6531	0	6531
9th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward	Apr-Mar	18	5598.00	0	5598
Total			21	6531	0	6531
10th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933	0	933
2.	Watch & Ward	Apr/Mar	18	5598.00	0	5598
Total			21	6531	0	6531

Year wise Abstract of Cost Norm
(Showing seedling cost separately)

Sl. No	Year	No. of Mandays	Labour Cost (in ₹)	Material Cost (in ₹)	Monitoring Evaluation, Learning, Documentation and Other Contingency (5%) of (4+5)	Cost of Seedlings @ ₹ 50.31 per seedlings	TOTAL COST (in ₹)
1.	0 th Year	57.0	17727.0	3600.0	973.0	0.00	22300.00
2.	1 st Year	76.5	23791.5	14600.0	1918.50	55341.00	95651.00
3.	2 nd Year	38.5	11973.5	4475.0	821.50	5031.00	22301.00
4.	3 rd Year	36.0	11196.0	3800.0	749.00	0.00	15745.00
5.	4 th Year	21.0	6531.0	0.0	326.00	0.00	6857.00
6.	5 th Year	21.0	6531.0	0.0	326.00	0.00	6857.00
7.	6 th Year	24.0	7464.0	0.0	373.00	0.00	7837.00
8.	7 th Year	21.0	6531.0	0.0	326.00	0.00	6857.00
9.	8 th Year	21.0	6531.0	0.0	326.00	0.00	6857.00
10.	9 th Year	21.0	6531.0	0.0	326.00	0.00	6857.00
11.	10 th Year	21.0	6531.0	0.0	326.00	0.00	6857.00
Total		358.0	111338.0	26475.0	6791.0	60372.0	204976.0

Matrix for Core Plantation for Compensatory Afforestation @ 1000 Seedlings/Ha with 10 year maintenance

Sl. No.	Comment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost (10 Yrs)
Base Norm		22300	95651	22301	15745	6857	6857	7837	6857	6857	6857	6857											
1	2021-22	22300	100434	24585	18226	8335	8751	10502	9648	10131	10637	11169											234718
2	2022-23		23415	105456	25814	19137	8752	9189	11027	10130	10638	11169	11727										246454
3	2023-24			24586	110729	27105	20094	9190	9648	11578	10637	11170	11727	12313									258777
4	2024-25				25815	116265	28460	21099	9650	10130	12157	11169	11729	12313	12929								271716
5	2025-26					27106	132078	29883	22154	10133	10637	12765	11727	12315	12929	13575							285302
6	2026-27						28461	128182	31377	23262	10640	11169	13403	12313	12931	13575	14254						299567
7	2027-28							29884	134591	32946	24425	11172	11727	14073	12929	13578	14254	14967					314546
8	2028-29								31378	141321	34593	25646	11731	12313	14777	13575	14257	14967	15715				330273
9	2029-30									32947	148387	36323	26928	12318	12929	15516	14254	14970	15715	16501			346788
10	2030-31										34594	155806	38139	28274	12934	13575	16292	14967	15719	16501	17326		364127

Figures in rupees

ANNEXURE- E

Fencing for Compensatory Plantation raised outside the Forest Areas using Angle Iron & Chain Link wire mesh(250 Rmt/Ha.)						
Sl. No.	Item of work	Preferable Period of Execution	Man days	Wages	Material cost	Total Cost (Rs.per Ha.)
0 th Year (PPO)						
1	Earth work (Excavation of hole) in Hard soil at a distance 3 mt. 0.40m x 0.40m=0.064 x 84=5.376 cum @ Rs.140/ cum=Rs.753.		2.42	752.62	0.0	752.6
2	Cement concrete (1:4:8) using 40 mm BHC metal 84 X 0.40m X 0.10m = 1.344@3755.94/cum		0	0	5,047.4	5,047.4
3	Angle Iron pole of size 50mm X 50 mm X 6mm of height 2.40 mt. 84 x 2.40=201.60Sqmt.@4.50/kg/Sqmt.= 907.20 kg@ 69.50 per kg				63,050.0	63,050.0
4	Cement Concrete (1:2:4) for fixing the iron angle pole using 12mm BHG Chips. 84 X 0.40m X0.40m X 0.30m = 4.032 cum @5486.77/cum				22,123.0	22,123.0
5	Cost of Chain link mess using 4mm Dia GI wire having gap size 50mm X 50mm250 Rmt X 2.10mt=525Sq.mt2331/Sqmt=Rs.1,73,775				1,73,775.0	1,73,775.0
6	Double coat painting of Iron angle pole over a coat of primer using good quality enamel paint 84 x 2.10 x 0.20 = 35.28sqmt. @ Rs.108.80/Sqmt				3,838.0	3,838.0
7	Painting of GI chain link mess. 250 x 2.10 x 2 = 1050/10 = 105 Sqmt.@108.80Sqmt.				11,424.0	11,424.0
8	Transportation of Chain link mess,Iron angle,Straightening & tying of chain link mess etc. @ 2% of the total cost.				5,600.0	5,600.0
	Total		2.42	752.62	2,84,857.4	2,85,610.0
Rate per running meter Rs 2,85,610/250 = Rs.1142/Rmt						
1st Year Maintenance						
1	No Maintenance is required	Sept / Oct	0	0	0	0
2nd Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
3rd Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
4th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
5th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
6th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
7th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
8th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
9th Year Maintenance						

1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
10th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000

ABSTRACT					
SL.No	Year	No. person days	Labour cost @ Rs.311/- per days	Material Cost	Total cost (Rs.)
1	0 th year	2.42	752.6	284857.4	285610.0
2	1 st year	0.0	0.0	0.0	0.0
3	2 nd year	0.0	0.0	11000.0	11000.0
4	3 rd year	0.0	0.0	11000.0	11000.0
5	4 th year	0.0	0.0	11000.0	11000.0
6	5 th year	0.0	0.0	11000.0	11000.0
7	6 th year	0.0	0.0	11000.0	11000.0
8	7 th year	0.0	0.0	11000.0	11000.0
9	8 th year	0.0	0.0	11000.0	11000.0
10	9 th year	0.0	0.0	11000.0	11000.0
11	10 th year	0.0	0.0	11000.0	11000.0
	Total	2.42	752.62	383857.4	3,84,610.0

Matrix for Fencing Model-F-II (Iron angle with Chain link weir mesh)

In Rupees

Sl. No.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost
	Base Norm	285610	0	11000	11000	11000	11000	11000	11000	11000	11000	11000											419331
1	2021-22	285610	0	12126	12734	13370	14039	14740	15478	16252	17064	17918											440299
2	2022-23		299891	0	12732	13371	14039	14741	15477	16252	17065	17917	18814										462316
3	2023-24			314886	0	13369	14040	14741	15478	16251	17065	17918	18813	19755									485432
4	2024-25				330630	0	14037	14742	15478	16252	17064	17918	18814	19754	20743								509705
5	2025-26					347162	0	14739	15479	16252	17065	17917	18814	19755	20742	21780							535191
6	2026-27						364520	0	15476	16253	17065	17918	18813	19755	20743	21779	22869						561951
7	2027-28							382746	0	16250	17068	17918	18814	19754	20743	21780	22868	24012					590049
8	2028-29								401883	0	17063	17919	18814	19755	20742	21780	22869	24011	25213				619552
9	2029-30									421977	0	17916	18815	19755	20743	21779	22869	24012	25212	26474			650531
10	2030-31										443076	0	18812	19756	20743	21780	22868	24012	25213	26473	27798		650531

ANNEXURE- F

SMC Works Model-C			
Cost Norms for creation of Compensatory Afforestation with stabilization of Soil & Conservation of Moisture (1000 Plants/Ha).			
Sl. No.	Items of work	Preferable Period of Execution	Total Cost
0th Year (Pre-Planting Operation)			
1	Nil		0
1st Year			
2	Soil Conservation measure structures like Staggered Trench, Percolation pit, Contour trench, Graded earthen bund, LBCD, Wire mesh LBCD, Sub surface Dyke & WHS as per the slope & site requirement on LS	Apr/Sept	20.215
2nd Year			
3	Maintenance of SMC structures @ 15 % of initial year cost	Apr/Jul	3.032
3rd Year			
4	Maintenance of SMC structures @ 15 % of initial year cost	Apr/Jul	3.032
4th Year			
5	Maintenance of SMC structures @ 15 % of initial year cost	Apr/Jul	3.032
4th Year			
6	Maintenance of SMC structures @ 15 % of initial year cost	Apr/Jul	3.032
Total			32,343.0

ABSTRACT

Sl.No.	Year	No. person days	Labour Cost @ Rs. 352/- per day	Material Cost	TOTAL COST (Rs) Considered in the Matrix
1.	0 th Year	0.0	0.0	0.0	0.0
2.	1 st Year	0.0	0.0	20,215.0	20,215.00
3.	2 nd Year	0.0	0.0	3,032.00	3,032.00
4.	3 rd Year	0.0	0.0	3,032.00	3,032.00
5.	4 th Year	0.0	0.0	3,032.00	3,032.00
6.	5 th Year	0.0	0.0	3,032.00	3,032.00
Total		0.00	0.00	32,343.0	32,343.0

Matrix for (SMC) works

In Rupees

Sl. No.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
	Base Norm	0	20215	3032	3032	3032	3032											35633
1	2021-22	0	21226	3342	3510	2685	3870											37415
2	2022-23		0	22287	3509	3686	3869	4064										39284
3	2023-24			0	23401	3684	3870	4062	4267									41248
4	2024-25				0	34571	3868	4064	4265	4480								43310
5	2025-26					0	25800	4061	4267	4478	4704							45475
6	2026-27						0	27090	4264	4480	4702	4939						47749
7	2027-28							0	28445	4477	4704	4937	5186					50136
8	2028-29								0	29867	4701	4939	5184	5445				52642
9	2029-30									0	31360	4636	5186	5443	5717			55274
10	2030-31										0	32928	5183	5445	5715	6003		

Annexure-G

Watering Model-W-II		
Watering Provisions to CA Plantation		
Diesel Pump set with Bore well (1 pump set +Bore well for 5 Ha Plantation), Wage rate @ Rs. 345/-		
Year of Installation (0th Year)		
1	Cost of Borewell	1,50,000
2	Cost of Diesel pump set 5HP	60,000
3	Diesel pump set & accessories like commander, Pipes, etc.	30,000
4	Water Storage Tanks/ Flexible pipes	15,000
		2,55,000
Cost of Water per Plant (2,55,000/5000) = Rs. 51/- Cost of Water per Ha. = Rs.51,000/-		51,000
1st Year Watering		
1	Recurring expenditure i.e., Diesel, Mobil, Engine oil, etc, for pumping Water-21 x 1000=	21,000
2	Watering 1000 Plants (Nov- Mar) @ 200 plants/ MD with 7 days rotation 20 MD x 5 months = 100 MD x 345 =	34,500
Total		55,500
2nd Year Watering		
1	Recurring expenditure i.e., Diesel, Mobil, Engine oil, etc, for pumping Water-21 x 1000=	21,000
	Maintenance Diesel Pump set etc. @ 15% of the installation cost.	7,650
2	Watering 1000 Plants (April- June & Nov- Mar - 8 months) @ 200 plants/MD with 7 days 20 MD x8 months =160 MDx 345=	55,200
Total		83,850
3rd Year Watering		
1	Recurring expenditure i.e., Diesel, Mobil, Engine oil, etc, for pumping Water-21 x 1000=	21,000
	Maintenance Diesel Pump set etc. @ 15% of the installation cost.	7,650
2	Watering 1000 Plants (April- June & Nov- Mar - 8 months) @ 200 plants/MD with 7 days rotation 20 MD x8 months =160 MDx 345=	55,200
Total		83,850

4th Year Watering		
1	Recurring expenditure i.e., Diesel, Mobil, Engine oil, etc, for pumping Water-21 x 1000=	21,000
	Maintenance Diesel Pump set etc. @ 15% of the installation cost.	7,650
2	Watering 1000 Plants (April- June & Nov- Mar - 8 months) @ 200 plants/MD with 7 days rotation 20 MD x8 months =160 MDx 345=	55,200
Total		83,850
5th Year Watering		
1	Recurring expenditure i.e., Diesel, Mobil, Engine oil, etc, for pumping Water-21 x 1000=	21,000
	Maintenance Diesel Pump set etc. @ 15% of the installation cost.	7,650
2	Watering 1000 Plants (April- June & Nov- Mar - 8 months) @ 200 plants/MD with 7 days rotation 20 MD x8 months =160 MDx 345=	55,200
Total		83,850

Abstract					
Sl. No.	Year	No. Person days	Labour cost @ Rs. 345/- per day	Material Cost (In Rs.)	Total cost (Rs.)
1	0th year	0	0	51000	51000
2	1st Year	100	34500	21000	55500
3	2nd year	160	55200	28650	83850
4	3rd year	160	55200	28650	83850
5	4th year	160	55200	28650	83850
6	5th year	160	55200	28650	83850
	Total	740	255300	186600	441900

Matrix for Watering WII Bore Well fitted with Diesel Pumps&t

In Rupees

Sl. No.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
Base Norm		51000	52100	78410	78410	78410	78410											
1	2021-22	51000	54705	86439	90771	95307	100072											478294
2	2022-23		53550	57440	90761	95310	100072	105076										502209
3	2023-24			56228	60312	95299	100076	105076	110330									527321
4	2024-25				59039	63328	100064	105080	110330	115847								553688
5	2025-26					61991	66494	105067	110334	115847	121639							581372
6	2026-27						65091	69819	110320	115851	121639	127721						610441
7	2027-28							68346	73310	115836	121644	127721	134107					640964
8	2028-29								71763	76976	121628	127726	134107	140812				673012
9	2029-30									75351	80825	127709	134112	140812	147853			706662
10	2030-31										79119	84866	134094	140818	147853	155246		741996

By Post / Spl. Messenger

COLLECTORATE, KORAPUT

(REVENUE SECTION)

No. 1535 /XXVI-94/2023

Dated: 21.04.2023

To

The Divisional Forest Officer,
Koraput.

Sub: Allotment of non - forest Govt. land in mouza - Soroda under Pottangi Tahasil for raising Compensatory Afforestation over area of Ha.35.461 and Ha.22.697 for diversion pertaining to Jilling - Longalotta Iron & Manganese Ore Mines of OMC located in Keonjhar District of Odisha.

Ref: Your Office Letter No-2074, dated: 18.04.2023

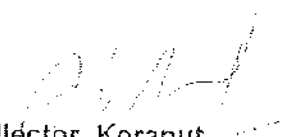
Madam,

With reference to your letter on the aforementioned subject, I am enclosing herewith the Joint Verification Report of the area identified for allotment of non-forest Govt. land in Mouza-Soroda under Pottangi Tahasil for raising Compensatory Afforestation over area of Ha.35.461 and Ha.22.697 for diversion pertaining to Jilling - Longalotta Iron & Manganese Ore Mines of OMC located in Keonjhar District of Odisha

Hence, you are requested to file necessary requisition in Form No-I A before the Tahasildar, Pottangi for processing alienation proposal for sanction of alienation of Govt. land in favour of Forest Department, Govt. of Odisha at an early date. Further, you are also requested to prepare necessary Compensatory Afforestation Scheme.

Encl.. As above

Yours faithfully,


Collector, Koraput

Memo No- 1536

Dated: 21.04.2023

Copy along with copy of Joint Verification Report and Map forwarded to the Tahasildar, Pottangi for information and necessary action. He is requested to process the alienation proposal in favour of Forest and Environment Department, Govt. of Odisha on obtaining the requisition from the Divisional Forest Officer, Koraput forthwith.

Copy forwarded to the Sub-Collector, Koraput for information and necessary action.


Additional District Magistrate,
Koraput

Memo No- 1537

Dated: 21.04.2023

Copy to the Managing Director, OMC, Bhubaneswar for information and necessary action.


Additional District Magistrate,
Koraput

Memo No- 1538

Dated: 21.04.2023

Copy to the Regional Manager, OMC, Rayagada, District-Rayagada for information and necessary action.


Additional District Magistrate,
Koraput

Memo No- 1539

Dated: 21.04.2023

Copy to the DFO, Keonjhar for information and necessary action.


Additional District Magistrate,
Koraput

ANNEXURE-I

JOINT VERIFICATION REPORT OF NON-FOREST GOVERNMENT LAND IN VILLAGE SORODA UNDER POTTANGI TAHASIL OF KORAPUT DISTRICT FOR RAISING COMPENSATORY AFFORESTATION IN LIEU OF THE FOREST LAND REQUIRED FOR JILLING-LONGALOTTA IRON & MANGANESE ORE MINING LEASE OF M/S ODISHA MINING CORPORATION LIMITED LOCATED IN THE DISTRICT OF KEONJHAR, ODISHA.

Certified that on joint verification of non-forest Government land in village Soroda under Pottangi Tahasil of Koraput district, it is found that the scheduled wise land mentioned in the table below is suitable for Block plantation @ 1000 plants/ha.

Tahasil	Village	Khata No.	Plot No.	Total area of the plot (Acres)	Area considered in (Acres)	Kissam	Boundary Description				Type of plantation recommended
							North	South	East	West	
Pottangi	Soroda	71 (Abada Ajogya Anabadi)	593	30.00	30.00	Patharabania	591,592	589,594	626	590	Block
			594	22.50	22.50	Patharabania	593	588	625	589	Plantation, 1000 plants per/ha.
			626 (p)	22.50	3.58	Pahada	628	625	626	592,593	
TOTAL						56.08 Acre or 22.697 ha					

Besides, the following are also certified for suitability of the area for Compensatory Afforestation:

1. Certified that the above non-forest Govt. land is in compact patches and in continuity fit for compensatory plantation.
2. Certified that these lands are not coming under reserve category like Gochar, Smalsana
3. These areas have adequate soil depth to sustain plantation and area manageable from silvicultural point of view.
4. Certified that the Government land are found suitable for plantation
5. Certified that these lands are free from encroachment and uncumbrances.
6. Certified that the above land is not covered under Section 4 (1) notification and do not come under any forest block
7. Certified that the above land is not coming under D.L.C land and forest land classification.
8. Certified that the above land is not allotted to any agency previously.
9. These lands can be given to Odisha Mining Corporation Limited for using the same towards Compensatory Afforestation
10. RoR is as per the land record available as on 25.10.1980.

Deputy
Range Officer,
Semiliguda Range

Forest Section Officer,
Pottangi
Sunkl Section

Tahasildar,
Pottangi
Tahasil of
Koraput

Form No. 39-A

ଖଟିଆନ

ମୌଜା : ଅସନବାହାଣି
ଥାନା : ରାମଚନ୍ଦ୍ର ପୁର
ଥାନା ନମ୍ବର : 1

ଚକ୍ରପାତ୍ର : ଅନୁମତି
ଚକ୍ରପାତ୍ର ନମ୍ବର : 01
ବିଭାଗ : ଜମିଦାରୀ

କମିଶନର ନାମ : ଡି. ଡି. ପାଣିଗ୍ରାହୀ
ଓ ଶେକର ବା ଖଟିଆନର ନମ୍ବର : 1

୧) ଖଟିଆନର କ୍ରମିକ ନମ୍ବର : ୧/୧୩

ଖଟିଆ ଶେକର ଶେକର ବିଭାଗରେ

୨) ପ୍ରକାର ନାମ :
ପିତ୍ତଳ ନାମ :
କାଟି ଓ ବସ୍ତ୍ରାଳ

କ୍ର. ସଂଖ୍ୟା	ନକସା	ଖଟିଆ	ସେପ୍	ନିୟାମ ଅନୁଯାୟୀ ଅନୁମତି ସେପ୍ ର ଚକ୍ରପାତ୍ର	ମୋଟ	୩) କ୍ରମିକ ନମ୍ବର ଓ ଖଟିଆନ ବିବରଣୀ
୪) ଦେୟ					0.00	

୫) ବିଶେଷ ଅନୁମତି
ସବୁ ଠିକ୍ ଅଛି

BLANK SPACE FOR STAMPING

ଅନୁମତି ପ୍ରଦାନକାରୀଙ୍କ ନାମ :
ଖଟିଆ ଥାନା ଖଟିଆ

YABASHI
BRAND LK

ଖଣ୍ଡିଆନର କ୍ରମିକ ନଂ 3/94

ସୌଦା : ଅନୁଲୋଚନା

ନିର୍ଦ୍ଦା : କେନ୍ଦ୍ରୀୟ

ପ୍ରତି ନମ୍ବର ଓ
ଚକ୍ର ନାମ

ନିର୍ଦ୍ଦା ଓ
ପ୍ରତି ଗାଆଁ

ନିର୍ଦ୍ଦା ବିପ୍ରାସିତ ବିବରଣ
ଓ ନୋଟ୍

ନିର୍ଦ୍ଦା

ମନୁଷ୍ୟ

୨	୩	୪	୫	୬	୭
160/418 ଚକ୍ରୀ	ପଥର ବଣ			୨୦ 21 510	୧୧ 8.7048 Alienation Case no. 78/2012 ପ୍ରତି ନିର୍ଦ୍ଦା ଗାଆଁ ଗାଆଁ ନମ୍ବର 7
150 ଚକ୍ରୀ	ପଥର ବଣ			22 750	9.2066 Alienation Case no. 78/2012 ପ୍ରତି ନିର୍ଦ୍ଦା ଗାଆଁ ଗାଆଁ ନମ୍ବର 7
144/417 ଚକ୍ରୀ	ପଥର ବଣ			31 860	12.8938 Alienation Case no. 78/2012 ପ୍ରତି ନିର୍ଦ୍ଦା ଗାଆଁ ଗାଆଁ ନମ୍ବର 7
3 ପ୍ରତି				76 120	30.8647

3F

Form No. 38-A

ଖତିୟାନ

ମୌଜା : ନୁଆହର
ଥାନା : ବାଞ୍ଜପାଲି
ଥାନା ନମ୍ବର : 79

ବହୁସିଲ : କେନ୍ଦୁଝର
ତହସିଲ ନମ୍ବର : 05
ଜିଲ୍ଲା : କେନ୍ଦୁଝର

କମିସନର ନାମ
ଓ ଖୋଜା ଓ ଖତିୟାନର
ନମ୍ବର

ଉଚ୍ଚିତା ସରକାର ପ୍ରଥମ ରାଗ ଖୋଜା ନମ୍ବର

୧) ଖତିୟାନର କ୍ରମିକ ନମ୍ବର

67/3

କନ ବିଭାଗ

୨) ପ୍ରକାର ନାମ,
ପିତାଙ୍କ ନାମ,
କାଟି ଓ ବସସ୍ଥାନ

କ) ପ୍ରକାର	କଳକର	ଖଜଣା	ସେସ	ସ୍ଥିର ଉପରୁ ଓ ଅନ୍ୟାନ୍ୟ ସେସ ର ବିବରଣ	ମୋଟ	୪) ଉପରବର୍ତ୍ତକାରୀଙ୍କ ଖଜଣାର ବିବରଣୀ
୪) ବେସ					0.00	

୫) ବିଶେଷ ଅନୁସନ୍ଧାନ
ପାଇଁ କିଛି ଆଦେଶ



24/5/12
TAHASILDAR
BANSPAI

BLANK SPACE FOR STAMPING

ଅନ୍ତିମ ପ୍ରକାଶନ ତାରିଖ :
ଖଜଣା ଆଦାନ ତାରିଖ :

ଆବଦ୍ଧି ନଂ 67/3

ମୋଡ଼ା : ଶ୍ରୀମତୀ

ଜିଲ୍ଲା : କେନ୍ଦ୍ରାପଡ଼ା

ପ୍ରତିନିଧିତ୍ୱ ଓ ତରଫ ନାମ	ନିୟମ ଓ ପ୍ରସଙ୍ଗ ଶୀର୍ଷକ	ବିଷୟର ବିସ୍ତାରିତ ବିବରଣୀ ଓ ଚୈତ୍ର	ରାଶି			ମନ୍ତବ୍ୟ
			ଟଙ୍କା	ପଇସା	ଶହରୁ	
୬	୮	୯	୧୦	୧୧	୧୨	୧୨
109/429	ପ୍ରସଙ୍ଗ		0.000	10.0000		
169/428	ପ୍ରସଙ୍ଗ		0.000	5.2771		
2 ପ୍ରସଙ୍ଗ			0.000	15.2771		

TAHASILDAR
BANSIPAI

**GOVERNMENT OF ODISHA
FOREST AND ENVIRONMENT DEPARTMENT**

-0-

NOTIFICATION

No. 10F(Div)-36/2012 16143 /F&E dated- 25.8.12

In exercise of the powers conferred under Section 33 of the Odisha Forest Act 1972 (Odisha Act 14 of 1972), the State Government do hereby declare that the following land situated in Village Asanabahali under Ghasipura Tahsil of the District of Keonjhar mutated and transferred for compensatory afforestation purposes against the proposed diversion of forest land for mining activities in Jhiling Longolota Iron and Manganese Mines of M/s Essel Mining & Industries Ltd. vide order No.8-49/98-FC(P) dt. 13.1.2012 of Government of India, Ministry of Environment and Forests under Section 2 of the Forest (Conservation) Act, 1980, the limits of which are specified below and the area of which is 30.8047ha. shall be Protected Forests with effect from the date of issue of the Notification and shall be known as "Asanabahali Protected Forest".

Forest Block:

Name of the Protected Forest	Asanabahali Protected Forests
Area in Ha.	30.8047ha
Name of the Village	Asanabahali
Name of the Police Station	Ghasipura
Name of the Tahasil	Ghasipura
Name of the Sub-Division	Anandapur
Name of the District	Keonjhar

Land Schedule:

Village	Khata No.	Plot No.	Kissam	Total area in acres	Boundary description (Plot no. existing)			
					North	South	East	West
Asanabahali	7- (AAA)	144(P)	Petharbari	31.86	Plot No. 144, 143	Plot No. 135, 123	Plot No. 135, 136, 137, 138	Plot No. 123, 124, 144
		150	Petharbari	22.73	Plot No. 53	Plot no. 140, 156	Plot No. 131, 132, 133, 134, 155, 156, 160	Plot No., 146, 148, 149

		160(P)	Patharbari	21.51	Plot No. 160	Plot No. 197, 196,	160, 161, 162, 163, 164, 165, 166, 167, 169, 191	Plc. No. 156, 157,158, 159, 160, 198,
				76.12 acres or 30.8047 ha				

By Order of the Governor

Memo No. 16144

F&E

Dated-

Principal Secretary to Government

Copy forwarded to the Director of Printing, Stationery and Publication, Odisha Cuttack for publication in an extra-ordinary issue of the Odisha Gazette and supply 10 copies of printed notification each to F&E Deptt./Director of Land Records and Surveys, Odisha, Cuttack/Collector, Keonjhar/D.R.O., Keonjhar Forest Division/Tahasildar, Ghaspura, dist. Keonjhar.

2. The Notification is statutory and may be assigned SRO number.

Memo No.

16145

Dated-

Additional Secretary to Government

Copy forwarded to the Senior Inspector General of Forests, Govt. of India, Ministry of Environment & Forests (FC Division), Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003/Chief Conservator of Forests (General), Govt. of India, MoEF, Eastern Regional Office, A/3, Chandrasekharpur, Bhubaneswar-23 for information and necessary action.

Memo No.

16146

Dated-

Additional Secretary to Government.

Copy forwarded to the Revenue & Disaster Management Deptt./Director of Land Records and Survey, Odisha, Cuttack/R.D.C.(N.D) Sambalpur/Collector, Keonjhar/Tahasildar, Ghaspura, Dist. Keonjhar for information and necessary action.

Memo No.

16147

Dated-

Additional Secretary to Government.

Copy forwarded to the Principal Chief Conservator of Forests, Odisha, Bhubaneswar/Chief Conservator of Forests (Forest Division) & Nodal Officer, FC Act O/O the FCCP, Odisha/Regional Chief Conservator of Forests, Rourkela Circle/D.R.O., Keonjhar Forest Division for information and necessary action.

Memo No.

16148

Dated-

Additional Secretary to Government.

Copy forwarded to the G.I.C., State Portal, N.I.C., I.T. Department, Odisha Secretariat, Bhubaneswar/ M/s Luminous Infoways Pvt. Ltd, Sachana, N-6/373, Nayapalli, Jayadev Vihar, Bhubaneswar-15 for information and necessary action. / 3 spare copies for G.P.

Additional Secretary to Government.

GOVERNMENT OF ODISHA
FOREST AND ENVIRONMENT DEPARTMENT

NOTIFICATION

No. 10F(Div)-36/2012 16/37 /F&E dated- 25/8/12

In exercise of the powers conferred under Section 33 of the Odisha Forest Act 1972 (Odisha Act 14 of 1972), the State Government do hereby declare that the following land situated in Village Lungajhar under Bansapal Tahsil of the District of Keonjhar mutated and transferred for compensatory afforestation purposes against the proposed diversion of forest land for mining activities in Jhiling Longolotta Iron and Manganese Mines of M/s Essel Mining & Industries Ltd vide order No.8-49/98-EC(Pt) dt. 13.1.2012 of Government of India, Ministry of Environment and Forests under Section 2 of the forest (Conservation) Act, 1980, the limits of which are specified below and the area of which is 15.2771ha shall be Protected Forests with effect from the date of issue of the Notification and shall be known as "Lungajhar A Protected Forest".

Forest Block:

Name of the Protected Forest	Lungajhar A Protected Forests
Area in Ha.	15.2771ha
Name of the Village	Lungajhar
Name of the Police Station	Kanhipani
Name of the Tahasil	Bansapal
Name of the Sub-Division	Keonjhar
Name of the District	Keonjhar

Land Schedule:

Village	Khata No.	Plot No.	Kissam	Total area in Ha.	Boundary description (Plot no. existing)			
					North	South	East	West
Lungajhar	67-AAA	369(P)	Parbat	5.2771	Plot No. 364, 365	Village boundary of Kuar	Plot no. 369, village boundary of Kuar	Plot No. 370
		209(P)	Parbat	10.0000	Plot No. 64	Plot no. 208	Plot No. 209	Plot No. 210
				15.2771				

By Order of the Governor

Principal Secretary to Government

Memo No. 16138 F&E Dated: 25/8/12

Copy forwarded to the Director of Printing, Stationery and Publication, Odisha Cuttack for publication in an extra-ordinary issue of the Odisha Gazette and supply 10 copies of printed notification each to F&E Deptt./Director of Land Records and Surveys, Odisha, Cuttack/Collector, Keonjhar/D.P.O., Keonjhar Forest Division/ Tahasildar, Bansapal, dist. Keonjhar.

2. The Notification is statutory and may be assigned SRO number.

Memo No. 16139 Dated: 25/8/12 Additional Secretary to Government

Copy forwarded to the Senior Inspector General of Forests, Govt. of India, Ministry of Environment & Forests (EC Division), Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003/Chief Conservator of Forests (Central), Govt. of India, MoEF, Eastern Regional Office, A/3, Chandrasekharpur, Bhubaneswar-23 for information and necessary action.

Additional Secretary to Government.

Memo No. 16140 Dated: 25/8/12

Copy forwarded to the Revenue & Disaster Management Deptt./Director of Land Records and Survey, Odisha, Cuttack/ R.D.C (N.D) Sambalpur/ Collector, Keonjhar/ Tahasildar, Bansapal, Dist. Keonjhar for information and necessary action.

Additional Secretary to Government.

Memo No. 16141 Dated: 25/8/12

Copy forwarded to the Principal Chief Conservator of Forests, Odisha, Bhubaneswar/ Chief Conservator of Forests (Forest Division) & Nodal Officer, FC Act O/O the PCCF, Odisha/Regional Chief Conservator of Forests, Rourkela Circle/ D.P.O., Keonjhar Forest Division for information and necessary action.

Additional Secretary to Government

Memo No. 16142 Dated: 25/8/12

Copy forwarded to the O.I.C., State Portal, N.I.C., I.T. Department, Odisha Secretariat, Bhubaneswar/ M/s. Eumuous Infoways Pvt. Ltd, Sadhana, N-6/373, Nayapalli, Jayadev Vihar, Bhubaneswar-15 for information and necessary action. / (5 spare copies for G.F.)

Additional Secretary to Government.

13/01

⑨



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Ph. No. 06766-254315, E.mail- dfokjr.od@gov.in

No. 322 /6F-Mining- /2020
Dated, Keonjhar the 11 January, 2021

To

The Executive Director (F&E),
M/s OMC Ltd, OMC House,
Bhubaneswar- 751001

Sub: Guideline under FC Act, 1980 in pursuance of the "The Mineral Laws (Amendment) Act, 2020" – regarding.

X-Sub: Demand of funds towards Net Present Value (NPV) in respect of Jilling- Longlota Block for Iron Ore over 369.529 ha of forest land.

Ref: F.No.11-97/2018-FC dated 31.03.2020 & F.No.11-97/2018-FC Part(I) dated 05.05.2020 of MoEF&CC, GoI & Notification No.299/SM dated 11.01.2021 of O.S.D-cum-Addl. Secretary to Government, Steel & Mines Department, Govt. of Odisha.

Sir,

As per the Para-C of the guideline issued by the MoEF&CC, GoI vide F. No.11-97/2018-FC dated 31.03.2020 & F.No.11-97/2018-FC Part(I) dated 05.05.2020 and notification No.299/SM dated 11.01.2021 of O.S.D-cum-Addl. Secretary to Government, Steel & Mines Department, Govt. of Odisha, you are requested to deposit the amount of ₹27,71,46,750/- (Rupees twenty seven crore seventy one lakh forty six thousand seven hundred fifty) only @ ₹ 7.50 lakhs per ha towards Net Present Value (NPV) over 369.529 ha of total forest land involved within the Jilling- Longlota Block for Iron Ore. This amount shall be deposited into the account of CAMPA, which will be adjusted against actual compensatory levies payable on the forest land at the time of approval under FC Act, 1980. The proof/evidence of the deposit of fund should be submitted to this office for further necessary action at this end.

Also it is requested to follow the instruction and provision in the manual for making online payment of NPV, wherein prior permission of Central Government under the FC Act, 1980 was granted for carrying our mining operation for a maximum period of two years from the date of commencement of new lease on the same term and conditions which was stipulated in the approval under FC Act, 1980 obtained by the previous lessee.

Further, it is intimated that the proposal No. & file No. of the earlier diversion by the previous lessee is furnished below for your reference.

Proposal No.FP/OR/MIN/1004/2011 & File No.8-48/1998-FC (pt).

Enclosure-I. Manual for online payment of NPV.

2. F.No.11-97/2018-FC-Part(I) dated 05.05.2020 of MoEF&CC, GoI letter.

Yours faithfully,

[Signature]
Divisional Forest Officer,
Keonjhar Division.

Memo No. 323 /Dated. 11.01.2021


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

[Signature]
Divisional Forest Officer,
Keonjhar Division.

PTO

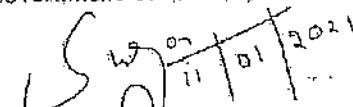
Memo No. 324 / Dated. 11-01-2021

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

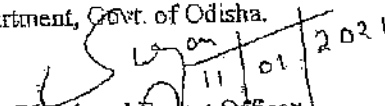
Memo No. 325 / Dated. 11-01-2021

Copy submitted to the Special Secretary to Government of Odisha, F&E Deptt. for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 326 / Dated. 11-01-2021

Copy submitted to the Director of Mines, Government of Odisha, Bhubaneswar for favour of kind information and necessary action with reference to memo No.301/SM dated 11.01.2021 of O.S.D-cum-Addl. Secretary to Government, Steel & Mines Department, Govt. of Odisha.


Divisional Forest Officer,
Keonjhar Division.



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION
Phone No- 06766-254315, email ID- dfokjr.od@gov.in

No. 342 /6F-Mining-15/2021
Dated, Keonjhar the 14th Jan 2021

To

The Collector & District Magistrate,
Keonjhar

Sub:

Reservation of Jilling - Langlotta Iron Ore Block over an area of 456.100 ha (as per RoR) /456.037 ha (As per DGPS) in Keonjhar District as per provision of section 17 A (2) of MMDR Act read with order no F. No 4/1/2020 - M.VI, dated 05.01.2021 of Central Govt. in Ministry of Mines in favour of OMC Ltd. for mining lease over a period of 10 years.

Ref:

Notification No. 299/SM dated 11.01.2021 and order No. 317/SM dated 11.01.201 of Govt. of Odisha Steel and Mines Department.


Sir,

With reference to the Letter No. cited above on the captioned subject, this is to intimate you that M/s OMC Ltd, has deposited Rs.27,71,46,750 .00(Rupees Twenty Seven Crore seventy one Lakh forty six thousand seven hundred fifty Only) towards the cost of Net Present Value (NPV) of the forest land over 369.529 ha involves in the above mentioned Mining block Vide UTR No .SBINR12021011106076046 dated. 11.01.2021 in Ad-hoc CAMPA Account. (Copy enclosed).

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

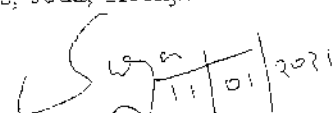
Encl:-As above.

Yours faithfully,


Divisional Forest Officer,
Keonjhar Division

Memo No. 343 /Dated 14-01-2021

Copy forwarded to Joint Director of Mines, Joda, Keonjhar for information and necessary action.


Divisional Forest Officer,
Keonjhar Division



1/11/2021

State Bank of India

Welcome : ORISSA MINING CORPORATION LTD (17885) Know More

Srikanta Mohapatra

You are here: / Reports / Query By Account

e-PayOrder Details

e-PayOrder Details

e-PayOrder Number CRB7156456

Debit Status Success

11-Jan-2021

ORISSA CAMPA

Twenty Seven Crores Seventy One Lakhs Forty Six Thousand Seven Hundred
and Fifty only 27,71,46,750.00

00000010872145031

BHUBANESWAR MAIN BRANCH

Amiya Ballav

Manager

"CRB7156456"

SAROJ KUMAR

PO, STY

Approver

Harihar Pande

Authorizer 1

Srikanta

Mohapatra

Approver 2

Counterfoil Description NPV FOR JILLINGHONGLODA

Transaction Type RTGS Funds transfer

GSTIN Number --

Debit Account Details

00000010872145031

BHUBANESWAR MAIN BRANCH

27,71,46,750.00

Credit Account Details

1/11/2021

State Bank of India

Branch	Account No.	Amount	Debit/Credit	Transaction No.
ORISSA	NEW DELHI LODHI COMPLEX/NEW	27,71,66,750.00	Processed	SBIFR12011001100076096
CAMPA/150625310040989	DELHI LODHI COMPLEX/CORP0000371			

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Site best viewed at 1024 x 768 resolution in IE 10 +, Mozilla 35 +, Google Chrome 35 +



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfo.keonjhar@odisha.gov.in

Memo No. 9699

/6F-Mining-19/2024

Dated, Keonjhar the

28th November, 2024

To

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

Sub: Proposal for Diversion of 22.697 ha of Sabik Kisam Forest Land within the total mining lease area of 456.037 ha of Jilling Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District-regarding.

Ref: 1. Your Memo No.22874 dated 14.11.2024, No.18551 dated 12.09.2024 & 17325 dated 28.08.2024.
2. Memo No.5547 dated 21.11.2024 of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

This is to inform you that, during auction of Jilling-Longlota Mines, M/s OMC Ltd had deposited the lump sum amount @ 7.50 lakh per ha over the forest area involved in mining lease to the tune of Rs. 27,71,46,750/- owing to Ministry's guidelines dated 31.03.2020.

As per your memo No.17325 dated 28.08.2024 the aforesaid amount will be adjusted towards actual compensatory levies payable at the time of approval relating to the project.

Further, it is mentioned vide your memo No.22874 dated 14.11.2024 to adjust the demanded amount of this division from the unadjusted amount, of the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur

Accordingly, the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur has intimated vide his memo No. 5547 dated 21.11.2024 that a sum of Rs.5,28,69,292/- are remained unadjusted, which may be adjusted towards the demanded amount of this division.

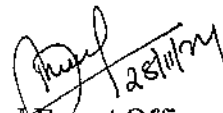
As such, the compensatory levies need to be adjusted from the above lump sum amount and unadjusted amount of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur, the details of which is depicted below:-

Sl. No.	Particulars	Amount in Rupees
1	Compensatory Afforestation against Pre-80 broken up forest land.	Rs.23,92,62,400/-
2	CA over (22.697 ha) + Gap planting.	Rs.1,87,30,000/- ✓
3	NPV (as demanded vide this office letter No 8445 dated 17.10.2024).	Rs.2,44,30,067/- ✓
4	Site Specific Wildlife Conservation Plan (as demanded vide this	Rs.3,23,58000/- ✓

	office letter No 5821 dated 06.07.2024).	
	Total Compensatory levies	Rs. 31,47,80,467/-
5	Lump sum amount deposited by the UA	Rs.27,71,46,750/- ✓
	Balance Amount to be paid by the User Agency	Rs. 3,76,33,717/-
6	Amount adjusted from the un-adjusted amount of Rs.5,28,69,292/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.	Rs. 3,76,33,717/-
	Balance amount to be paid	Nil

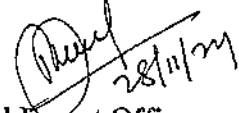
After adjustment of Rs. 3,76,33,717/-, a sum of Rs. 1,52,35,575/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur is still remain un-adjusted.

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


Divisional Forest Officer,
Keonjhar Division.

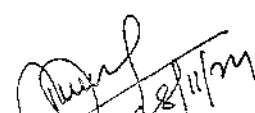
Memo No. 9700 /Dated 28.11.2024

Copy submitted to the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur for favour of kind information and necessary action with reference to his memo No. 5547 dated 21.11.2024.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9701 /Dated 28.11.2024

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9702 /Dated 28.11.2024

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.


Divisional Forest Officer,
Keonjhar Division.



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

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

Letter No. 8445

/6F-Mining-19/2024

Dated, Keonjhar the

19th October, 2024

To

The Executive Director (F&E),
M/s OMC Ltd, OMC House,
Bhubaneswar- 751001.

[Signature]
21/10/24

Sub: Proposal for diversion of 22.697 ha Sabik Kissam forest land within the total mining lease area of 456.037 ha (As per DGPS Survey) of Jilling-Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District.

X-Sub: **Revised Demand of funds towards Net Present Value (NPV) over 13.9877 ha (22.697 ha – 8.7093 ha) Sabik Kissam forest land in respect of Jilling-Longlota Block of M/s OMC Ltd.**

Ref: 1. This office letter No.4068 dated 16.05.2024, No.5860 dated 25.07.2024, No.2864 dated 04.04.2024 & No.8028 dated 04.10.2024.
2. Memo No.18551 dated 12.09.2024 of Chief Conservator of Forests (Nodal), O/o- the PCCF&HoFF, Odisha, Bhubaneswar.
3. Letter No.8-49/1998-FC (PT)I dated 09.02.2024 of MoEF&CC, GoI, New Delhi.

Sir

With reference to the aforementioned letters on the captioned subject, this is to intimate that, out of 22.697 ha Sabik Kissam Forest land, 10.8213 ha Sabik Kissam Forest land was involved in the ML area of Ex- lessee i.e. M/s Essel Mining & Industries Ltd., for which the NPV was paid by the Ex-lessee. But as per the report of the Tahasildar, Barbil vide his letter No. 2227 dated 20.06.2024, out of above 10.8213 ha Sabik Kissam Forest land an area of 2.112 ha has been excluded from current Mining Lease area of 22.697 ha, and balance area 8.7093 ha (10.8213 ha -2.112 ha) is the part of 22.697 ha Sabik Kissam Forest land. As the ex-lessee has paid the NPV for the said 8.7093 ha, hence the present lessee i.e. M/s OMC Ltd. needs to pay NPV over 13.9877 ha (22.697 ha – 8.7093 ha) Sabik Kissam Forest.

So, in complying to the condition No.3 (i) of Stage-I approval order dated 09.02.2024 of MoEF&CC, GoI, New Delhi and memo No. 18551 dated 12.09.2024 of Chief Conservator of Forests (Nodal), O/o- the PCCF&HoFF, Odisha, Bhubaneswar and in partial modification of this office letter No.8028 dated 04.10.2024, you are requested to deposit an amount of **Rs. 2,44,30,067/- (Rupees two crore forty-four lakh thirty thousand sixty-seven) only** towards Net Present Value (NPV) over 13.9877 ha Sabik Kissam forest land involved in Jilling- Longlota Block of M/s OMC Ltd in Orissa CAMPA Account through e-portal of MoEF&CC, GoI as provided in the <https://parivesh.nic.in/> and the proof/evidence of the deposit of fund be submitted to this office for further necessary action at this end.

The details of calculation of NPV is furnished as below:-

PTO

MCF&H
21/10/24

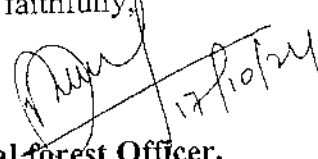
[Signature]
22/10/24

Condition No. of Stage-I approval dated 09.02.2024.	Forest Land	NPV Due (@ Rs.14,36,670/- per ha (in Rs.))	NPV Paid for 8.7093 ha Sabik Kissam Forest land (@ Rs.9,39,000/- per ha (in Rs.))	Balance amount to be Paid. (In Rs.).
Condition No.3(i)	An area of 22.697 ha Sabik Kissam Forest land involved in Jilling- Longlota Block of M/s OMC Ltd. (As per Site Inspection Report dated 08.10.2021 of DFO Keonjhar, the average density taken into consideration is 0.5, ECO Class-I	3,26,08,099.00	81,78,032.70	2,44,30,066.30
Gross Total				Rs.2,44,30,066.30 Or Say Rs.2,44,30,067.00

(Rupees two crore forty-four lakh thirty thousand sixty-seven) only.

- The earlier demand letter issued vide this office letter No.8028 dated 04.10.2024 is hereby cancelled.

Yours faithfully,


Divisional forest Officer,
Keonjhar Division.

Memo No. 8446 / Dated. 17.10.24

Copy submitted to the Principal Chief Conservator of Forests, Forest Division (FD&NO), FC Act, O/o the Principal Chief Conservator of Forests, Odisha, Bhubaneswar for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 8447 / Dated. 17.10.24

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfo.keonjhar@odisha.gov.in

Memo No. 9699

/6F-Mining-19/2024

Dated, Keonjhar the

28th November, 2024

To

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

Sub: Proposal for Diversion of 22.697 ha of Sabik Kisam Forest Land within the total mining lease area of 456.037 ha of Jilling Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District-regarding.

Ref: 1. Your Memo No.22874 dated 14.11.2024, No.18551 dated 12.09.2024 & 17325 dated 28.08.2024.
2. Memo No.5547 dated 21.11.2024 of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

This is to inform you that, during auction of Jilling-Longlota Mines, M/s OMC Ltd had deposited the lump sum amount @ 7.50 lakh per ha over the forest area involved in mining lease to the tune of Rs. 27,71,46,750/- owing to Ministry's guidelines dated 31.03.2020.

As per your memo No.17325 dated 28.08.2024 the aforesaid amount will be adjusted towards actual compensatory levies payable at the time of approval relating to the project.

Further, it is mentioned vide your memo No.22874 dated 14.11.2024 to adjust the demanded amount of this division from the unadjusted amount, of the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

Accordingly, the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur has intimated vide his memo No. 5547 dated 21.11.2024 that a sum of Rs.5,28,69,292/- are remained unadjusted, which may be adjusted towards the demanded amount of this division.

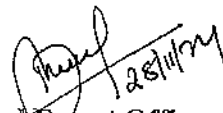
As such, the compensatory levies need to be adjusted from the above lump sum amount and unadjusted amount of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur, the details of which is depicted below:-

Sl. No.	Particulars	Amount in Rupees
1	Compensatory Afforestation against Pre-80 broken up forest land.	Rs.23,92,62,400/-
2	CA over (22.697 ha) + Gap planting.	Rs.1,87,30,000/- ✓
3	NPV (as demanded vide this office letter No 8445 dated 17.10.2024).	Rs.2,44,30,067/- ✓
4	Site Specific Wildlife Conservation Plan (as demanded vide this	Rs.3,23,58000/- ✓

	office letter No 5821 dated 06.07.2024).	
	Total Compensatory levies	Rs. 31,47,80,467/-
5	Lump sum amount deposited by the UA	Rs.27,71,46,750/- ✓
	Balance Amount to be paid by the User Agency	Rs. 3,76,33,717/-
6	Amount adjusted from the un-adjusted amount of Rs.5,28,69,292/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.	Rs. 3,76,33,717/-
	Balance amount to be paid	Nil

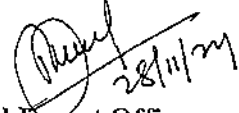
After adjustment of Rs. 3,76,33,717/-, a sum of Rs. 1,52,35,575/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur is still remain un-adjusted.

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


Divisional Forest Officer,
Keonjhar Division.

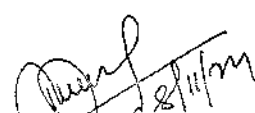
Memo No. 9700 /Dated 28.11.2024

Copy submitted to the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur for favour of kind information and necessary action with reference to his memo No. 5547 dated 21.11.2024.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9701 /Dated 28.11.2024

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9702 /Dated 28.11.2024

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.


Divisional Forest Officer,
Keonjhar Division.



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

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

Letter No. 4059 /6F-Mining-19/2024

Dated, Keonjhar the 16th May, 2024

To

The Executive Director (F&E),
M/s OMC Ltd, OMC House,
Bhubaneswar- 751001

Sub: Proposal for diversion of 22.697 ha Sabik Kissam forest land within the total mining lease area of 456.037 ha (As per DGPS Survey) of Jilling-Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District.

X-Sub: **Demand of funds towards Penal NPV over 22.697 ha Sabik Kissam forest land in respect of Jilling- Longlota Block of M/s OMC Ltd.**

Ref: 1.Your letter No.6048 dated 05.04.2024.
2.This office letter No.2864 dated 04.04.2024.
3.Letter No.8-49/1998-FC (PT) dated 09.02.2024 of MoEF&CC, GoI, New Delhi.

Sir

In continuation to this office letter under reference, this is to intimate that, in complying to the condition No.3(i) of Stage-I approval order dated 09.02.2024 you are requested to deposit an amount of **Rs. 11,62,06,277/- (Rupees eleven crore sixty two lakh six thousand two hundred seventy seven) only** towards Penal NPV over 22.697 ha Sabik Kissam forest land involved in Jilling- Longlota Block of M/s OMC Ltd in Orissa CAMPA Account through e-portal of MoEF&CC, GoI as provided in the <https://parivesh.nic.in/> and the proof/evidence of the deposit of fund be submitted to this office for further necessary action at this end.

Total Penal NPV over 22.697 ha sabik kissam forest land comes to Rs.16,30,40,495/- (22.697 ha x NPV @ Rs.14,36,670/- x 5 times).

Details Calculation of Penal NPV to be paid by the Ex- lessee & Present Lessee.

Name of the Lessee	Area of violation	Period of violation	Violation Factor (Total area x period violation)	Total Violation Factor (Ex- lessee + Present Lessee)	Penal NPV to be paid (Lessee wise violation factor / Tot. violation factor x Tot. Penal NPV amount)	12% simple interest for 1 month over Penal NPV amount	Total Penal NPV with 12% simple interest to be paid by user agency
Ex-lessee i.e. M/s Essel Mining & Industries Ltd.	5.76 ha	5.06 Yrs	29.1456	99.0296	29.1456 / 99.0296 x Rs.16,30,40,495/- = Rs. 4,79,84,775/-	Rs.4,79,848/-	Rs. 4,84,64,623/-
Present Lessee i.e. M/s OMC Ltd.	22.697 ha (5.76 ha + 16.937 ha)	3.079 Yrs	69.884		69.884 / 99.0296 x Rs.16,30,40,495/- = Rs. 11,50,55,720/-	Rs.11,50,557/-	Rs.11,62,06,277/-
Total			99.0296				

Yours faithfully,


Divisional forest Officer,
Keonjhar Division.

PTO

Memo No. 4060 / Dated. 16.05.2024

Copy submitted to the Principal Chief Conservator of Forests, Forest Division (FD&NO), FC Act, O/o the Principal Chief Conservator of Forests, Odisha, Bhubaneswar for favour of kind information and necessary action with reference to this office memo No.2865 dated 04.04.2024.


Divisional Forest Officer,
& Keonjhar Division.

Memo No. 4061 / Dated. 16.05.2024

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action with reference to this office memo No.2866 dated 04.04.2024.


Divisional Forest Officer,
& Keonjhar Division.

11th June , 2024

To

**The Divisional Forest Officer
Keonjhar Division**

Sub: Proposal for diversion of 22.697ha of Sabik KISSAM forest land within total Mining Lease area of 456.100 ha (as per DGPS Survey) of Jilling-Langalota Iron Ore Mines of OMC Ltd. in Keonjhar District.

Ref: Letter No.4059 dt. 16.05.2024 by DFO, Keonjhar.

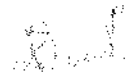
Sir,

DFO, Keonjhar, had raised a demand of Rs 11, 62, 06,277/- as penal NPV over 22.697 ha of forest land within Jilling Langalota Iron Ore Mines vide letter under reference.

OMC has deposited Rs. 11, 62, 06,277/- (Rupees eleven crore sixty two lakh six thousand two hundred seventy seven only) vide UTR No. UBINI24163871690 dt. 11.06.2024 in the ORRISA CAMPA account as per the Challan generated from PARIVESH. The details of payment receipt is attached for your refrence and record.

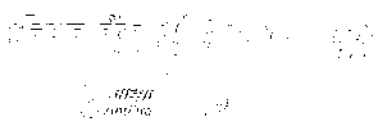
This is for your kind information.


Yours faithfully,



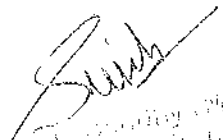
Encls. as above.

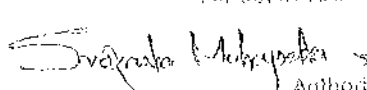
(Debidutta Kumar (Jha), OAG)
Chief Vigilance Officer cum Land Officer
(authorised signatory)

AGENCY COPY	
	
NEFT / RTGS CHALLAN for CAMPA Funds	
Date : 10-06-2024	
Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	58142115320
MoEF/SG File No.	8-49/1998-FC (PT-I)
Location.	ORRISA
Address.	OMC House Khordha
Amount(in Rs)	116206277/-
Amount in Words :Eleven Crore Sixty-Two Lakh Six Thousand Two Hundred and Seventy-Seven Rupees Only	
NEFT/RTGS to be made as per following details;	
Beneficiary Name:	ORRISA CAMPA
IFSC Code:	UBIN0993710
Pay to Account No.	1508258142115320 Valid only for this challan amount
Bank Name & Address:	Union Bank Of India FCG Centre, 2/1/1, III Floor, Jeebika Towers, Mission Road, Cuttack, India-753001
This challan is valid only for the amount and date of payment. It is not valid for any other purpose.	

BANK COPY	
	
NEFT / RTGS CHALLAN for CAMPA Funds	
Date : 10-06-2024	
Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	58142115320
MoEF/SG File No.	8-49/1998-FC (PT-I)
Location.	ORRISA
Address:	OMC House Khordha
Amount(in Rs)	116206277/-
Amount in Words :Eleven Crore Sixty-Two Lakh Six Thousand Two Hundred and Seventy-Seven Rupees Only	
NEFT/RTGS to be made as per following details;	
Beneficiary Name:	ORRISA CAMPA
IFSC Code:	UBIN0993710
Pay to Account No.	1508258142115320 Valid only for this challan amount
Bank Name & Address:	Union Bank Of India FCG Centre, 2/1/1, III Floor, Jeebika Towers, Mission Road, Cuttack, India-753001
This challan is valid only for the amount and date of payment. It is not valid for any other purpose.	

NOTE: After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcblr@unionbankofindia.bank, eperor@unionbankofindia.bank, ubin0993710@unionbankofindia.bank


Sushanta Mahapatra
Authorized Signatory

For ODISHA MINING CORPORATION LTD.
 Sushanta Mahapatra
Authorized Signatory

(20,1419 24163821690)
10/06/2024

13/01
(9)

OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Ph. No. 06766-254315, E.mail- dfokjr.od@gov.in

No. 322 /6F-Mining- /2020
 Dated, Keonjhar the 11th January, 2021

To

The Executive Director (F&E),
 M/s OMC Ltd, OMC House,
 Bhubaneswar- 751001

Sub: Guideline under FC Act, 1980 in pursuance of the "The Mineral Laws (Amendment) Act, 2020" – regarding.

X-Sub: Demand of funds towards Net Present Value (NPV) in respect of Jilling- Longlota Block for Iron Ore over 369.529 ha of forest land.

Ref: F.No.11-97/2018-FC dated 31.03.2020 & F.No.11-97/2018-FC Part(I) dated 05.05.2020 of MoEF&CC, Gol & Notification No.299/SM dated 11.01.2021 of O.S.D-cum-Addl. Secretary to Government, Steel & Mines Department, Govt. of Odisha.

Sir,

As per the Para-C of the guideline issued by the MoEF&CC, Gol vide F. No.11-97/2018-FC dated 31.03.2020 & F.No.11-97/2018-FC Part(I) dated 05.05.2020 and notification No.299/SM dated 11.01.2021 of O.S.D-cum-Addl. Secretary to Government, Steel & Mines Department, Govt. of Odisha, you are requested to deposit the amount of ₹27,71,46,750/- (Rupees twenty seven crore seventy one lakh forty six thousand seven hundred fifty) only @ ₹ 7.50 lakhs per ha towards Net Present Value (NPV) over 369.529 ha of total forest land involved within the Jilling- Longlota Block for Iron Ore. This amount shall be deposited into the account of CAMPA, which will be adjusted against actual compensatory levies payable on the forest land at the time of approval under FC Act, 1980. The proof/evidence of the deposit of fund should be submitted to this office for further necessary action at this end.

Also it is requested to follow the instruction and provision in the manual for making online payment of NPV, wherein prior permission of Central Government under the FC Act, 1980 was granted for carrying out mining operation for a maximum period of two years from the date of commencement of new lease on the same term and conditions which was stipulated in the approval under FC Act, 1980 obtained by the previous lessee.

Further, it is intimated that the proposal No. & file No. of the earlier diversion by the previous lessee is furnished below for your reference.

Proposal No.FP/OR/MIN/1004/2011 & File No.8-48/1998-FC (pt).

Enclosure-I.Manual for online payment of NPV,

2. F.No.11-97/2018-FC-Part(I) dated 05.05.2020 of MoEF&CC, Gol letter.

Yours faithfully,

[Signature]
 Divisional Forest Officer,
 Keonjhar Division.

Memo No. 323 /Dated. 11.01.2021

Copy submitted to the Principal Chief Conservator of Forests, Forest Division and Nodal Officer, FC Act, O/o the Principal Chief Conservator of Forests, Odisha, Bhubaneswar for favour of kind information and necessary action.

[Signature]
 Divisional Forest Officer,
 Keonjhar Division.

PTO

[Signature]
 11/01/2021
 12-01-2021


Memo No. 324 /Dated. 11-01-2021

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.


11/01/2021
Divisional Forest Officer,
Keonjhar Division.

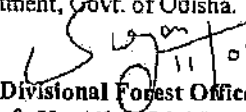
Memo No. 325 /Dated. 11-01-2021

Copy submitted to the Special Secretary to Government of Odisha, F&E Deptt. for favour of kind information and necessary action.


11/01/2021
Divisional Forest Officer,
Keonjhar Division.

Memo No. 326 /Dated. 11-01-2021

Copy submitted to the Director of Mines, Government of Odisha, Bhubaneswar for favour of kind information and necessary action with reference to memo No.301/SM dated 11.01.2021 of O.S.D-cum-Addl. Secretary to Government, Steel & Mines Department, Govt. of Odisha.


11/01/2021
Divisional Forest Officer,
Keonjhar Division.

1/11/2021

State Bank of India

Welcome: ORISSA MINING CORPORATION LTD (17885) [Know More](#)
Srikanta Mohapatra

You are here: / Reports / Query By Account

e-PayOrder Details

e-PayOrder Details

e-PayOrder Number CR27156456
Debit Status Success

11-Jan-2021

ORISSA CAMPA

Twenty Seven Crores Seventy One Lakhs Forty Six Thousand Seven Hundred
and Fifty only 27,71,46,750.00

00000010872145031

BHUBANESWAR MAIN BRANCH

Arniya Ballav
NAYAK
"CR27156456"

SAROJ KUMAR
PRUSTY
Approver

Harishar Panda
Authorizer 1

Srikanta
Mohapatra
Authorizer 2

Counterfoil Description

NPV FOR JILLING-LONGLOTA

Transaction Type

RTGS Funds transfer

GSTIN Number

Debit Account Details

00000010872145031

BHUBANESWAR MAIN BRANCH

27,71,46,750.00

Credit Account Details

<https://corp.onlinesbi.com/corpusser/viewinboxtransactiondetail.htm>

1/11/2021

State Bank of India

CRISSA	NEW DELHI LODHI COMPLEX/NEW	27,71,46,750.00	Processed	SBINR12021011100076046
CAMPA/150625810000888	DELHI LODHI COMPLEX/CORP0000371			

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8-27/2017FC

33017/FE/2023
26.12.23

1/60715/2023

1374

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan
Aliganj, Jor Bagh Road
New Delhi-110003

Dated: 22nd December, 2023

22 DEC 2023

To
Addl. Chief Secretary (Forest),
Government of Odisha,
Bhubaneswar

Sub: Grant of permission to surrender 98.731 ha out of 103.198 ha approved forest area granted by MOEF & CC, Government of India over 106.016 ha of forest land pertaining to Daitari Conveyor Corridor proposal of OMC Ltd., located in Keonjhar District, Odisha (Proposal No. FP/OR/MIN/10335/2015).

Madam/ Sir

I am directed to refer to Government of Odisha's letter No. FE-DIV-FLD-0068-2021-21286/FE&CC dated 10.10.2023 on above subject for seeking permission in respect of the following proposed application:

Surrender of 98.731 ha of land in Rebana RF of Daitari Conveyor corridor already taken over by the DFO, Keonjhar (WL) Division may be accepted.

- Approval conveyed for re-diversion of 2.818 ha (1.89 ha of Daitari ML + 0.928 ha of Daitari extension) forest land may be revoked.
- 4.467 ha forest land out of the approved 103.198 ha of forest land by MOEF & CC, Govt on 22.03.2021 of Daitari Conveyor Corridor project in land use pattern Crushing and Screening Plant Conveyor Corridor and approach road to plant and conveyor corridor for operation and maintenance may be changed to Mining (0.105 ha) and creation of green belt (4.362 ha).

In this regard it is informed that the proposal was considered in the Advisory Committee meeting held on 29.11.2023 and after obtaining the approval of the competent authority in the Ministry on the recommendation of the Advisory Committee, the Central Government has accepted the request of the State Government on the following proposed application:

- Surrender of 98.731 ha forest approved land of Rebana RF.
- Re-Diversion of 4.467 ha Stage-II approved forest land of Daitari ML.
- Revocation of Re-diverted area of 2.818 ha

subject to the condition that:

"The NPV, CA land and amount received for other levies may be adjusted by the State Govt. as per extant guidelines in the forthcoming projects of UA.

Yours faithfully

Signed by

Charan Jeet Singh

(Charan Jeet Singh)

Date: 22-12-2023 10:07:30

Scientist 'D'

Copy to:

- PCCF (HoFF), Government of Odisha, Bhubaneswar.
- PCCF cum Nodal Officer (FCA) Government of Odisha, Bhubaneswar
- DDGF (Central), MoEF&CC's Integrated Regional Office, A/3, Chandrasekharpur,

Use in
26.12.23
scb
26.12.23

460

272

8-27/2017FC

17/0715/2023

- Bhubaneswar (Odisha)
4. User Agency.
 5. Monitoring Cell of FC Division.

17/0715/2023



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

E-mail:- nodal.pccfodisha@gmail.com

Memo No. 22873 /9F (MG) – 70/2021

Dated, Bhubaneswar the 14th November 2024

To

The Divisional Forest Officer

Keonjhar (WL) Division, Anandapur

- Sub: (i) Adjustment of compensatory levies in respect of non-forestry use of 22.697 ha forest land in respect of Jilling-Longlota Iron Ore Block within total mining lease of 456.100 ha in Keonjhar District of M/s OMC Ltd – regarding.
(ii) Adjustment of compensatory levies for grant of permission to surrender 98.731 ha out of 103.198 ha of approved forest area granted by MoEF & CC, Govt. of India over 106.016 ha of forest land pertaining to Daitari Conveyor Corridor – regarding.
- Ref: (i) Letter No. 8178/OMC/F&E/2024 dated 17.05.2024 of the Chief Vigilance Officer and Land Officer, Authorised Signatory, M/s OMC Ltd.
(ii) Your Memo No. 3698 dated 06.08.2024.

In inviting a reference to the subject cited above, it is to inform you that M/s OMC Ltd. vide letter at (i) has requested to adjust Rs 10,08,93,807/- deposited in CAMPA account due to surrender of 98.731 ha forest land in respect of diversion of 106.016 ha forest land. This amount includes the cost of SSWLCP of Rs 24,59,000/-.

The SSWLCP has been revised for Rs 2493.26125 lakh vide letter No.3126 dated 11.03.2024. In the approval letter, it has been categorically mentioned that the amount of Rs 455.65515 lakh shall be deposited in the CAMPA account as the user agency has deposited 2037.607 lakh as per approval of the previous SSWLCP. The deposited amount of Rs 20,37,60,700/- includes Rs 24,59,000/- as mentioned above. Thus, the amount to be adjusted comes to Rs.9,84,34,807/- (Rs 10,08,93,807 – Rs.24,59,000/-).

In this context, you had intimated vide letter at (ii) above, that out of total deposited amount of Rs 10,08,93,807/-, an amount of Rs 4,55,65,515/- is to be adjusted towards SSWLCP for extension of Daitari Railway Line leaving a balance amount of Rs 5,53,28,292/- unadjusted which is further to be adjusted towards compensatory levies as demanded, which is incorrect.

In view of the above, I am directed to request you to recalculate the amount to be adjusted and intimate the said figure to the DFO, Keonjhar Forest Division to enable the DFO, Keonjhar Forest Division to adjust the demanded amount from the unadjusted amount at his end.


Chief Conservator of Forests (Nodal)

Memo No. 22874 Dt. 14.11.2024

Copy forwarded to the DFO, Keonjhar Forest Division for information & necessary action with reference to his Memo No. 8665 dated 25.10.2024. He is requested to adjust the demanded amount from the unadjusted amount after receiving the revised information/figure from DFO, Keonjhar (WL) Division, Anandapur.

Memo No. 22875 Dt. 14.11.2024 Chief Conservator of Forests (Nodal)

Copy forwarded to the RCCF, Rourkela Circle for information & necessary action with reference to Memo No. 8666 dated 25.10.2024 of DFO, Keonjhar Forest Division.

Memo No. 22876 Dt. 14.11.2024 Chief Conservator of Forests (Nodal)

Copy forwarded to the FD, STR-cum-RCCF, Baripada Circle for information & necessary action with reference to Memo No. 3700 dated 06.08.2024 of DFO, Keonjhar (WL) Division, Anandapur.

Memo No. 22877 Dt. 14.11.2024 Chief Conservator of Forests (Nodal)

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.

Chief Conservator of Forests (Nodal)



OFFICE OF THE
DIVISIONAL FOREST OFFICER, KEONJHAR WILDLIFE DIVISION, ANANDAPUR.
At/PO- Salapada, Dist- Keonjhar, Pin- 758020, e-mail id: dfo.keonjharwl@odisha.gov.in

Letter No. 5547 /3WL (Lease)/ /2024
Dated, Anandapur the 21st November'2024.

To

The Divisional Forest Officer
Keonjhar Forest Division, Keonjhar.

Sub: - (i) Adjustment of Compensatory levies in respect of non-forestry use of 22.697 ha. of forest land in respect of Jilling Langalota Iron ore Block within total mining lease of 456.100 ha in Keonjhar District of OMC Ltd.-regarding.
(ii) Adjustment of compensatory levies for grant of permission to surrender 98.731 ha out of 103.198 ha of approved forest area granted by MoEF & CC, Govt. of India over 106.016 ha of forest land pertaining to Daitari Conveyer Corridor -regarding.

Ref: - (i) Letter No. 8178/OMC/F&E/2024, dt.17.05.2024 of OMC Ltd.
(ii) This office Memo No. 3698/3WL(Lease)/2024 dt 06.08.2024.
(iii) Memo No. 22874 dt. 14.11.2024 of the Chief Conservator of Forest (Nodal), O/o the PCCF & HoFF, Odisha, Bhubaneswar.

Sir,

In inviting a kind reference to the Letter Nos. cited above on the captioned subject, this is to inform you that, the Chief Conservator of Forest (Nodal), O/o the Principal Chief Conservator of Forests & HoFF, Odisha, Bhubaneswar vide his letter under reference has instructed the undersigned to recalculate the amount deposited in CAMPA account due to surrender of 98.731 ha of forest land in respect of diversion of 106.016 ha forest land as under:

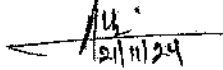
Rs.9,84,34,807/- (Rs 10,08,93,807.00 - Rs 24,59,000.00).

Out of the above amount, an amount of Rs. 4,55,65,515/- (Rupees Four crore fifty-five lakh sixty-five thousand five hundred fifteen) only has been adjusted towards Site Specific Wildlife Conservation Plan approved for extension of Daitrai Railway line leaving a balance amount of Rs. 5,28,69,292/- (Rupees five crore twenty-eight lakh sixty-nine thousand two hundred ninety-two) only unadjusted.

In this regard, this office Memo No. under reference stands modified to the above extent and Rs. 5,28,69,292/- (Rupees five crore twenty-eight lakh sixty-nine thousand two hundred ninety-two) only may be adjusted towards compensatory levies by your good office.

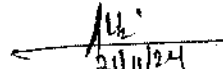
This is for favour of your kind information and necessary action.

Yours faithfully,


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.


Memo No. 5548 /Date 21/11/2024 /

Copy forwarded to the Chief Conservator of Forest (Nodal),
O/o the Principal Chief Conservator of Forests & HoFF, Odisha, Bhubaneswar
for favour of kind information and necessary action with reference to his Memo
No. 22873/9F(MG)-70/2021 dt. 14.11.2024.


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.

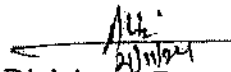
Memo No. 5549 /Date 21/11/2024 /

Copy forwarded to the Field Director, Similipal Tiger Reserve-cum-
Regional Chief Conservator of Forests, Baripada Circle, Baripada for favour of
kind information and necessary action.


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.

Memo No. 5550 /Date 21/11/2024 /

Copy forwarded to the Chief Vigilance Officer and Land Officer,
Authorized Signatory of OMC for information and necessary action.


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfo.keonjhar@odisha.gov.in

Memo No. 9699 /6F-Mining-19/2024
Dated, Keonjhar the 28th November, 2024

To

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

Sub: Proposal for Diversion of 22.697 ha of Sabik Kisam Forest Land within the total mining lease area of 456.037 ha of Jilling Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District-regarding.

Ref: 1. Your Memo No.22874 dated 14.11.2024, No.18551 dated 12.09.2024 & 17325 dated 28.08.2024.
2. Memo No.5547 dated 21.11.2024 of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

This is to inform you that, during auction of Jilling-Longlota Mines, M/s OMC Ltd had deposited the lump sum amount @ 7.50 lakh per ha over the forest area involved in mining lease to the tune of Rs. 27,71,46,750/- owing to Ministry's guidelines dated 31.03.2020.

As per your memo No.17325 dated 28.08.2024 the aforesaid amount will be adjusted towards actual compensatory levies payable at the time of approval relating to the project.

Further, it is mentioned vide your memo No.22874 dated 14.11.2024 to adjust the demanded amount of this division from the unadjusted amount, of the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

Accordingly, the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur has intimated vide his memo No. 5547 dated 21.11.2024 that a sum of Rs.5,28,69,292/- are remained unadjusted, which may be adjusted towards the demanded amount of this division.


As such, the compensatory levies need to be adjusted from the above lump sum amount and unadjusted amount of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur, the details of which is depicted below:-

Sl. No.	Particulars	Amount in Rupees
1	Compensatory Afforestation against Pre-80 broken up forest land.	Rs.23,92,62,400/-
2	CA over (22.697 ha) + Gap planting.	Rs.1,87,30,000/-
3	NPV (as demanded vide this office letter No 8445 dated 17.10.2024).	Rs.2,44,30,067/-
4	Site Specific Wildlife Conservation Plan (as demanded vide this	Rs.3,23,58,000/-

	office letter No 5821 dated 06.07.2024).	
	Total Compensatory levies	Rs. 31,47,80,467/-
5	Lump sum amount deposited by the UA	Rs.27,71,46,750/-
	Balance Amount to be paid by the User Agency	Rs. 3,76,33,717/-
6	Amount adjusted from the un-adjusted amount of Rs.5,28,69,292/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.	Rs. 3,76,33,717/-
	Balance amount to be paid	Nil

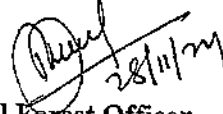
After adjustment of Rs. 3,76,33,717/-, a sum of Rs. 1,52,35,575/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur is still remain un-adjusted.

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


Divisional Forest Officer,
Keonjhar Division.

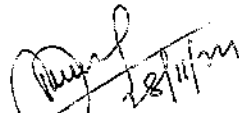
Memo No. 9700 /Dated 28.11.2024

Copy submitted to the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur for favour of kind information and necessary action with reference to his memo No. 5547 dated 21.11.2024.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9701 /Dated 28.11.2024

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9702 /Dated 28.11.2024

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Details of deposits						
Sl. No.	Type of deposit (NPV/CA/WWMP/ 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	Online Payment	SBINR12021011106076046	Rs. 27,71,46,750/-	11.01.2021	A/c No. 10872145031 State Bank of India, Bhubaneswar Main Branch 150825310040989, IFSC Code: CORP0000371, Corporation Bank, Lodhi Complex Branch, Lodhi Road, New Delhi.
ii)	Penel NPV	Online payment	UBINJ24163671690	Rs. 11,62,06,277/-	11.06.2024	A/c No. 105911011000001 of Union Bank of India, OMC Campus Branch, Bhubaneswar 1508258142115320, IFSC Code: UBIN0996335 in Union Bank of India, FCS Centre, 21/1, III Floor, Jaitta Towers, Mission Road, Bengaluru-560027.
iii)	NPV	-	-	Rs. 2,44,30,067/-	-	<p>The amount has been adjusted from the lump sum amount of Rs. 27,71,46,750/- given by OMC on dt 11.01.2021 as per MoEF & CC guideline vide F.No. 11-97/2018-FC dt. 31.03.2020 and Rs. 3,76,33,717/- from the compensatory levies already paid against Daitari Conveyor Corridor Proposal (FP/OR/MIN/10335/2015) due to acceptance of its surrender by MoEF&CC vide F No. 8-27/2017FC, dt. 22.12.2023.</p> <p>(The above adjustment has been done vide Memo. No. 22874, dt. 14.11.2024 of PCCF (FD & NO, FC Act), vide Memo No. 5547, dt. 21.11.2024 of DFO, Keonjhar Wildlife Division, Anandapur and vide Memo No. 9699, dt. 28.11.2024 of DFO, Keonjhar.)</p>
iv)	Compensatory Afforestation	-	-	Rs. 1,40,48,800/-	-	
v)	Compensatory Afforestation Pre-80 against broken up forest land	-	-	Rs. 23,92,62,400/-	-	
vi)	SSWLCP	-	-	Rs. 3,23,58,000.00	-	
vii)	Scheme for Gap plantation and SMC activities within 100 m from outer perimeter of the ML.	-	-	Rs. 46,81,200/-	-	

Date:
Place: Keonjhar

Divisional Forest Officer
Keonjhar Forest Division

Principal Chief Conservator of Forests (FD & NO, FC Act)
Bhubaneswar

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 Odisha Mining Corporation Limited (A Govt. of Odisha Undertaking).
4.	Nature and category of proposal	Mining
5.	Proposal number	FP/OR/MIN/142115/2021 (Jiling Langalola Iron Ore Mine)
6.	Extent of forest area involved	22.697 Hectare
7.	Whether original or extension	Extension
8.	If extension of lease, please clarify if proposal involves additional forest area and if so, specify	MoEF & CC vide letter No.8-49/98-FC(pt.) dt 08.10.2014 approved 342.602 ha and balance 22.697 ha is under stage-I FC compliance.
9.	Date of 1 st Stage clearance	Dt 09.02.2024
10.	Extent of CAMPA charges, head wise viz.:	
	(a) Compensatory Afforestation	Rs. 1,40,48,800/-
	(b) Additional Compensatory Afforestation	-
	(c) Penal Compensatory Afforestation	-
	(d) Catchment Area Treatment	Nil
	(e) Wildlife Management Plan	
	i) Site Specific Wildlife Conservation Plan	Rs. 3,23,58,000/-
	ii) Regional Wildlife Management Plan	-
	(f) Additional charges for diversion of area falling under notified/protected areas	Nil
	(g) Net Present Value	Rs. 2,44,30,067/- Rs.27,71,46,750/-
	(h) Any other charges/levies (Please specify)	Rs.11,62,06,277/-
	i) Penal NPV	
	ii) Interest on belated payment of NPV	-
	iii) Safety Zone	-
	iv) 1.5 times Safety Zone	-
	v) Scheme on gap planting and SMC measures in degraded open forest located within 100m from outer perimeter of ML.	Rs.46,81,200/-
	vi) SMC measures in and around 10 km radius of the ML.	-
	vii) Compensatory afforestation against pre-80 broken up forest land	Rs.23,92,62,400/-
11.	Whether payment made through challan or otherwise. In case of online payment, details of challan.	



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

Memo No. 1824 /3F-817/2024 Date: 30.04.2024

To

The Divisional Forest Officer,
Keonjhar Forest Division.

Sub: Proposal for seeking prior approval of the Central Government under Section 2(1)(ii) of the Van (Sanrakshan Evam Samverdhan) Adhiniyam, 1980 in favour of M/s Odisha Mining Corporation Ltd. for non-forestry use of 22.697 ha of forest land of Jilling-Langalota Iron Ore Block within the total mining lease area of 456.037 ha in Keonjhar District of M/s OMC Ltd of Keonjhar District.

X-sub: Submission of Schemes in respect of Jilling-Langalota Iron Ore of M/s OMC Ltd.

Ref:- 1 F.No. 8-96/1998-FC (PT) Dtd 09.02.2024 of GoI, MoEF & CC, Govt. of India.
2. Your Memo No. 3351 Dtd.23.04.2024.

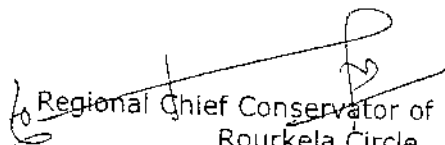
The following schemes prepared by you at the current wage rate of Rs.450.00 per man day and submitted vide your Memo under reference in compliance with Conditions of the Stage-I approval accorded vide Letter F.No. 8-96/1998-FC (PT) Dtd 09.02.2024 of MoEF & CC, Govt. of India, in respect of the above diversion proposal are hereby technically approved.

Sl. No.	Details of the Scheme	Condition No. of the Scheme	Technical approval accorded by the RCCF, Rourkela
1	Scheme for Gap plantation and Soil & Moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40), if any, located in the area within 100m. from outer perimeter of the mining lease to be undertaken by the User Agency.	No.11	Rs.46,81,200/-
2	Scheme for appropriate mitigative measures to minimize soil erosion and choking of streams.	No.10 (i)	Rs.69,75,900/-
3	Scheme for Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion;	No.10 (ii)	Rs. 2,80,49,900/-
4	Scheme for Construction of check dams, retention/toe walls to arrest sliding down of the excavated material along the contour.	No.10 (iii)	Rs.3,39,80,100/-
5	Scheme for Stabilization of overburden dumps by appropriate grading/ benching so as to ensure that the angles of repose at any given place is less than 28° and;	No.10 (iv)	Rs.1,10,31,600/-
6	Scheme for demarcation, fencing, protection and afforestation of the safety zone area	No.13 (i, ii, iii & iv)	Rs.38,50,700/-

7	Scheme for Top Soil Management.	No.10(v)	With no Budgetary Provision.
8	Scheme for de-siltation of the village tanks and other water bodies located within five km from the mine lease boundary so as to mitigate the impact of siltation of such tanks / water bodies.	No.12	Rs.53,81,300/-

The technically approved schemes are returned herewith in triplicate for taking necessary action at your end.

Encl.:- As above.


Regional Chief Conservator of Forests,
Rourkela Circle.

Memo No.

Date:

Copy forwarded to the Principal Chief Conservator of Forests (Forest Diversion & Nodal Officer, FC Act), O/o the Principal Chief Conservator of Forests, Odisha for favour of kind information and necessary action with reference to Memo No.3353 Dtd.23.04.2024 of DFO, Keonjhar Division.


Regional Chief Conservator of Forests,
Rourkela Circle.

SCHEME FOR
APPROPRIATE MITIGATIVE MEASURES TO
MINIMIZE SOIL EROSION
AND
CHOKING OF STREAMS

AT
JILLING-LANGALOTA IRON ORE MINES
UNDER KEONJHAR FOREST DIVISION
OF

M/S ODISHA MINING CORPORATION LTD.
(A GOVT.OF ODISHA UNDERTAKING)
OMC HOUSE, BHUBANESWAR-751001

(As per condition No.10 (i) of the stage-I Forest Clearance granted by MoEF &
CC, Govt. of India vide F.No.8-49/1998-FC (PT 1) dt 09.02.2024)

(ON ONE TIME COST NORM BASIS)

SCHEME ON APPROPRIATE MITIGATIVE MEASURES TO MINIMIZE SOIL EROSION AND CHOKING OF STREAMS

1. INTRODUCTION.

Stage-I Forest Clearance for diversion of 22.697 ha of forest land for non-forest purpose for Jilling-Longalotta Iron Ore mines has been accorded vide F.No. 8-49/1998-FC (PT. I), Dt. 09.02.2024 of Ministry of Environment, Forests & Climate Change subject to fulfilment of 42 conditions. The condition No. 10 (i) is read as under:

"10 (i) Mitigation measures, to minimize soil erosion and choking of stream, shall be implemented within a period of two years with effect from the date of issue of order of diversion of forest land, in accordance with the approved Plan in consultation with the State Forest Department."

In compliance with this condition, a comprehensive scheme is prepared for implementation of the same within the ML area. The scheme has been prepared as per the current wage rate issued by the Labour Commissioner, Odisha vide Gazette Notification dt. 13.03.2024, Rs. 450/- per Manday.

2. LOCATION OF THE ML AREA

Jilling-Langalota Iron Ore Mines of M/s Odisha Mining Corporation (OMC) Limited, a State Government Undertaking, is a mining project for exploitation of iron ore. The mining lease (ML) area over 456.100 Hectares (ha) is confined within the Latitudes: 21° 56' 37.5297" to 21° 58' 53.4158" N and longitude: 85° 25' 08.8832" to 85° 26' 37.1370" E in the Survey of India Topo Sheets bearing No. 73 G/5 & 73 F/8. It is located at a distance of 08 KM from Joda town by Joda-Bamebari Express Highway. The nearest railhead is located at Joruli at a distance of 1.0 km from the ML area on Tata-Chaibasa-Banspani-Keonjhar track of South-Eastern Railway. The district Head Quarter Keonjhar is at a distance of 52 km via Kalimatti-Palasponga Express Highway. The Air strip at Tanto is at a distance of 15 km from the ML area. The area exhibits an undulated topography with varying elevations from 540m to 900 m above Mean Sea Level (MSL).

The mining and ancillary activities will convert this area prone to intensive soil erosion by creating reels and gullies on mined out pit benches, on the surface of OB dump, on the shoulder of haul roads, on the surface of the surface-soil deposit and on the bank of the natural streams. Such gullies eventually may widen and occupy large tract of the slope and cause heavy soil loss and flooding the valley bottom with heavy siltation. This results the virgin forest area prone to soil erosion. During rains, the exposed soil will not allow percolation of rainwater to charge the groundwater table. Consequently the seasonal streams will be dried up. Therefore, it is essential to treat the area with strategic soil and moisture conservation measures to mitigate the adverse impact of mining.

3. DRAINAGE

Dalko Nala is the only seasonal nala fall in the lease area and control the drainage system of the area. Baitarani river flows at a distance of 1.0 km from the lease area. Dalko nala flows from west to east.

FACTORS RESPONSIBLE FOR SOIL EROSION AND CHOKING OF STREAMS

The mining activities, sub-grade dumps and overburden dumps are the major factors impacting adversely to any drainage system in the mining areas. The forms of erosion observed in this region include mainly rill and gully erosion. The storm water runoffs from the hills, mine faces, sub-grade dumps and OB dump slope areas carry substantial amounts of solids in the lower order streamlets and choke the higher order streams. These lower order streamlets and gullies have high erosion capacity due to steep gradient and transportation of rock fragments with high velocity of the stream and deposition of same in the connecting high order streams due to velocity drop. Streams can also erode by undercutting their banks resulting in mass-wasting processes like slumps or slides. When the undercut material falls into the stream, the fragments are transported and deposited in the stream bed. The other mode of sediment transportation is very nominal.

4. OBJECTIVE OF THE SCHEME:

The objectives of the proposed scheme are as follows:

1. To comply condition No. 10 (i) of the Stage-I approval issued by MoEF & CC.
2. Prevention of erosion of loose materials from OB dump & erosion of top soil in non-working area which will be chance to choking the natural streams as well as the effect in agriculture.
3. Prevention of obstruction of natural water sources.
4. Proper Management of overburden materials so as to prevent siltation in the streams.
5. Prevention of overflow of eroded soils from the mining areas to the cultivable lands, natural streams and inhabitations.
6. Prevention of overflow of eroded soils from the mining areas to the cultivable lands, natural streams and inhabitations.

5. PROPOSED METHODOLOGY

To achieve the above objectives it has been proposed to take up both biological and structural works for soil and water conservation. The vegetative measures are to be adopted mostly in the upper reaches & around O.B. dumping sites whereas the structural works are suggested in the lower reaches such as in the drain & critical points around O.B. dumps. As per the current practice, check dams are constructed across the contour seasonal streams arising from the up-slope areas to arrest the sediment load to prevent choking of streams followed by de-silting before monsoon. The following activities are proposed to be taken up to mitigate soil erosion and choking of streams:

1. There is only one seasonal stream inside the M.L boundary. However, due to mining activities in future, there is chance of heavy run-off with silts and sediments during monsoon. To minimize the hazard as well as to reduce the flow velocity of water flown from overburden dump, mining pits, stock piles, haul roads as well as areas clear of vegetation, check dams are to be constructed at suitable location.

2. Periodic Sediment/silt removal/De-silting jobs will be undertaken in those proposed check dam points as well as from garland drains and subsequently plantation will be carried out on these de-silted materials.

3. Along with the above sedimentation control measures erosion from O.B. dump slope areas will be controlled by providing retaining wall, garland drain, loose boulders structures, settling tanks etc. The main purpose of the works is to control soil erosion from OB dump and minerals stock piles etc. and prevent chocking of natural stream flow.

6. MEASURES PROPOSED

A. Biological Measures

a) Plantation

Soil erosion and sediment control in areas covered with forests are minimum. As the area is covered with vegetation, there is no scope of taking up of plantation within ML area.

b) Grass Seeding

The area will be back-filled for reclamation, the overburden dump area will used for grass seeding.

B. Structural Measures

Vegetative means of erosion control are the most feasible and economic measures. But there is no scope for such work in the mine. Structural measures serve as supplementary to vegetative measures. The objective behind building mechanical structures is to reduce the degree and length of the slope, retarding runoff & consequently, reducing soil erosion.

a) **Construction of Loose Boulder Structures:** The User Agency has planned to construct 1000.00 RMT of loose boulder structure across the proposed garland drain. 1000.00 KMT of Loose Boulder Check Dams will be constructed within the garland drain and across seasonal stream and eroded areas. These loose boulder structure will help in stabilization of silt & sediment as well as prevention of soil erosion & enrichment of vegetation & greenery development.

b) **Construction of Garland drain:** A shallow trench (2.0 m wide x 1 m deep) for draining surface water before it release to the vacant land or natural water course. 9200.00 RMT of garland drain will be constructed around Dump. The work has been included in a separate scheme prepared as per condition no.10 (iii) stipulated in Stage-I approval. Hence extra fund is not required for the work.

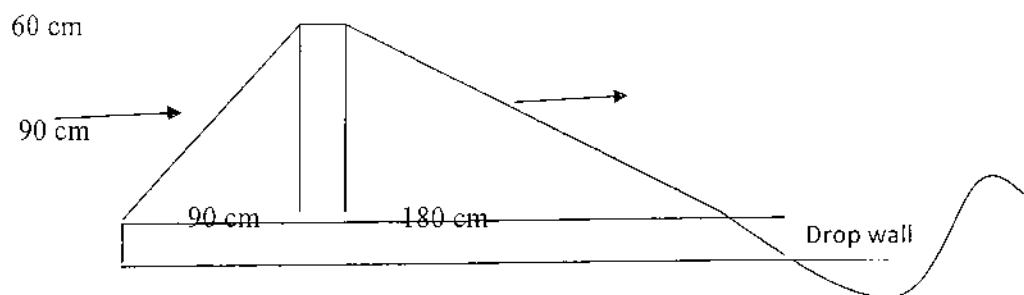
c) **Terracing of OB Dump Slope:** It is proposed to construct berm & terraces with breadth of 20 m on the extended portion of O.B. dump during lease period. Considering the volume of OB materials & the area earmarked for dumping. The slope of individual terrace should be within the permissible range considering the angle of repose of the soil and space available, thereby maintaining the angle of repose to be around 28° . The terracing will be done continuously through the internal resources by deploying the operating mining equipment along with progress of mine. Hence no separate fund for this work is provided.

c) **Retaining Walls/Toe Walls around OB Dumps:** A retaining wall is a structure designed and constructed to resist the lateral pressure of soil when there is a designed change in ground elevation that exceeds the angle of repose of the soil. The proposed Retaining walls will be constructed around the dumps. The work has been included in a separate scheme prepared as per condition no. 10 (iii) stipulated in Stage-I approval. Hence extra fund is not required for the work in this scheme.

7. **Execution of work:** Only Loose Boulder Check Dams will be constructed over a total length of 1000 RMT.

- Series of check dams should be constructed on the gullies. Bottom level of Check Dam situated on higher slope and top level of the Check Dam located downstream should be same.
- Check Dam or any Soil Conservation Measure should start from the top where the erosion starts and move downwards.
- Check Dam should be constructed where the gully or nala is narrowest and the bank is strong. The tendency of constructing big check dams at wide and accessible points should be avoided.
- For construction of loose boulder check dams as big stones as possible to fit the design should be used and small stones may be used to fill interstices to make the structure stable.
- If possible the construction of loose boulder check dams should be done before plantation is taken up in the area to prevent damage of planted seedlings.

The following simple design should be followed for loose boulder check dams.



Foundation and apron should be 25 cm thick.

Height of check dam above the foundation should be 90 cm or height of the bank whichever is higher. Uphill side width should be same as that of height of the dam.

Downhill side width should be twice that of height of the dam.

Uphill side apron should be 30 cm and downhill side apron should be 90 cm.

Spillway of 1 mtr long and 30 cm deep may be provide on top of check dam for flowing of excess water.

Volume of stone work will be Cross section of check dam is sq.mtr x length of check dam in mtr.

For example, as per the drawing shown above, the volume calculation for a 2.5 mtr long check dam will be:

Cross section: $4.5 \text{ mtr} \times 0.25 \text{ mtr} = 1.125 \text{ sq.mtr}$

Foundation: $(3.3\text{m} \times 0.6 \text{ m})/2 \times 0.9\text{m} = 1.755 \text{ sq.mtr}$

Super structure $1.755 \text{ sq. mtr} + 1.125 \text{ sq.mtr} = 2.88 \text{ sq.mtr}$

Volume = $2.88 \text{ sq.mtr} \times 2.5 \text{ mtr} = 7.2 \text{ cu.m}$

Volume of stone for a 2.5 mtr long loose boulder check dam is 7.2 cu.m.

Volume of check dams of different lengths can be calculated accordingly.

Estimate of a standard loose boulder check dam is furnished at **Annexure-I**.

Top width of the check dam will be 60 cm

The bank should be dressed vertically and base area should be level. The earth should be kept for filling interstices of the check dam.

The length of check dam should be 50 cm longer than the width of the nala so that 25 cm on each side should be dovetailed into the bank.

Cross-section of the proposed dam should be marked on the vertical nala bank and the stones should be set properly.

8. INSPECTION, MONITORING AND EVALUATION

For successful implementation of the above Mitigative measures, intensive inspection and technical guidance from concerned technical wing is required. Sufficient fuel/ conveyance charges for technical experts shall be provided by the user agency for proper execution of these programmes. Budgetary provision of 15% of the total project cost has been earmarked on this score.

9. EXECUTING AGENCY

The works in the present Scheme shall be executed by the User Agency having specialized departments headed by qualified persons with outsourced man and machinery. To facilitate this, the user agency shall establish its own executing and supervision cells along with required infrastructural facilities. In order to maintain the quality of work, in-house supervision through competent personnel shall be provided. The entire work shall be carried out in coordination with the Forest Department.

10. REQUIREMENT OF FUNDS

The total cost of the implementation of mitigative measures will be **Rs 69,75,900.00 (Rupees sixty nine lakh seventy five thousand nine hundred) only** for implementation of the above mitigation

measures, the above expenditure will be made over the next three years period. Therefore, budget provision will be kept by the user agency for implementation of the above mitigation measures over a period of next ten years. This budget will be subject to increase in amount considering the increase in materials and labour charges. The tentative expenditure planned for the implementation of mitigative measures is given in the following table:-

FINANCIAL FORECAST

Sl. No.	Particulars of interventions	Quantity	Financial involvement (Rs)
1	Loose Boulder Check Dams @ Rs 5055/- per running mtr	1000 running mtr	50,55,000.00
	Inspection, monitoring and evaluation @ 15% of the total project cost.		7,58,250.00
	Total		58,13,250.00
	Escalation cost 20%		11,62,650.00
	Grand Total		69,75,900.00

(Rupees sixty nine lakh seventy five thousand nine hundred) only

Technically Approved

~~Regional~~ Chief Conservator of Forests
Rourkela Circle

Divisional Forest Officer
Keonjhar Forest Division

Estimate for Loose Boulder Check Dam of length 2.5 mtr

Foundation and apron 25 cm thick.

Top width 60 cm

Height of check dam above the foundation is 90 cm.

Uphill side width 90 cm.

Downhill side width should be 180 cm.

Uphill side apron 30 cm and downhill side apron 90 cm.

Analysis of Rate

Particulars of work	No./ Quantity	Rate	Amount
Earth work in hard or gravelly soil within 50m. Initial lead and 1.5m. Initial lift including rough dressing of clods to maximum 5 cm. to 7 cm and laying in layers not exceeding 0.3 m. in depth (per 100 cum.)	43	450.00	19,350.00
Mulia			387.00
2% sundries and T & P etc.	Total		19737.00
Rough stone dry packing in aprons and revetments with hard granite stones (15 to 30 cm size) per cum			
Granite broken stone 1 cum.	1	950.00	950.00
Mason (Special)	0.17	550.00	93.50
Stone packer	0.35	500.00	175.00
Mulia	1.04	450.00	468.00
2% sundries, T & P etc.			33.73
	Total		1720.23
Estimate for construction of Loose Boulder Check Dam (Length of Loose Boulder Check Dam 2.5 Mtr)			
Particulars of work	Volume	Rate in Rupees	Total amount in Rupees
Earth work in hard or gravelly soil within 50m. Initial lead and 1.5m. Initial lift including rough dressing of clods to maximum 5 cm. to 7 cm and laying in layers not exceeding 0.3 m. in depth Dressing the side of banks and foundation on L.S	L.S	250.00	250.00
Rough stone dry packing in aprons and revetments with hard granite stones (15 to 30 cm size) per cum Rough stone dry packing in aprons and revetments with hard granite stones (15 to 30 cm size) per cum			
Foundation 4.5 mtr x 0.25 mtr = 1.125 sq.m Super structure (3.3mx0.6m)/2x 0.9m=1.755 sq.m 1.755 sq. mtr + 1.125 sq.mtr = 2.88 sq.mtr Volume = 2.88 sq.mtr x 2.5 mtr = 7.2 cu.m	7.2 cu.m	1720.23	12385.66
Total			12635.66

Cost per running metre of L.B.C.D of 90 cm height = Rs 12635.66/2.5= Rs.5054.26 or say **Rs.5055/-**

**MAP SHOWING THE CONSTRUCTION OF APPROPRIATE MITIGATE MEASURES TO MINIMIZE SOIL EROSION
& CHOCKING OF STREAMS WITHIN THE JILLING LANGALOTA IRON ORE MINES OF OMC LTD**

APPAHATU DUMP-A



APPAHATU DUMP-B



JILLING WASTE DUMP



APPAHATU DUMP-A

TOTAL WASTE DUMP AREA=9.808 Ha
LENGTH OF GARLAND DRAIN=1974.35 Mtr.
LENGTH OF RETAINING WALL=1355.350 M

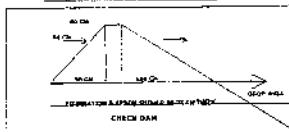
APPAHATU DUMP-B

TOTAL WASTE DUMP AREA=9.597 Ha
LENGTH OF GARLAND DRAIN=2266.403 Mtr.
LENGTH OF RETAINING WALL=1355.350 M

JILLING WASTE DUMP

TOTAL WASTE DUMP AREA=31.808 Ha
LENGTH OF GARLAND DRAIN=4959.300 Mtr.
LENGTH OF RETAINING WALL=27701.693 M

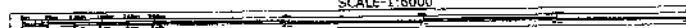
SCHEMATIC CROSS SECTIONAL VIEW



INDEX

MINING LEASE BOUNDARY	<input type="checkbox"/>
WASTE DUMP TOP	<input type="checkbox"/>
WASTE DUMP BOTTOM	<input type="checkbox"/>
EXISTING NALA/WATER	<input type="checkbox"/>
BODIES WITHIN ML	<input type="checkbox"/>
PROPOSED GARLAND DRAIN	<input type="checkbox"/>
PROPOSED RETAINING WALL	<input type="checkbox"/>
PROPOSED GUARD DRAIN	<input type="checkbox"/>
PROPOSED ROAD IN DUMP	<input type="checkbox"/>
PROPOSED CHECK DAM	<input type="checkbox"/>

SCALE-1:6000



SCHEME FOR
PLANTING ADEQUATE DROUGHT HARDY
PLANT SPECIES
AND
SOWING OF SEEDS IN APPROPRIATE AREA
WITHIN THE MINING LEASE AREA TO ARREST
SOIL EROSION

AT

JILLING-LONGALOTA IRON ORE MINES
UNDER KEONJHAR FOREST DIVISION

OF

M/S ODISHA MINING CORPORATION LTD.
(A GOVT.OF ODISHA UNDERTAKING)
OMC HOUSE, BHUBANESWAR-751001

(As per condition No.10 (ii) of the stage-I Forest Clearance granted by MoEF & CC, Govt. of
India vide F. No. 8-49/1998-FC (PT 1) dt 09.02.2024)

(ON ONE TIME COST NORM BASIS)

**SCHEME FOR
PLANTING ADEQUATE DROUGHT HARDY PLANT SPECIES AND SOWING OF
SEEDS IN APPROPRIATE AREA WITHIN THE MINING LEASE AREA TO
ARREST SOIL EROSION**

CHAPTER- I

BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL

INTRODUCTION:-

Stage-I approval for diversion of 22.697 ha of forest land for non-forest purpose for Jilling-Longalotta Iron Ore mine has been accorded vide F.No.8-49/1998-FC (PT1) Dated 09.02.2024 of MoEF & CC, subject to fulfillment of certain conditions. The condition No. 10 (ii) of the Stage-I approval reads as under:

"10 (ii). Planting of adequate drought hardy plant species and sowing of seeds, in the appropriate area within the mining lease to arrest soil erosion in accordance with the approved scheme".

A total of 11.59 MCum of wastes will be generated from entire Jilling Langalota Iron Ore Mines to conceptual stage including rehandling quantity of 3 million cum from Langalotta waste dump. The waste shall be dumped during plan period in the backfill of Jilling-Gangoria Block and Appahatu waste dump A & Appahatu waste dump B.

Out of the total 11.59 MCum of waste generated upto conceptual, 20% of these materials proposed dump location during the conceptual period. Till conceptual period around 76.551 ha land will be covered under waste dump. Plantation and coir matting has been carried out in many part of the dead benches of waste dump. In this context, plantation of draught hardy species and sowing of seeds over has been proposed over balance 44.004 ha of OB dump area.

The details are given as under:

Sl. No.	Name of the OB dump	Total area	Area covered under drain and road for maintenance of plantation	Area proposed for plantation
1	Appahatu Dump-A	5.806	0.676	5.130
2	Appahatu Dump-B	9.597	0.782	8.815
3	Jilling Waste Dump	31.800	1.741	30.059
Total Area		47.203	3.199	44.004

Plantation will be taken up over 44.004 ha in Block plantation model @ 1600 plants/Ha. The cost estimate for this plantation calculated as per cost norm for Block model @ 1600 plants per

hectare is enclosed as **Annexure-I**. Watering of plantation area will be carried out with solar system with Bore well fitted with Drip system. Cost norm for the same is enclosed as **Annexure-II**. Generally OB dump area is prone to soil erosion. Hence sowing of seeds will be carried out over the entire area of 44.004 ha proposed for plantation. The financial outlay for the sowing of seeds is enclosed as **Annexure-III**.

LOCATION OF THE ML AREA:

Jilling-Longalatta iron Ore Mines of M/s Odisha Mining Corporation (OMC) Limited, a State Government Undertaking, is a mining project for exploitation of iron ore over 358.258 ha. The mining lease area is confined within the Latitudes: 21° 59' 21.991" to 22° 00' 00.984" N and longitude 85° 17' 02.375" to 85° 18' 59.140" E in the Survey of India Topo Sheets bearing No. F 45 N 5 and F 45 H 8 on 1:50,000 scale. The key plan showing Jilling-Longalatta Iron Ore Mines is enclosed as **Plate No. I**. This area is approachable from Barbil covering a distance of 20 km by Barbil-Rourkela National Highway No. 215. This area is also approachable from Koira Town of Sundergarh District which is on NH No. 215 at a distance of 13 km. The area exhibits an undulated topography with varying elevations from 590 m to 500 m above Mean Sea Level (MSL).

SOIL TYPE:

Soil type in the study area varies widely from hard rock to sandy loam. The top soil in the area is scanty. Whatever top soil is available is rocky in nature. The pH of the soil is normal ranging from 6.20 to 8.20. Low hills and hill slopes are extensively lateritized and consist of lateritic profile of 5 to 10m. The lateritic area is rich in Iron and very often gritty in nature. Bushy vegetation is observed on this soil type.

CLIMATE:

The area is characterized by extreme climate with very hot (42°C-45°C) summer and very cold winter (5°C) winter. It experiences tropical and humid climate which shows three distinct seasons i.e. summer, rainy and winter. The summer is very hot and dry starting from March and continues till end of May or early June. The rainy season lasts from early June to end of September. October and November are the post monsoon months followed by a cold winter which lasts till end of February. Annual rainfall varies from 1100 mm to 1800 mm. About 75% of it has been distributed during the South west monsoon i.e. June to September.

EXISTING VEGETATION

Majority area of mining lease is covered by open scrub. There is natural vegetation on the area with dry deciduous species like Sal, Kurum, Kangara, Asan, Dhaura, Kendu, Jamu, Mango etc. with canopy density 0.4. The buffer zone (10Km radius) includes part of Sidhamatha Reserve

Forest area of Keonjhar Forest division. But there is absence of any vegetation in the area proposed for plantation of drought hardy species and sowing of seeds.

CHAPTER- II

AGENCY RESPONSIBLE FOR PLANTATION OVER 44.004 HA

IV(1)- AGENCY RESPONSIBLE FOR EXECUTION OF SCHEME

The works in the present Scheme shall be executed by the User Agency having specialized departments headed by qualified persons with outsourced man and machinery. To facilitate this, the user agency shall establish its own executing and supervision cells along with required infrastructural facilities. In order to maintain the quality of work, in-house supervision through competent personnel shall be provided. The entire work shall be carried out in coordination with the Forest Department.

For successful implementation of the above mitigative measures, intensive inspection and technical guidance from concerned technical wing is required. Sufficient fuel/ conveyance charges for technical experts shall be provided by the user agency for proper execution of these programmes.

CHAPTER- III

DETAILS OF WORK SCHEDULE PROPOSED OVER 44.004 HA

A. PLANTING PLAN

Planting Plan reflects the species specific treatment of the identified site. Choice of species is based on the geo-morphology of the site, soil-texture, structure, fertility and depth, proneness of the site to water logging etc

Species to be planted:-

1. *Adina cardifolia* (Kuruma)
3. *Anogeissu slatifolia* (Dhaura)
4. *Dalbergia sissoo* (Sissoo)
5. *Azadirrachta indica* (Neem)
6. *Gmelina arborea* (Gambar)
7. *Terminalia chebula* (Harida)
8. *Ficus religiosa* (Pipal)
9. *Ficus benghalensis* (Bara)

B.PRE-PLANTING OPERATION

B(I)-RAISING OF PLANTATION STOCK- NURSERY-

Nursery will be raised including seedlings for 10% causality replacement i.e.1760 seedlings per hectare will be raised.

B(II)-SURVEY, DEMARCATION & PILLAR POSTING, GPS READING WITH MAPPING-

The planting area has been surveyed and has been demarcated. A map has been prepared along with pillar numbers reflected in the map.

C. PLANTING OPERATION

Planting of seedlings will be taken up in the month of July. The polythene covering the ball of earth will be carefully removed before planting. Care will be taken to see that the ball of earth is not broken while doing so. The seedling with the ball of earth will then be placed firmly in the pit and buried at such a depth that the root collar is well below the surface of the soil. The soil around the plant will be well compacted with the heel as a final step so that there is a proper bond between the plant and the surrounding soil. The earth close to the collar will be slightly elevated so that rain water does not accumulate very close to the plant.

D. POST PLANTING OPERATION

D(1)-CASUALTY REPLACEMENT

The entire area will be gone over in the same order as plantation was carried out and casualties, if any, will be replaced as soon as the main plantation operation is over.

D(2)-WEEDING AND SOIL WORKING

Regular and efficient weeding will start immediately in the month of August- September.

D(3)-MANURING AND INSECTICIDE APPLICATION

On degraded sites urban compost or farmyard manure, wherever available, will be added to the soil while refilling the pits. As regards artificial fertilizers, the minerals required and dosage will be applied in the month August to September as per the schedule and dosage provided in the Cost Norm.

D(4)-PROTECTION AGAINST FIRE AND GRAZING

Fire line tracing will be ensured to protect the plantation from fire and watch & ward will be provided for protecting the plantation & protect the plant site from grazing by domestic animals. Also bamboo twig fencing will be carried around the plantation area.

CHAPTER-IV

DETAILS OF WORK SCHEDULE PROPOSED FOR SOWING OF SEEDS

OVER 44.004 HA

In non-mineralized area there is existence of very thin layers of top soil say 5 cm to 10 cm. Over 44.004 ha of land, the seeds of following hardy species will be broad casted through earth ball method for better regeneration and smooth to stabilize the soil erosion. Earth balling is done manually to ensure tree survivability and minimal root ball damage. This is a better procedure than using a hydraulic spade.

The map showing the plantation area and seed showing area is enclosed as Plate No. II.

CHAPTER-V

REQUIREMENT OF FUNDS:

For implementation of all prescriptions outlined above, Rs. 2,80,49,900.00 (Rupees Two crore eight lakh forty nine thousand nine hundred) only will be required as detailed below:

1.	Drought Hardy plantation over 44.004 ha @ Rs. 358998/- per Ha. Expenditure for 44.004 ha (44.004 x 358998/-) = Rs. 1,57,97,347.99	Rs	1,57,97,347.99
2	Watering of plantation area with solar system with Bore well fitted with Drip system @ Rs. 234221/- per Ha. Expenditure for 44.004 ha (44.004 x 234221/-) = Rs. 1,03,06,660.88	Rs.	1,03,06,660.88
	Sub-total:	Rs	2,61,04,008.87
3	Sowing of seeds over 44.004 ha on L.S. (Rs 36,850/- per ha)	Rs	16,21,547.40
	Add 20% for escalation	Rs.	3,24,309.48
	Sub-total:	Rs.	19,45,856.88
	TOTAL PLANTATION COST	Rs	2,80,49,865.75 Or say 2,80,49,900.00

(Rupees Two crore eight lakh forty nine thousand nine hundred) only.

Technically Approved


Regional Chief Conservator of Forests
Rourkela Circle

Divisional Forest Officer,
Keonjhar Division

CHAPTER-VI

PROVISION OF FUNDS AND FUND UTILIZATION

Rs. 2,80,49,900.00/- (Rupees Two crore eight lakh forty nine thousand nine hundred) only shall be utilized by the user agency i.e. M/s OMC Ltd on approval of the scheme for raising plantation and cost of sowing of seeds over 44.004 ha.


23/02/23
Divisional Forest Officer,
Keonjhar Division

Base Cost Norm for Compensatory Afforestation @ 1600 Seedlings/Ha with 10 Years Maintenance wages Rate@311/Per Manday						
Sl. No.	Items of work	Preferable Period of Execution	No. of Mandays	Labour Cost (in ₹)	Material Cost (in ₹)	Total Cost (in ₹)
1	2	3	4	5	6	7
0th Year (Advance Work) Pre-Planting Operation						
1.	Survey, demarcation and Pillar posting	Nov/Dec	2	622	0	622
2.	Preparation of Treatment Map (Digital Map)	Nov/Dec	1	311	100	411
3.	Site preparation (Cleaning & removal of debris)	Nov/Dec	12	3732	0	3732
4.	Creation of 4.00 mt. wide Inspection Path	Feb/Mar	1	311	0	311
5.	Alignment and stacking	Feb/Mar	2	622	0	622
6.	Digging of pits (45 cm x 45 cm x 45 cm) in hard and gravelly soil	Feb/Mar	64	19904	0	19904
7.	Construction of Temporary Labour Shed, Drinking water facility and Fire-st-Air etc.	Jan/Mar	0	0	3500	3500
	Total		82	25502	3600	29102
1st Year/ Planting Year						
1.	Refilling of pits by altering the dug-out soil of the pits, application of Organic compounds/ CDM/ FYM & mixing the same properly.	Jun/Jul	12	3732	8000	11732
2.	Transportation of 18 months old polypot seedlings in hired truck/ tractor from the permanent/ Mega nursery to planting site including Loading & unloading. (Average lead of 10 Rkm) & Stacking the seedling @ Rs. 6/- per Seedling. (1760 nos.)	Jul/Aug	0	0	10560	10560
3.	Watering the polypot seedlings at planting site	Jul/Aug	3	933	0	933
4.	Conveyance of polypot seedlings on head load from the stacking site to individual dugout pits within the planting site, applying insecticide, fertilizers & planting after scooping the soil with other applied materials & pressing the soil properly around the planted seedlings.	Jul/Aug	36	11196	0	11196
5.	Cost of Fertilizer & Insecticide A. NPK/ Bio-fertilizer @ 50 gms/ plant as basal dose = 80 kg @ Rs. 30/- per kg = Rs. 2400.00 B. Urea/ Vermicompost/ Mo Khata/ any other fertilizer in two subsequent doses @ Rs. 1,200.00 C. Insecticide/ Bio-pesticide @ 5 gms/ plant = 8 kg @ Rs. 150/- per kg = Rs. 1200.00	Jul/Aug	0	0	4800	4800
6.	Casualty Replacement @ 10% (160 nos.)	Jul/Aug	4	1244	0	1244
7.	1 st weeding & Manuring	Aug/Sept	15	4665		4665
8.	2 nd Weeding, Soil working (1mt. diameter around the plants) and Manuring.	Oct/Nov	20	6220	0	6220
9.	Fire line tracing (2m. wide fire line over 400 m long) including maintenance of inspection path.	Feb/Mar	3	933	0	933
10.	Watch & Ward including watering as per requirement	Aug-Mar	12	3732	0	3732
	TOTAL		105	32655	23360	56015
2nd Year Maintenance						
1.	Transportation of 160 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs. 6/- per seedlings	Jul	0	0	960	960

2.	Causality replacement- 10%	Jul	4	1244	0	1244
3.	Cost of Fertilizer & Insecticide					
	A) Cost of Insecticide/ Bio-pesticide @ 5 gms/plant = 0.8 Kg @ Rs. 150/- per kg = Rs. 120/-	Aug/Sept	0	0	4606	4606
	B) Urea/ NPK/ Bio-fertilizer/ Vermicompost/ Mo Khata/ any other fertilizer @ Rs. 4486/-					
4.	Weeding (Complete weeding), Manuring & Soil working (1mt. diameter around the plants)	Sept/Oct	20	6220	0	6220
5.	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
6.	Watch & Ward including watering as per requirement	Apr-Mar	18	5598	0	5598
7.	Maintenance of Temporary Labour Shed, Drinking water facility and First-Aid etc.				1000	1000
	Total		45	13995	6566	20561
3rdYear Maintenance						
7	Cost of Fertilizer Urea/ NPK/ Bio-fertilizer/ Vermi compost/Mo Khata/ any other fertilizer	Sept/Oct	0	0	4486	4486
8	Weeding, Manuring & Soil working (1mt. diameter around the plants)	Sept/Oct	20	6220	0	6220
9	Fire line tracing (2 m wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
10	Watch & Ward including watering as per requirement	Apr/Mar	18	5598	0	5598
11	Maintenance of Temporary Labour Shed, Drinking water facility and First-Aid etc.	Apr/Mar			1000	1000
	Total		41	12751	5486	18237
4thYear Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
2	Watch & Ward	Apr-Mar	18	5598	0	5598
	Total		21	6531	0	6531
5thYear Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr-Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
6thYear Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933.0
2.	Pruning of branches, Singling out of multiple shoots	Jan/Mar	5	1555.00	0	1555.0
3.	Watch & Ward	Apr-Mar	18	5598.00	0	5598.0
	Total		26	8086	0	8086.0
7thYear Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward	Apr-Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
8thYear Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward	Apr-Mar	18	5598.00	0	5598
	Total		21	6531	0	6531

9 th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward	Apr-Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
10 th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933	0	933
2.	Watch & Ward	Apr/Mar	18	5598.00	0	5598
	Total		21	6531	0	6531

Year wise Abstract of Cost Norm (Showing seedling cost separately)							
Sl. No.	Year	No. person days	Labour Cost @ ₹ 311/- per day	Material Cost	Monitoring Evaluation, Learning, Documentation and Other Contingency (5%) of (4+5)	Cost of Seedlings @ ₹ 50.31 per seedlings	TOTAL COST (₹)
1.	0 th Year	82	25502	3600	1398.00	0	30500.00
2.	1 st Year	105	32655	23360	2800.00	88546	147361.00
3.	2 nd Year	45	13995	6566	1028.00	8050	29639.00
4.	3 rd Year	41	12751	5486	911.00	0	19148.00
5.	4 th Year	21	6531	0	326.00	0	6857.00
6.	5 th Year	21	6531	0	326.00	0	6857.00
7.	6 th Year	26	8086	0	404.00	0	8490.00
8.	7 th Year	21	6531	0	326.00	0	6857.00
9.	8 th Year	21	6531	0	326.00	0	6857.00
10.	9 th Year	21	6531	0	326.00	0	6857.00
11.	10 th Year	21	6531	0	326.00	0	6857.00
	Total	425	132175	39012	8497	96596	276280

Matrix for Model-I-B Conventional CA Plantation (AR) 1600 plants per Ha.

In Rupees

Sl. No.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost
	Base Norm	30500	147361	29639	19148	6857	6857	8490	6857	6857	6857	6857											
1	2021-22	30500	154729	32674	22166	8335	8751	11377	9648	10131	10637	11169											310117
2	2022-23		32025	162465	34308	23274	8752	9189	11946	10130	10638	11169	11727										325623
3	2023-24			33626	170588	36023	24438	9190	9648	12543	10637	11170	11727	12313									341903
4	2024-25				35307	179117	37824	25660	9650	10130	13170	11169	11729	12313	12929								358998
5	2025-26					37072	188073	30715	26943	10133	10637	13829	11727	12315	12929	13575							376948
6	2026-27						38926	197477	41701	28290	10640	11169	14520	12313	12931	13575	14254						395796
7	2027-28							40872	207351	43786	29705	11172	11727	15246	12929	13578	14254	14967					415387
8	2028-29								42916	217719	45975	31190	11731	12313	16008	13575	14257	14967	15715				436366
9	2029-30									45062	228605	48274	32750	12318	12929	16808	14254	14970	15715	16501			458186
10	2030-31										47315	240035	50688	34388	12934	13575	17648	14967	15719	16501	17326		481096

Water Model-W-I			
Water provision to CA Plantation			
Solar system with Bore well (1 system for 5 Ha. Plantation) fitted with Drip system			
Year of Installation (0 th Year)			
1	Cost of Borewell	1,50,000	
2	Installation of Solar panel & other System	3,00,000	
3	Cost of 0.5 HP submersible motor with accessories	50,000	
4	Water Storage Tanks/ Flexible pipes	15,000	
5	Cost of laying Drip system including all accessories, fitting etc. with 12% GST	3,02,431	
Total		8,17,431	
6	Cost of Water & watering per Ha. $(8,17,431/5) = \text{Rs. } 1,63,486$		1,63,486
1 st Year Watering			
7	No maintenance required		0
Total			0
2 nd Year Watering			
8	Maintenance of system @ 5% of initial cost of installation		8,174
Total			8,174
3 rd Year Watering			
9	Maintenance of system @ 5% of initial cost of installation		8,174
Total			8,174
4 th Year Watering			
10	Maintenance of system @ 5% of initial cost of installation		8,174
Total			8,174
5 th Year Watering			
11	Maintenance of system @ 5% of initial cost of installation		8,174
Total			8,174

Abstract					
Sl. No.	Year	No. person days	Labour cost @ Rs. 326/- per day	Material Cost	Total cost (Rs.) Considered in the Matrix
1	0 th Year	0	0.0	163486.0	163486.0
2	1 st Year	0	0.0	0.0	0.0
3	2 nd Year	0	0.0	8174.0	8174.0
4	3 rd Year	0	0.0	8174.0	8174.0
5	4 th Year	0	0.0	8174.0	8174.0
6	5 th Year	0	0.0	8174.0	8174.0
Total		0	0.0	196182	1,96,182

Matrix for Watering W1 (Solar Borewell) fitted with Drip System (per Ha)

5

Sl. No.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
Base Norm	163486	0	8174	8174	8174	8174	8174											
1	2021-22	163486	0	9011	9463	9935	10432											202327
2	2022-23		171660	0	9462	9936	10432	10954										212444
3	2023-24			180243	0	9935	10433	10954	11502									223067
4	2024-25				189255	0	10432	10955	11502	12077								234221
5	2025-26					198718	0	10954	11503	12077	12681							245933
6	2026-27						208654	0	11502	12078	12681	13315						258230
7	2027-28							219087	0	12077	12682	13315	13981					271142
8	2028-29								230041	0	12681	13316	13981	14680				284699
9	2029-30									241543	0	13315	13982	14680	15414			298934
10	2030-31										253620	0	13981	14681	15414	16185		313881

ESTIMATE FOR SOWING OF GRASS SEEDS PER HA.

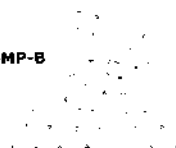
Cost of broadcasting of grass seeds per ha. Labour rate Rs.450.00/- per day				
Sl. No.	Purpose	No. of Labour/quantity of materials	Rate (in Rs.)	Amount in Rs.
1	Spreading of good top soil	03 Nos	450.00/- Labour	1350.00
2	Adding FYM and good earth	2 TL FYM	5625/TL FYM	11250.00
		2 TL Good earth	6750/TL Good earth	13500.00
3	Cost of grass seed 25 Kg/per ha		250/Kg	6250.00
4	Broad casting	10 nos	450.00/-Labour	4500.00
Total				36,850.00

**MAP SHOWING THE PLANTATION OF ADEQUATE DROUGHT HARDY PLANT SPECIES SHOWING SEEDS IN OB
DUMP WITHIN JILLING LANGALOTA IRON ORE MINES OF OMC LTD**

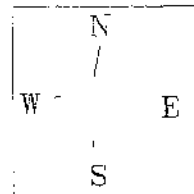
APPAHATU DUMP-A



APPAHATU DUMP-B



**JILLING WASTE
DUMP**



APPAHATU DUMP-A

TOTAL WASTE DUMP AREA=5.896 Ha

PLANTATION AREA=5.130 Ha

LENGTH OF GARLAND DRAIN=1047.000 Mtr.

LENGTH OF RETAINING WALL=1047.000 Mtr.

APPAHATU DUMP-B

TOTAL WASTE DUMP AREA=5.896 Ha

PLANTATION AREA=5.130 Ha

LENGTH OF GARLAND DRAIN=1266.483 Mtr.

LENGTH OF RETAINING WALL=1355.350 Mtr.

JILLING WASTE DUMP

TOTAL WASTE DUMP AREA=31.800 Ha

PLANTATION AREA=30.059 Ha

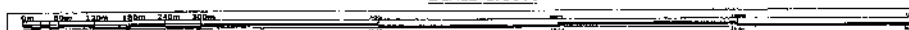
LENGTH OF GARLAND DRAIN=4959.300 Mtr.

LENGTH OF RETAINING WALL=2779.693 Mtr.

INDEX

MINING LEASE BOUNDARY	
WASTE DUMP TOP	
WASTE DUMP BOTTOM	
PROPOSED GARLAND DRAIN	
PROPOSED RETAINING WALL	
PROPOSED GUARD DRAIN	
PROPOSED ROAD IN DUMP	
PROPOSED GRASS SEEDING	
PROPOSED PLANTATION	

SCALE-1:6000



CONSTRUCTION OF CHECK DAMS, RETENTION/TOE
WALLS TO ARREST SLIDING DOWN OF THE EXCAVATED
MATERIAL ALONG THE CONTOUR

AT

JILLING- LONGALOTA IRON ORE MINES
UNDER KEONJHAR FOREST DIVISION

OF

M/S ODISHA MINING CORPORATION LTD.
(A GOVT.OF ODISHA UNDERTAKING)
A Gold Category State PSU
OMC HOUSE, BHUBANESWAR-751001

(As per condition No.10 (iii) of the stage-I Forest Clearance granted by
MoEF & CC, Govt. of India vide F.No.8-49/1998-FC (PT 1) dt 09.02.2024)

(ON ONE TIME COST NORM BASIS)

SCHEME FOR CONSTRUCTION OF CHECK DAMS, RETENTION/TOE WALLS TO ARREST SLIDING DOWN OF THE EXCAVATED MATERIAL ALONG THE CONTOUR

1. INTRODUCTION.

Stage-I approval for diversion of 22.697 ha of forest land for non-forest purpose for Jilling-Longalata Iron ore mine has been accorded vide F. No. F.No.8-49/1998-FC (PT 1) dt 09.02.2024 of Ministry of Environment, Forests & Climate Change subject to fulfilment of certain conditions. The condition No.10 (iii) is given as under:

"10 (iii). Construction of check dams, retention /toe walls to arrest sliding down of the excavated material along the contour in accordance with the approved scheme."

In compliance with this condition, a comprehensive scheme is prepared for implementation of the same in 456.100 Ha of the said mining lease. The scheme has been prepared as per the current wage rate issued by the Labour Commissioner, Odisha vide Gazette Notification dt. 13.03.2024, Rs. 450/- per Manday.

2. OBJECTIVE OF THE SCHEME:

1. To meet the requirement of condition No. 13(C) of the Stage-I approval granted by MoEF & CC, Govt. of India.
2. To prevent erosion of sediment due to surface runoff.
3. To prevent obstruction to natural water source.
4. To prevent flow of eroded soil from the mining areas to the cultivable lands, natural streams and habitations.

3. PROPOSED METHODOLOGY:

1. Propose to construct retaining wall and garland drain around the waste dumping site.
2. Propose to develop the dump by terracing method.
3. Provision of inwardly sloping, soil bund at the edge of each terraced channel at the toe end of terrace will be made following the rain water management.
4. Propose to construct catch drain on the deep slope.
5. Propose to develop garland drains with settling tanks at the toe of the dumps to allow the settling of silt.

The Salient features of the drainage management plan are as follows:

1. The overall drainage planning has been done in such a manner which follows the existing pre mining drainage routing to the extent possible, maintaining the overall slope in the direction of pre mining flow direction so that run off distribution is not affected.
2. Garland drains have been planned on the sides of quarries and external dumps (depending on contours).

The garland drains shall be routed through catch pits and settling tanks to settle out suspended solids in the storm water. The purified water will be discharged to natural water source.

3. Grass and bushes in drains hold back solid particles during the flow of water in the drain. Small stone barriers constructed across the drain will check water flow and arrest solids.
4. Stone pitching will be made at suitable places to regulate the slope and hence water flow will not be obstructed.
5. Settling pits and drains shall be cleaned intermittently, especially during monsoon.
6. Outer side of the cross-check dams on the drainage lines shall be re-enforced with green cover of non-browsable species like *Jatropha curcas*, *Vitex negundo*, *Gliricidia maculate*.

2. MEASURES PROPOSED TO BE ADOPTED

Structural Measures

Vegetative means of erosion control are the most feasible and economic measures. However, as the pressure on land is increasing, need is felt to bring even higher Retaining Wall. The location map of the ML area is enclosed as Plate No. 1.

(i) It has been proposed to construct 5500 mtr of crated boulder masonry around the proposed OB dump/sub-grade ore dump and excavated area. The masonry will be constructed by using wire mesh and small size R.R. Stones. The height of the masonry structure will be 1mt and the width 1m. The work will be executed with an estimated cost of Rs 2,24,52,900.00 (Annexure-I). This will prevent pollution of water flowing in the nala adjoining to the villages.

(ii) It has also been proposed to dig out 5500 mt long Garland drain inside the ML area to protect the excavated material being washed out and allowing storm water through the drain into water exit points. The water exit points will be kept according to the contours and direction of flow of the surface runoff at an interval of about 100 mt. The estimated cost of construction of garland drain including cost of surface cutting and blasting comes to Rs 11,70,312.00 (Annexure-II).

3. INSPECTION, MONITORING AND EVALUATION

For successful implementation of the above mitigative measures, intensive inspection and technical guidance from concerned technical wing is required. Sufficient fuel/conveyance charges for technical experts shall be provided by the user agency for proper execution of these programmes. Budgetary provision of 15% of the total project cost has been earmarked on this score.

4. EXECUTING AGENCY

The works in the present Scheme shall be executed by the User Agency having specialized departments headed by qualified persons with outsourced man and machinery. To facilitate this, the user agency shall establish its own executing and supervision cells along with required infrastructural facilities. In order to maintain the quality of work, in-house supervision through competent personnel shall be provided. The entire work shall be carried out in coordination with the Forest Department. The location of crated boulder wall and garland drain is shown on the map enclosed as **Plate No. II**.

5. REQUIREMENT OF FUNDS

The total cost of the implementation of mitigative measures will be Rs 3,39,80,100.00 (Rupees three crore thirty nine lakh eighty thousand one hundred) only for implementation of the above mitigation measures, the above expenditure will be made over the next ten years period. Therefore, budget provision will be kept by the user agency for implementation of the above mitigation measures over a period of next ten years. This budget will be subject to increase in amount considering the increase in materials and labour charges. The tentative expenditure planned for the implementation of mitigative measures is given in the following table:

FINANCIAL FORECAST

Sl. No.	Particulars of interventions	Financial involvement (Rs)
1	Development of crated boulder masonry wall over a length of 5500 mtr as at (Annexure-I)	2,24,52,900.00
2	Excavation of garland drain over a length of 5500 mtr as at (Annexure-II).	11,70,312.00
3	Desiltation work of Garland drain, settling pond and check dam twice in a year (on lump sum)	5,00,000.00
4	Maintenance of retaining wall (on lump sum)	5,00,000.00
	Sub-total	2,46,23,212.00
	Inspection, monitoring and evaluation @15% of the total project cost	36,93,481.80
	Sub-total	2,83,16,693.80
	Price escalation @20%	56,63,338.76
		3,39,80,032.56
	Grand Total	Or say Rs 3,39,80,100.00

(Rupees three crore thirty nine lakh eighty thousand one hundred) only

The work shall be taken up by the User Agency as per condition no. 10 (iii) of the Stage-I grant order.

Technically Approved

[Signature]
Regional Chief Conservator of Forests
Rourkela Circle

[Signature]
Divisional Forest Officer
Keonjhar Forest Division

Development of crated boulder masonry near proposed OB dump

(Length of the wall = 5500.00 mtr.)

1) E/W excavation by mechanical means.

Qty. 5500 m x 2m x 0.3 = 3300 Cum

Taking Qty. 80% = 2640 Cum @ Rs.66.00 = Rs. 1,74,240.00

2) Blasting.

Taking 20% of Qty item (1) = 660 Cum @ Rs. 445.28 = Rs 2,93,884.80

3) Providing crate boulder.

Bottom layer: 5500 m x 1.5m x 1.00 = 8250.00 Cum

Second layer: 5500 m x 1.00m x 1.00m = 5500.00 Cum

Total: 13,750.00 Cum

@ Rs. 1598.89/Cum = Rs. 2,19,84,737.50

Total: Rs. 2,24,52,862.30

Or Say Rs. 2,24,52,900.00

Annexure-II

Excavation of Earthen drain (Garland drain) near proposed OB dump at

Jilling- Longalata iron ore Mines

1) E/W excavation by mechanical means.

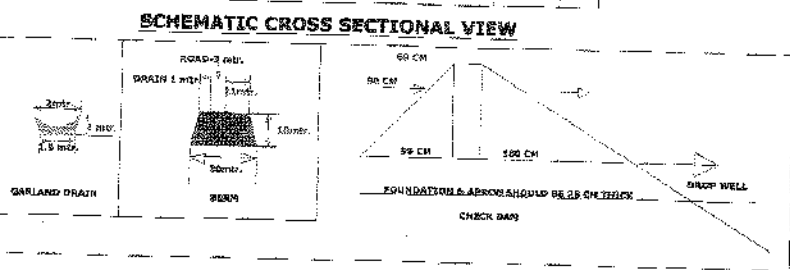
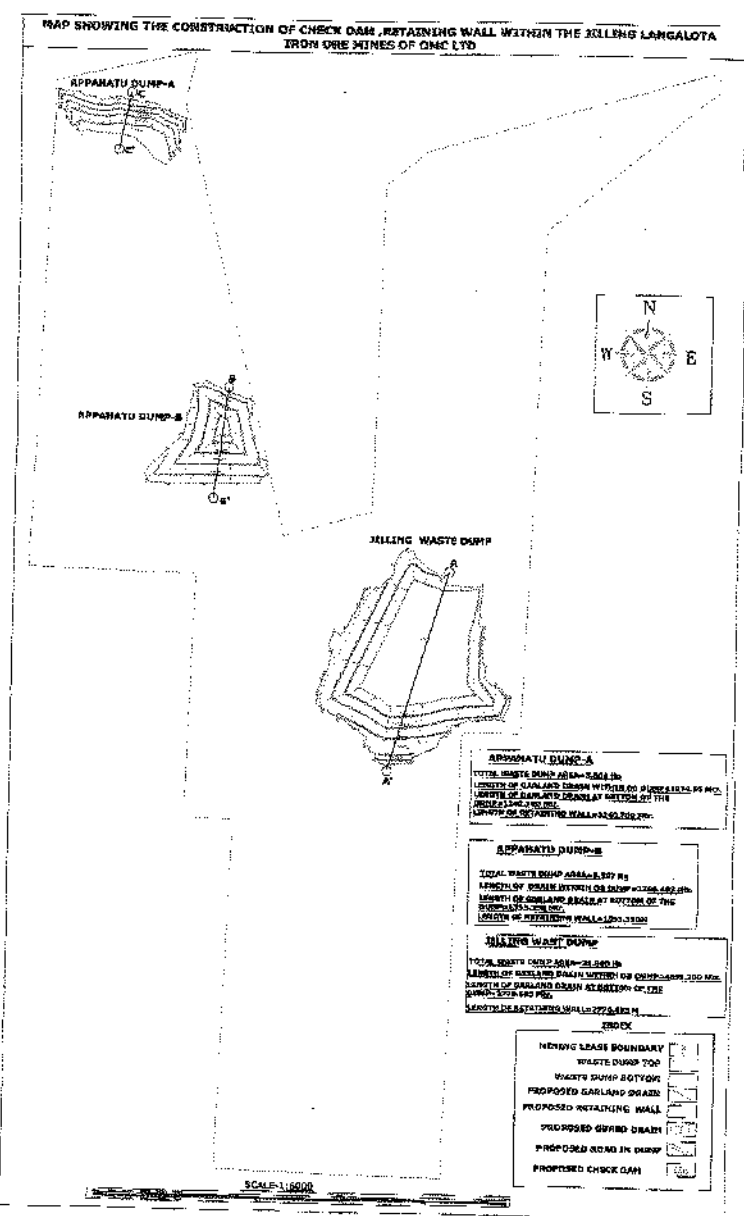
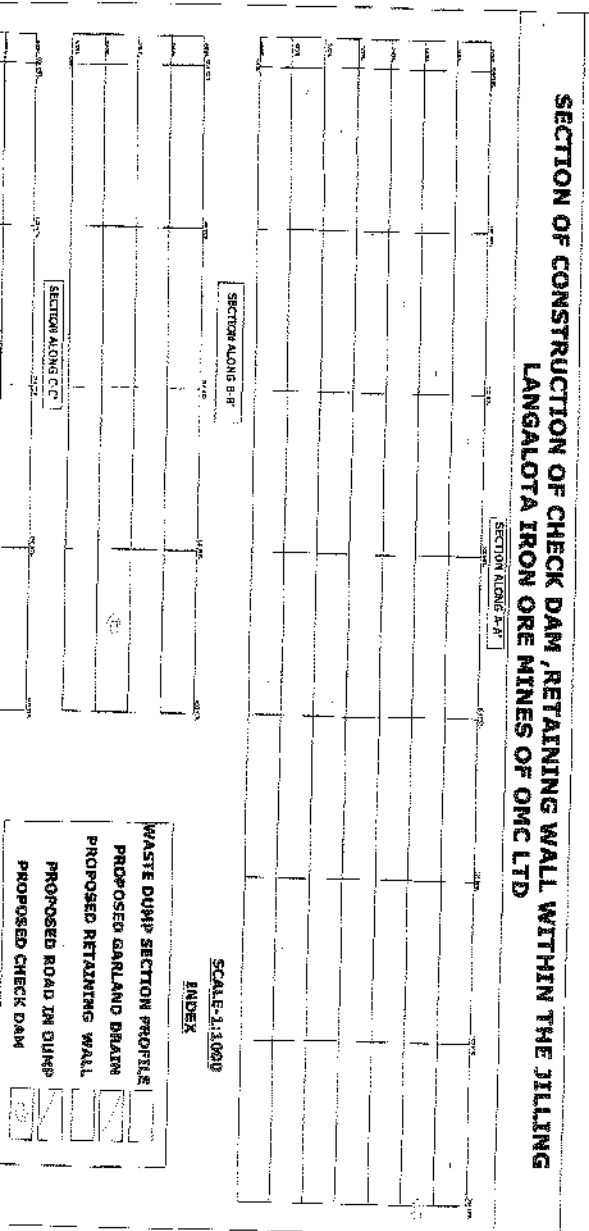
5500 m x 1.0 x 1.5 = 8250 Cum

Taking 80% of above = 6600 Cum @ Rs. 66/Cum = Rs. 4,35,600.00

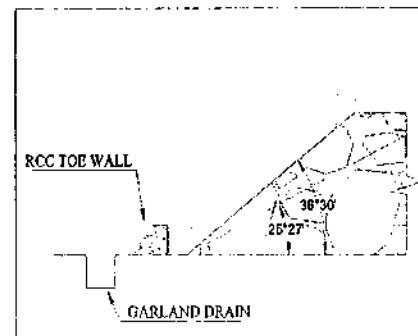
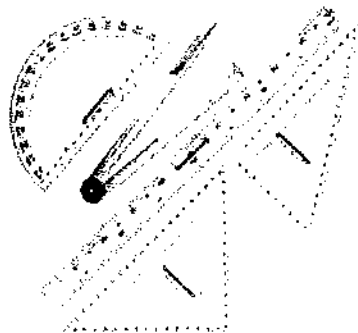
2) Blasting. 20% of Item (1) = 1650 Cum @ Rs. 445.28/Cum = Rs. 7,34,712.00

Rs. 11,70,312.00

Say Rs. 11,70,312.00



**SCHEME TO STABILIZE OVERBURDEN DUMP
BY
GRADING AND BENCHING
IN
JILLING-LONGALOTA IRON ORE MINES OF
M/S OMC LTD AGAINST DIVERSION OF
22.697 HA OF FOREST LAND
IN
KEONJHAR FOREST DIVISION.**



As per Condition no.10 (iv) of in-principle Approval of MoEF & CC, Govt. of India
vide letter no F.No.8-49/1998-FC (PT I) Dated 09.02.2024

(ON ONE TIME COST NORM BASIS)

SCHEME TO STABILIZE OVERBURDEN DUMP BY APPROPRIATE GRADING & BENCHING.

1.0 Introduction

Stage-I approval for diversion of 22.697 ha of forest land for non-forest purpose for Jilling-Longalatta Iron Ore Mines has been accorded vide F.No.8-49/1998-FC (PT 1) Dated 09.02.2024 of MoEF & CC subject to fulfillment of certain conditions. The condition No.10 (iv) stipulates that:

“iv. Stabilize the overburden dumps by appropriate grading/benching, in accordance with the approved scheme, so as to ensure that angles of repose at any given place is less than 28°; and”

In compliance with this condition, a comprehensive scheme is prepared for implementation in 22.697 ha of forest area of the said mining lease as per the one-time Cost Norm issued by PCCF (FD & NO, FC Act) for Compensatory Afforestation vide letter dt. 08.11.2021 and 01.12.2021. As per the para-2 of the said guideline, Compensatory Afforestation to be prepared by delinking the CA scheme to wage rate revision and material cost escalation for easy of doing business.

2.0 Present Scenario:

The Mining activities will be carried out in accordance with the mining plan approved by Regional Controller of Mines, Indian Bureau of Mines, Bhubaneswar. A total of 11.59 MCum of wastes will be generated from entire Jilling Langalota Iron Ore Mines to conceptual stage including rehandling quantity of 3 million cum from Langalotta waste dump. The waste shall be dumped during plan period in the backfill of Jilling-Gangoria Block and Appahatu waste dump A & Appahatu waste dump B.

Out of the total 11.59 MCum of waste generated upto conceptual, 20% of these materials proposed dump location during the conceptual period. Till conceptual period around 76.551 ha land will be covered under waste dump. Plantation and coir matting has been carried out in many part of the dead benches of waste dump. In this context, plantation of draught hardy species and sowing of seeds over has been proposed over balance 44.004 ha of OB dump area. The details are given as under:

Sl. No.	Name of the OB dump	Total area	Area covered under drain and road for maintenance of plantation	Area proposed for plantation
1	Appahatu Dump-A	5.806	0.676	5.130
2	Appahatu Dump-B	9.597	0.782	8.815
3	Jilling Waste Dump	31.800	1.741	30.059
Total Area		47.203	3.199	44.004

The key plan showing the area is enclosed as **Plate No. I.**

3.0 Salient points of waste management

- For the management of dump, height and width of individual terrace has been considered as 10 m and 15 m respectively.
- Ultimate height of dump –A and dump-B will be 85 m & 105m respectively.
- Inward slope is to be provided so that rain water will move towards dump side. It will prevent rain water flow from terrace to lower contour through the walls of the dump and forming gullies/rain cuts and rolling down of waste materials.
- Towards the inner side of terrace, half concrete open pipe are placed to collect rainwater and not allowing penetrating the dump.
- Crated Boulder retaining wall of 2m height (0.5m below ground + 1.5m above ground) X 1.0m wide will be constructed around the dump margin.
- It aims to check any roll down waste from the dump.
- At regular intervals clear openings are provided at the bottom to allow water to pass out and join the Garland drains.
- Constructed guard wall is of loose boulders.
- Garland drains around the dump will be constructed.
- At the end of the garland drain settling tanks of 15mx10mx1m deep is constructed to allow settling of carried materials.
- Slope of each terrace to be maintained $<28^{\circ}$.
- Over all slope shall be $<28^{\circ}$.

Anticipated fallout.

A. Failure of Dumps:

Three types of Dump Failure may occur in the present type of dump. These are

- Slope Failure.
- Toe failure
- Base failure.

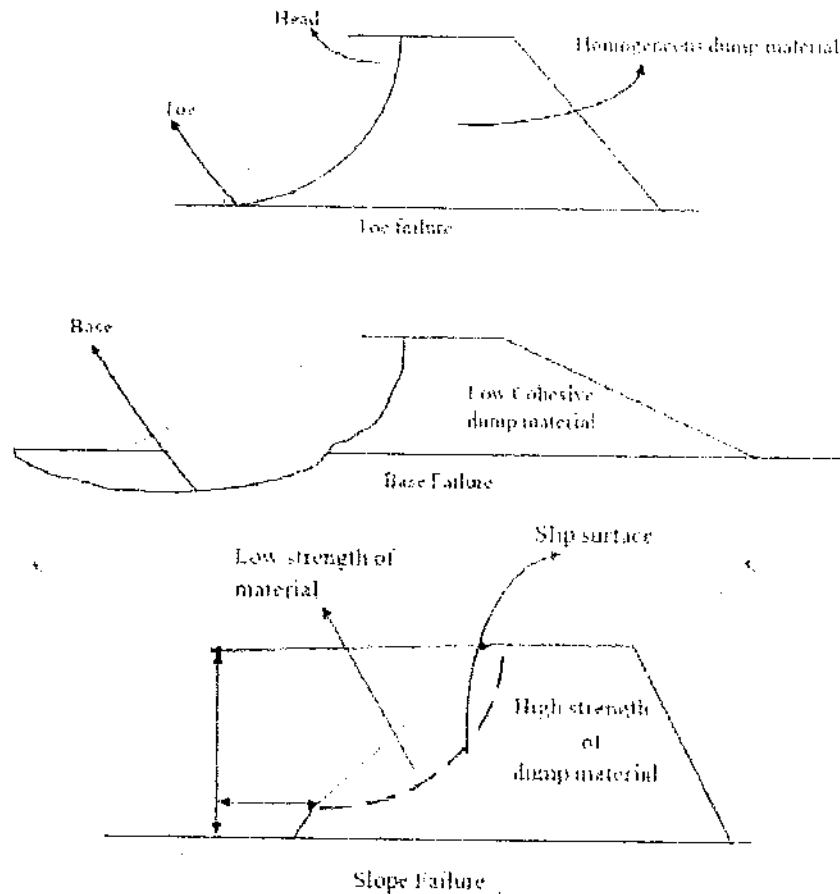


Figure 1: Dump failure line of slip.

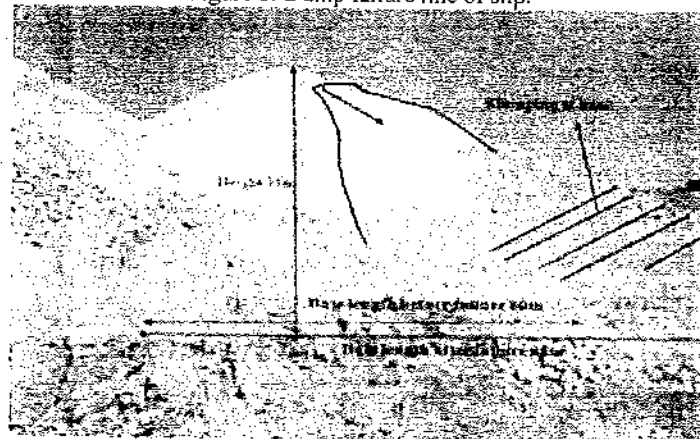


Figure 2: Dump Failure Situation.

Reasons for failure.

- Ground water and surface water flow condition plays a critical role on the stability of dump slope. Frictional strength is reduced as the height of dump is raised, due to presence of water. The pore water pressure reduces the normal stress acting on material. The cohesive strength of weak geo-material will be further reduced due to presence of pore water pressure. Waste dump placed in a loose

state, shear failure is often followed by static liquefaction which is complete loss of strength. The flow of water may enhance the seepage force, leading to formation and migration of tension crack.

ii. Erosion also plays an important role in affecting the stability by surface weathering, ground water or surface water seepage, toe erosion and slope modification, ground water or surface runoff. Erosion changes the waste dump slope geometry and morphological character. The weathering and attrition of material at the toe of a potential slide reduce the restraining force that may destabilize the slope. Erosion of void filling materials, or zone of percolation can efficiently decrease cohesion among grain boundaries. The cohesion strength notable reduce the rock mass shear strength. The decrease in shear strength may allow movement of dump slope along weak plane. In addition localized erosion may also result in increase permeability and ground water flow along the slope. This may lead to failure due to formation of gully and deep flow channels in dump.

iii. Other affecting parameters are

- Gradient of the Seam,
- Ground Water Regime
- Nature of Over burden Rock
- Presence of clay and Soil layers and their properties.
- Angle of Repose of the broken Over burden rock
- Cohesion of the Over burden Rock materials
- Height of OB Dump in one stretch
- Ultimate Height and Slope of Waste Dump
- Dump Stability Parameters Strip/Cut Width and Depth.

B. Dust pollution due to wind/whorl wind.

The average wind speed as noticed in post monsoon is 2.25m/s with a maximum speed of 6.13m/s. In winter the average speed is 1.31m/s with a maximum speed of 5.61m/s. This wind speed has a capacity to pick up heavy dust from dry surface of dump, ore stack & sub grade stack.

C. Loss of life & property.

Failure of dump may cause loss of life & property. May put occupational hazards to workman.

Summary of prescription on Benching & Grading:

- Bench height: 20m,
- Bench Width: 15m
- Number of Benches: Dump A-5 and Dump B-5
- Over all slope: $<28^{\circ}$.
- Slope of each terrace: $<28^{\circ}$.

4.0 Stabilization of Over Burden Dump:

After the declaration of dead of the Over Burden dump, the same shall be covered by means of plantation.

4.1 By grass seeding: Grass seeding over 44.004 ha of Over Burden dump will be carried out before planting tall trees to stabilize Over Burden dump.

4.2 By Planting Tall trees: An area over 44.004 ha has been proposed for dump plantation. The details of plantation is given as under:

4.2.1 Planting & post-planting operations: Block Plantation over 44.004 ha will be carried out @ 1600 plants/Ha. All planting & post planting measures like casualty replacement, soil working, manuring, fire protection etc. will be undertaken as given in Cost norm for Block plantation with 1600 seedlings approved by PCCF, Odisha. This activity has already been considered in the Scheme under condition No.10 (ii). Hence not repeated in the financial outlay.

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

- ❖ Care to be taken to raise healthy seedlings of minimum 60 cm height. 10% extra seedlings are to be raised for replacement of casualty.
- ❖ Pitting shall invariably be done during November-February i.e., before onset of monsoon. If possible the soil of upper portion and lower portion of pit should be placed separately in specific direction so that while planting the pits will be filled with top-soil first.
- ❖ Planting shall be done on the onset of monsoon to get full benefit of monsoon rain and should not be delayed.
- ❖ Basal dose of 50 grams of NPK and 5 grams of Chlorpyriphos dust per plant should be applied at the time of planting carefully by mixing with top-soil so that the roots of seedlings do not come in direct contact with fertilizer.
- ❖ In case of any mortality of planted seedlings, it should be replaced with good seedlings as soon as possible for better success rate.
- ❖ Complete weeding in proper time will be done. Strip weeding will not be permitted.
- ❖ Soil-working and application of 2nd dose fertilizer of 50 gms NPK/plant should be done in time

Since the area is provided with barbed wire fence, watch & ward will be easier. Watchers may be engaged in weeding in problematic areas along with watch & ward.

4.2.2 Spacing: The spacing adopted for the plantation in gaps is 2.5 mtr X 2.5 mtr. Alignment and pit marking should be done carefully in slopes so that the horizontal distance between plants in a row remains 2.5 mtrs and not the distance measured along the slope.

4.2.3 Species: Although indigenous species are to be preferred in the plantation, considering adverse soil & moisture conditions we may go for hardy exotic species where required so that the plants are

able to survive. Considering the topography, soil and moisture availability of the plantation area, the following species will be planted.

Name of species	Common name	Remarks
<i>Acacia auriculiformis</i>	Acacia	In rocky exposed areas
<i>Azadirachta indica</i>	Neem	In well drained soil
<i>Derris indica</i>	Karanja	In area with good soil depth
<i>Embllica officinalis</i>	Amla	In area with soil depth
<i>Cassia siamea</i>	Chakunda	In rocky and exposed areas
<i>Dalbergia sissoo</i>	Sissoo	In lower areas with good soil depth
<i>Gmelina arborea</i>	Gambhari	In lower areas with good soil depth
<i>Dendrocalamus strictus</i>	Salia bamboo	In lower areas with good soil depth healthy seedlings from rhizomes may be planted
<i>Zizyphus mauritania</i>	Ber	In rocky areas with low soil depth
<i>Ficus religiosa</i>	Pipal	
<i>Ficus benghalensis</i>	Bara	

5.0. Monitoring & Evaluation.

The implementation & its maintenance will be evaluated by the authority of the User Agency regularly. The Divisional Forest Officer, Keonjhar Forest Division may be kept informed from time to time as required.

6.0 Implementing Agency.

This prescription is to be implemented by the user agency. The Plan showing OB dump with terrace, drain with plantation and grass sowing area is enclosed as **Plate No. II**.

7.0 Financial Forecast

Financial Forecast for the measures proposed like development of created boulder masonry and excavation of garland drain has been considered in separate schemes under this stage-I approval and attached herewith. So, no additional cost for the same has been proposed in this scheme. Financial Forecast for the measures like Terracing of OB dump, earthen drain within the slope of OB dump, grass seeding on OB dump and plantation on OB dump area has been proposed in this scheme. The detail of financial forecast for scheme is given as under:

FINANCIAL FORECAST

Sl. No.	Particulars of interventions	Financial involvement (Rs)
1	Terracing of OB dump (Appahatu-A, Appahatu-B and Jilling waste dump) over 4,72,030 sq.mt @ Rs.7.00/sq.mt (Annexure-I).	33,04,210.00
2	Excavation of earthen drain of 9200 cum within proposed OB dump area along with stone patching (Annexure-II).	42,84,647.00
3	Cost for sowing of grass seeds over 44.004 ha @ Rs. 12826/- ha.	Already included in the scheme under condition No. 10 (ii). Hence not repeated here.
4	Maintenance of grass seed @ (5 mandays for period of six month). Total 900 mandays (180 x 5) for six months: 900 x Rs.450.00 = 4,05,000.00.	4,05,000.00
5	Block plantation (1600 plants/ha) over 44.004 ha of OB dump and abandoned quarry area @ Rs. 358998/Ha.	Already included in the scheme under condition No. 10 (ii). Hence not repeated here.
Sub-Total:		79,93,857.00
Inspection, monitoring and evaluation @15% of the total project cost.		11,99,078.55
Total		91,92,935.55
Price escalation @20%		18,38,587.11
Grand Total		1,10,31,522.66 Or say Rs. 1,10,31,600.00

(Rupees One crore ten lakh thirty one thousand six hundred) only

Technically Approved

Regional Chief Conservator of Forests
Rourkela Circle

Divisional Forest Officer
Keonjhar Forest Division

Engagement of HEMM (Heavy earth mining machineries) in dump slope for terracing

Sl. No.	Name of the OB dump	Total area	Area in m ² to be covered under terracing
1	Appahatu Dump-A	5.806	58,060
2	Appahatu Dump-B	9.597	95,970
3	Jilling Waste Dump	31.800	3,18,000
Total Area		47.203	4,72,030

1. Location- over burden dump-work efficiency of HEMM machine per hour-200Sq.m on the dump. (Average height of the terrace-10 mt)
2. Rate of engagement of HEMM Machine Rs. 1400/hr
3. Terracing cost at OB dump/sq.m- Rs. 1400/200=**Rs.7.00**
4. Total terrace area in sq.m= 4,72,030 sqm X Rs 7.00=Rs 33,04,210.00

Excavation of earthen drain in within the slope of proposed OB dump**A: E/W Excavation by Mechanical Means**

Sl. No.	Name of the OB dump	Total area	Length of the drain at the end of one terrace in mtr	Length of drain at every 50 meter interval within the slope in mtr	Total length of the drain in mtr
1	Appahatu Dump-A	5.806	1634.56	340	1974.56
2	Appahatu Dump-B	9.597	1766.403	500	2266.403
3	Jilling Waste Dump	31.800	3559.30	1400	4959.300
Total Area		47.203	6960.263	2240	9200.263

1. E/W excavation by mechanical means for drain= 9200.263m x 1m x1 m=9200.263 Cum or say 9200 Cum
2. Taking Rs. 66.00/Cum, total cost for excavation of 9200 cum of earthen material
= Rs.6,07,200/-

B: Providing crate boulder

1. Crate boulder pitching within earthen drain: 9200 x 0.5 x 0.5= 2300 Cum
2. Considering Rs. 1598.89/Cum, the cost of boulder pitching within earthen drain=2300 x 1598.89 = Rs 36,77,447/-

Total Cost = Rs. 6,07,200/- + Rs 36,77,447/- = Rs 42,84,647/-

Compensatory Afforestation@ 1600 Seedlings/Ha with 10 Years Maintenance						
Sl. No.	Items of work	Preferable Period of Execution	No. of Mandays	Labour Cost (in ₹)	Material Cost (in ₹)	Total Cost (in ₹)
1	2	3	4	5	6	7
0th Year (Advance Work) Pre-Planting Operation						
1.	Survey, demarcation and Pillar posting	Nov/Dec	2	622	0	622
2.	Preparation of Treatment Map (Digital Map)	Nov/Dec	1	311	100	411
3.	Site preparation (Cleaning & removal of debris)	Nov/Dec	12	3732	0	3732
4.	Creation of 4.00 mt. wide Inspection Path.	Feb/Mar	1	311	0	311
5.	Alignment and stacking	Feb/Mar	2	622	0	622
6.	Digging of pits (45 cm x 45 cm x 45 cm) in hard and gravelly soil	Feb/Mar	64	19904	0	19904
7.	Construction of Temporary Labour Shed, Drinking water facility and Fire-st-Air etc.	Jan/Mar	0	0	3500	3500
	Total		82	25502	3600	29102
1st Year/ Planting Year						
1.	Refilling of pits by altering the dug-out soil of the pits, application of Organic compounds/ CDM/ FYM & mixing the same properly.	Jun/Jul	12	3732	8000	11732
2.	Transportation of 18 months old polypot seedlings in hired truck/ tractor from the permanent/ Mega nursery to planting site including Loading & unloading. (Average lead of 10 Rkm) & Stacking the seedling @ Rs. 6/- per Seedling. (1760 nos.)	Jul/Aug	0	0	10560	10560
3.	Watering the polypot seedlings at planting site	Jul/Aug	3	933	0	933
4.	Conveyance of polypot seedlings on head load from the stacking site to individual dugout pits within the planting site, applying insecticide, fertilizers & planting after scooping the soil with other applied materials & pressing the soil properly around the planted seedlings.	Jul/Aug	36	11196	0	11196
5.	Cost of Fertilizer & Insecticide (a) NPK/ Bio-fertilizer @ 50 gms/ plant as basal dose = 80 kg @ Rs. 30/- per kg = Rs. 2400.00 (b) Urea/ Vermicompost/ Mo Khata/ any other fertilizer in two subsequent doses @ Rs. 1,200.00 (c) Insecticide/ Bio-pesticide @ 5 gms/ plant = 8 kg @ Rs. 150/- per kg = Rs. 1200.00	Jul/Aug	0	0	4800	4800
6.	Casualty Replacement @ 10% (160 nos.)	Jul/Aug	4	1244	0	1244
7.	1 st weeding & Manuring	Aug/Sept	15	4665		4665
8.	2 nd Weeding, Soil working (1mt. diameter around the plants) and Manuring.	Oct/Nov	20	6220	0	6220
9.	Fire line tracing (2m. wide fire line over 400 m long) including maintenance of inspection path.	Feb/Mar	3	933	0	933
10.	Watch & Ward including watering as per requirement	Aug-Mar	12	3732	0	3732
	TOTAL		105	32655	23360	56015
2nd Year Maintenance						
1.	Transportation of 160 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs. 6/- per seedlings	Jul	0	0	960	960
2.	Casualty replacement- 10%	Jul	4	1244	0	1244
3.	Cost of Fertilizer & Insecticide A) Cost of Insecticide/ Bio-pesticide @ 5 gms/plant = 0.8 Kg @ Rs. 150/- per kg = Rs. 120/-	Aug/Sept	0	0	4606	4606

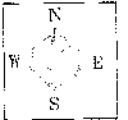
	B) Urea/ NPK/ Bio-fertilizer/ Vermicompost/ Mo Khata/ any other fertilizer @ Rs. 4486/-					
4.	Weeding (Complete weeding), Manuring & Soil working (1mt. diameter around the plants)	Sept/Oct	20	6220	0	6220
5.	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
6.	Watch & Ward including watering as per requirement	Apr-Mar	18	5598	0	5598
7.	Maintenance of Temporary Labour Shed, Drinking water facility and First-Aid etc.				1000	1000
	Total		45	13995	6566	20561
3rdYear Maintenance						
7	Cost of Fertilizer Urea/ NPK/ Bio-fertilizer/ Vermi compost/Mo Khata/ any other fertilizer	Sept/Oct	0	0	4486	4486
8	Weeding, Manuring & Soil working (1mt. diameter around the plants)	Sept/Oct	20	6220	0	6220
9	Fire line tracing (2 m wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
10	Watch & Ward including watering as per requirement	Apr/Mar	18	5598	0	5598
11	Maintenance of Temporary Labour Shed, Drinking water facility and First-Aid etc.	Apr/Mar			1000	1000
	Total		41	12751	5486	18237
4thYear Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
2	Watch & Ward	Apr-Mar	18	5598	0	5598
	Total		21	6531	0	6531
5thYear Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr-Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
6thYear Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933.0
2.	Pruning of branches, Singling out of multiple shoots	Jan/Mar	5	1555.00	0	1555.0
3.	Watch & Ward	Apr-Mar	18	5598.00	0	5598.0
	Total		26	8086	0	8086.0
7thYear Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward	Apr-Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
8thYear Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward	Apr-Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
9thYear Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward	Apr-Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
10thYear Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933	0	933
2.	Watch & Ward	Apr/Mar	18	5598.00	0	5598
	Total		21	6531	0	6531

Year wise Abstract of Cost Norm (Seedling cost separately)							
Sl. No.	Year	No. person days	Labour Cost @ ₹ 311/- per day	Material Cost	Monitoring Evaluation, Learning, Documentation and Other Contingency (5%) of	Cost of Seedlings @ ₹ 50.31 per seedlings	TOTAL COST (₹)
1.	0 th Year	82	25502	3600	1398.00	0	30500.00
2.	1 st Year	105	32655	23360	2800.00	88546	147361.00
3.	2 nd Year	45	13995	6566	1028.00	8050	29639.00
4.	3 rd Year	41	12751	5486	911.00	0	19148.00
5.	4 th Year	21	6531	0	326.00	0	6857.00
6.	5 th Year	21	6531	0	326.00	0	6857.00
7.	6 th Year	26	8086	0	404.00	0	8490.00
8.	7 th Year	21	6531	0	326.00	0	6857.00
9.	8 th Year	21	6531	0	326.00	0	6857.00
10.	9 th Year	21	6531	0	326.00	0	6857.00
11.	10 th Year	21	6531	0	326.00	0	6857.00
Total		425	132175	39012	8497	96596	276280

Matrix for Model-I-B Conventional CA Plantation (AR) 1600 plants per Ha.

SL No.	Comment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost
	Base Norm	30500	147361	29639	19148	6857	6857	8490	6857	6857	6857	6857											
1	2021-22	30500	154729	32674	22166	8335	8751	11377	9648	10131	10637	11169											310117
2	2022-23		32025	162465	34308	23274	8752	9189	11946	10130	10638	11169	11727										325623
3	2023-24			33626	170588	36023	24438	9190	9648	12543	10637	11170	11727	12313									341903
4	2024-25				35307	179117	37824	25660	9650	10130	13170	11169	11729	12313	12929								358998
5	2025-26					37072	188073	39715	26943	10133	10637	13829	11727	12315	12929	13575							376948
6	2026-27						38926	197477	41701	28290	10640	11169	14520	12313	12931	13575	14254						395796
7	2027-28							40872	207351	43786	29705	11172	11727	15246	12929	13578	14254	14967					415587
8	2028-29								42916	217719	45975	31190	11731	12313	16008	13575	14257	14967	15715				436366
9	2029-30									45062	228605	48274	32750	12318	12929	16808	14254	14970	15715	16501			458186
10	2030-31										47315	240035	50688	34388	12934	13575	17648	14967	15719	16501	17326		481086

SECTION OF OB DUMP JILLING LANGALOTA IRON ORE MINES OF OMC LTD



JILLING WASTE DUMP



APPAHATU DUMP-A
 TOTAL WASTE DUMP AREA=5,827 SQ. M.
 LENGTH OF GARLAND DRAIN RETURN ON DUMP=12,540 M.
 LENGTH OF GARLAND DRAIN AT BOTTOM OF THE DUMP=1,000 M.
 LENGTH OF RETAINING WALL=1,000 M.

APPAHATU DUMP-B
 TOTAL WASTE DUMP AREA=5,827 SQ. M.
 LENGTH OF GARLAND DRAIN RETURN ON DUMP=12,540 M.
 LENGTH OF GARLAND DRAIN AT BOTTOM OF THE DUMP=1,000 M.
 LENGTH OF RETAINING WALL=1,000 M.

JILLING WASTE DUMP
 TOTAL WASTE DUMP AREA=5,827 SQ. M.
 LENGTH OF GARLAND DRAIN RETURN ON DUMP=12,540 M.
 LENGTH OF GARLAND DRAIN AT BOTTOM OF THE DUMP=1,000 M.
 LENGTH OF RETAINING WALL=1,000 M.

- LEGEND**
- ☐ MINING LEASE BOUNDARY
 - ☐ WASTE DUMP TOP
 - ☐ WASTE DUMP BOTTOM
 - ☐ PROPOSED GARLAND DRAIN
 - ☐ PROPOSED RETAINING WALL
 - ☐ PROPOSED GARLAND DRAIN
 - ☐ PROPOSED ROAD ON DUMP
 - ☐ PROPOSED GRASS SODDING
 - ☐ PROPOSED PLANTATION

SCALE-1:5000

SECTION ALONG C-C'

SECTION ALONG B-B'

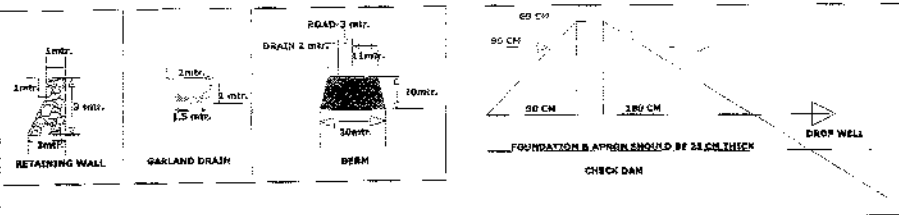
SECTION ALONG A-A'

SCALE-1:1000

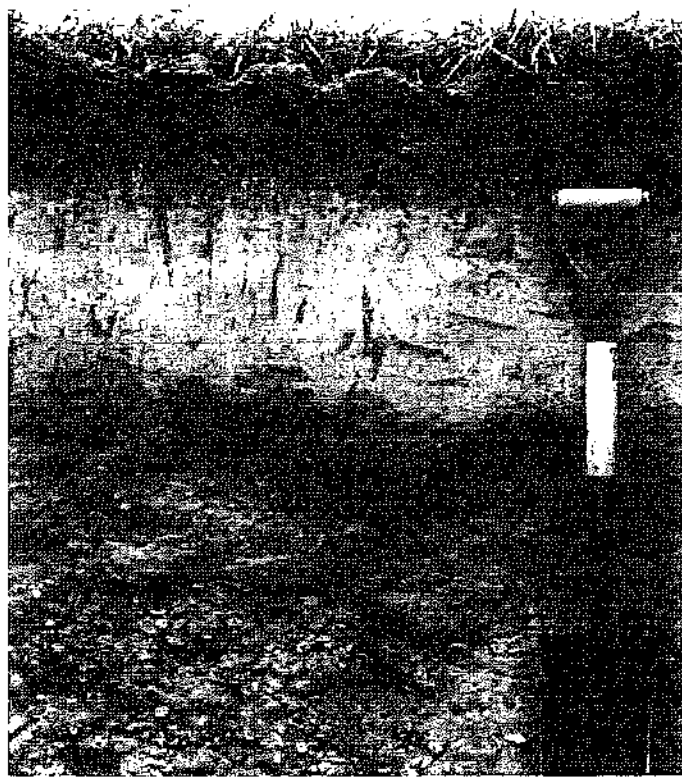
INDEX

WASTE DUMP SECTION PROFILE
 PROPOSED GARLAND DRAIN
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 PROPOSED ROAD ON DUMP

SCHEMATIC CROSS SECTIONAL VIEW



SCHEME FOR
MANAGEMENT OF TOP SOIL
AT
JILLING-LONGALOTTA IRON ORE MINES
OF
M/S ODISHA MINING CORPORATION LTD.
(A Govt. of Odisha Undertaking)
OMC HOUSE, BHUBANESWAR-1



Compliance to Condition No.10 (v) of "in principle approval" order vide F.No.8-49/1998-FC (PT 1)

Dated 09.02.2024 of MoEF&CC, Govt. of India.

(ON ONE TIME COST NORM BASIS)

**SCHEME FOR MANAGEMENT OF TOP SOIL AT JILLING-LONGALOTTA IRON ORE
MINE OF M/S ODISHA MINING CORPORATION LTD.**

1. INTRODUCTION

Stage-I approval for diversion of 22.697 ha of forest land for non-forest purpose for Jilling-Longalotta Iron Ore mine has been accorded vide F.No.8-49/1998-FC (PT1) Dated 09.02.2024 of MoEF&CC, subject to fulfillment of certain conditions. The condition No. 10 (v) of the Stage-I approval reads as under:

"10 (v). No damage shall be caused to the top-soil and the user agency will follow the topsoil management plan."

In order to comply the above condition a scheme has been prepared in line with the instruction given by PCCF (FD & NO FC Act) on dt 08.11.2021 and dt 01.12.2021. The purpose of this scheme is to prescribe methods to manage fertile top soil/sub-soil effectively so as to preserve & conserve precious natural resources which has been formed after years of natural processes.

2. TOP SOIL MANAGEMENT.

In order to manage the top soil the following suggestions are put forth and to be practiced:

- ✓ Top soil likely to be generated is to be stored at earmarked place.
- ✓ Dump may have a slope less than 28°
- ✓ Cover the top soil with a tarp/coir mat.
- ✓ Broadcast grass seed over the top soil.
- ✓ During reclamation process the top soil may be utilized to cover the top after filling and covered the area under tree planting.
- ✓ Bring the soil under tree planting as soon as possible and covered with mulch to prevent the soil from washing or blowing away.
- ✓ Generation of Top Soil & its utilization will be recorded in a measurement book and copy of the same to be provided to reviewing authorities annually.

3.0 PRESENT SCENARIO

As per the approved mining plan, no top soil will be generated during first 5 years of mining as the mining shall be continued in the already working out pits. The current proposal for diversion is over 22.697 ha of already broken up forest area. Therefore, the generation of top soil shall be negligible. However, any residual top soil likely to be produced will be utilized in reclamation of mine and plantation as done in earlier occasions.

4.0 PLANS FOR TOP SOIL MANAGEMENT:

The topsoil management plan provides description of the soil stripping and stockpiling procedures to minimize top soil degradation and maximum availability of suitable soil for future rehabilitation

within mining lease of Jiling-Longalotta Iron Ore Mines of M/s OMC Ltd. Topsoil is to be stripped in areas proposed to be distributed. A comprehensive top soil management plan has been prepared keeping in view of the conservation, regeneration and afforestation in and around the site where top soil will be stored. In non-mineralized area also there is existence of very thin layers of top soil say 5.0 cm to 10.0 cm varying from site to site, which is very difficult to slice down and will be stored separately for use during future reclamation.

The top soil inside the Mining Lease area is scanty and present in extremely thin layer. The topsoil will be utilized for concurrent plantation works in the mine as per this plan. It is proposed to use the top soil generated during the mining operation within a period of six months due to its low shelf-life. Some of the top soil will be stored temporarily until it can be used for plantation works & dump plantation. The Topo Sheet showing location of the ML area is enclosed as **Plate No. I**.

5.0 INSPECTION, MONITORING AND EVALUATION

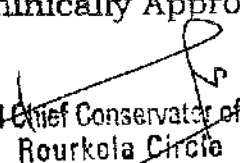
Intensive inspection and technical guidance from concerned technical wing is required for successful implementation of above top soil management. Sufficient fuel/conveyance charges for technical experts shall be provided by the user agency for proper execution of these programmes.

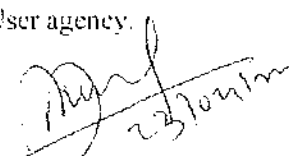
6.0. BUDGETARY PROVISION.

Top soil removal/dumping will be as per mining plan and the soil will be utilized for taking up plantations in backfill and other areas. The generation of top soil is very negligible and hence no budgetary provision has been allotted separately.

7.0. EXECUTION.

This is a part of the mining operation and to be executed by the User agency.

Technically Approved

Regional Chief Conservator of Forests
Rourkela Circle


Divisional Forest Officer
Keonjhar Forest Division

SCHEME FOR
GAP PLANTING AND SOIL AND MOISTURE
CONSERVATION ACTIVITIES
TO RESTOCK AND REJUVINATE THE
DEGRADED OPEN FORESTS LOCATED
WITHIN 100 MTR FROM OUTER PERIMETER
OF THE MINING LEASE
IN KEONJHAR DISTRICT
FOR
JILLING-LONGALOTA IRON ORE MINES
UNDER KEONJHAR FOREST DIVISION
OF
M/S ODISHA MINING CORPORATION LTD.
(A GOVT.OF ODISHA UNDERTAKING)
OMC HOUSE, BHUBANESWAR-751001

(As per condition No.11 of the Stage-I Forest Clearance granted by MoEF & CC,
Govt. of India vide F.No. 8-49/1998-FC (PT 1) dtd. 09.02.2024)

(ON ONE TIME COST NORM BASIS)

ELEMENTS OF THE SCHEME FOR GAP PLANTATION

CHAPTER	PARTICULARS	PAGE NUMBER
I	BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL	1-2
II	DETAILS OF LAND IDENTIFIED FOR GAP PLANTATION	2
III	DELINEATION OF PROPOSED AREA ON SUITABLE MAP	3
IV	AGENCY RESPONSIBLE FOR GAP PLANTATION	4
V	DETAILS OF WORK SCHEDULED PROPOSED FOR GAP PLANTATION	4-5
VI	REQUIREMENT OF FUNDS	6
VII	PROVISION OF FUNDS AND UTILIZATION	6
PLATES	PLATE NO.I: LOCATION MAP ON TOPO SHEET	
	PLATE NO.II: MAP SHOWING PLANTATION AREA.	
ANNEXURES	ANNEXURE-I: COST NORM FOR ANR PLANTATION @200 PLANTS PER HA.	7-10
	ANNEXURE-II: BAMBOO TWIGS CONTINUOUS FENCING COST NORM FOR BLOCK OR MULTIROW AVENUE PLANTATION (UNIT-10 RMT).	11-12
	ANNEXURE-III: SOIL AND MOISTURE CONSERVATION ACTIVITIES.	13-14

CHAPTER- I

BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL

Jilling-Longalatta Iron Ore Mining Lease was being operated by M/s ESSEL Mining & Industries Ltd with forest clearance over 342.602 ha (Approved by MoEF & CC vide F.No.8-49/98-FC (pt.) dt 08.10.2014). The lease was processed through auction after its expiry on dt 31.03.2020 and finally, the State Govt. vide order No.317/SM dt 11.01.2021 has transferred all the valid rights, approvals, clearances, licenses and the likes vested with the previous lessee in favour of OMC Ltd. Subsequently, the State Govt. vide order No.338/SM dt 11.01.2021 granted the mining lease for iron ore in favour of OMC in respect of Jilling-Longalatta Iron Ore ML over an area of 456.100 ha in village Jilling-Longalatta, Panduliposi etc. under Barbil Tahasil of Keonjhar district for a period of 10 years. Accordingly, the ML deed has been executed on dt 11.01.2021 and operation commenced since dt 28.02.2021 confined to approved forest area only. OMC, thereafter, submitted application for diversion of balance forest land over 22.697 ha and the MoEF & CC, Govt. of India vide letter No F.No-8-49/1998-FC (PT 1) dt 09.02.2024 accorded in-principle approval subject to fulfillment of 33 conditions.

The said ML area finds place within latitude 21° 56' 37.5297" to 21° 58' 53.4158" N and longitude 85° 25' 08.8832" to 85° 26' 37.1370" E in the Survey of India Topo Sheets bearing No. 73 G/5 & 73 F/8. The area exhibits an undulated topography with varying elevations from 620 m to 490 m above Mean Sea Level (AMSL). This area can be approached from Joda Town covering a distance of 08 km by Joda-Bamebari Express Highway. The nearest railhead is located at Joruli at a distance of 1.0 km from the ML area on Tata-Chaibasa-Banspani-Keonjhar track of South-Eastern Railway. The district Head Quarter Keonjhar is at a distance of 52 km via Kalimatti-Palasponga Express Highway. The Air strip at Tanto is at a distance of 15 km from the ML area.

The mining leases located around Jilling-Langalota Iron Ore Mines of OMC are given as below and indicated on the Location Map for reference:

Sl. No.	Name of the lessee	Location	Mineral	Area in ha
1	M/s Bhanja Minerals	Inganijharan	Iron & Mn	257.459
2	M/s OMC Ltd.	Banspani	Iron	380.400
3	M/s KMC Ltd.	Jalahari	Iron	28.456
4	M/s KMC Ltd.	Jalahari	Iron	12.654
5	M/s KMC Ltd.	Jururi	Iron	72.634
6	M/s OMC Ltd.	Khandbandh	Iron	366.311
7	M/s Tarini Minerals	Jururi	Iron & Mn	65.710
8	M/s OMC Ltd.	Balda, Palasa & Jajanga	Iron	862.001
9	M/s T.B. Lal	Jajanga	Iron	39.060
10	M/s H.G. Pandya	Jajanga	Iron & Mn	100.126
11	M/s S.C. Padhi	Gurubeda	Iron	49.084
12	M/s Narayani & Sons	Surugurutia	Iron	95.969

Out of 33 conditions stipulated in the "In-principle approval" order granted by MoEF & CC, the condition No.11 is read as under:

"11. User agency either himself or through the State Forest Department shall undertake gap planting and soil and moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40), if any, located in the area within 100 meter from outer perimeter of the mining lease. The plan for plantation and SMC activities will be prepared and submitted to MoEF & CC along with the compliance of 'in-principle' approval;"

In compliance with this condition, a comprehensive scheme is prepared for implementation of the same in the said ML. PCCF (N) vide letter dt. 08.11.2021 and 01.12.2021 has issued one-time Cost Norm for Compensatory Afforestation. As per para-2 of the said guideline, Compensatory Afforestation to be prepared on "one time cost norm basis" by delinking the CA scheme to wage rate revision and material cost escalation for easy of doing business.

CHAPTER- II

DETAILS OF LAND IDENTIFIED FOR PLANTATION OVER 5.191 HA IN ANR MODEL @ 200 PLANTS/HA

IDENTIFICATION OF DEGRADED FOREST LAND

II (1) Details of identified Forest land:

The total degraded forest land within 100 mtr from the outer perimeter of Jilling-Longalatta ML area of OMC is estimated at 87.954 ha after excluding the adjacent mining leases. Out of 87.954 ha, dense vegetation is situated over 74.402 ha, road and other infrastructures is situated over 8.361 ha and 5.191 ha is found suitable for plantation. Hence ANR plantation @ 200 plants/Ha has been proposed over 5.191 ha and SMC activities has been proposed over 74.402 ha of dense vegetation area. The location map on Survey of India Topo Sheet is enclosed as **Plate No. 1**. The area has been inspected by the Range Officer, Champua Range and found to be suitable for Afforestation and free from encroachment and encumbrances. The area under operation by other lessees adjoining to Jilling-Longalatta mines has been excluded from the plantation activities.

II (2) Character of existing vegetation of the identified site:

The prevailing forest growth in part of the forest land has been categorized under forest type- 3C/C2e Moist Peninsular Valley Sal. The vegetation consists of Sal and its associates like Jamu, Sunari, Asana, Karada, Dhaura etc.

II (3) Suitability of the identified site:

The identified site is a degraded patch with existing vegetation of Sal and Sal associates. Gaps are sporadically spread over the forest block. The topography of the area is undulating in the identified area. The soil is mostly hard to sandy loam. The average maximum temperature is 42^o to 45^oC and minimum 5^o to 10^o C and annual rainfall varies from 1100 mm to 1800 mm. The maximum rainfall is received during the rainy season from July to September.

CHAPTER-III

DELINEATION OF PROPOSED AREA ON SUITABLE MAP

III (1)- GPS COORDINATES AND GPS MAP OF THE PLANTATION SITE

The area has been demarcated through GPS survey and GPS survey data showing latitude and longitude of each point and their chainage with bearing is also enclosed in the map prepared thereon.

Degraded forest land identified for plantation

The area proposed for plantation and SMC activities is enclosed as **Plate No. II.**

COORDINATES OF PROPOSED AREA FOR PLANTATION(PATCH-I: 0.808 HA)			
POINT	GEOGRAPHIC COORDINATES		REMARKS
	LONGITUDE	LATITUDE	
P-1	85°25'49.74"E	21°57'58.35"N	506.555
P-2	85°25'52.07"E	21°57'58.60"N	
P-3	85°25'51.64"E	21°58'2.53"N	
P-4	85°25'53.42"E	21°58'2.35"N	
P-5	85°25'53.40"E	21°57'58.12"N	
P-6	85°25'50.13"E	21°57'57.18"N	

COORDINATES OF PROPOSED AREA FOR PLANTATION(PATCH-II: 0.765 HA)			
POINT	GEOGRAPHIC COORDINATES		REMARKS
	LONGITUDE	LATITUDE	
P-1	85°25'39.07"E	21°58'17.07"N	471.582 Mtr.
P-2	85°25'38.01"E	21°58'18.36"N	
P-3	85°25'37.62"E	21°58'19.40"N	
P-4	85°25'37.40"E	21°58'20.31"N	
P-5	85°25'37.23"E	21°58'22.78"N	
P-6	85°25'37.36"E	21°58'23.78"N	
P-7	85°25'38.06"E	21°58'23.76"N	
P-8	85°25'38.93"E	21°58'20.42"N	
P-9	85°25'39.80"E	21°58'17.08"N	

COORDINATES OF PROPOSED AREA FOR PLANTATION(PATCH-III: 1.279 HA)			
POINT	GEOGRAPHIC COORDINATES		REMARKS
	LONGITUDE	LATITUDE	
P-1	85°25'33.92"E	21°58'25.73"N	479.563
P-2	85°25'32.54"E	21°58'31.02"N	
P-3	85°25'35.88"E	21°58'31.44"N	
P-4	85°25'36.08"E	21°58'28.78"N	
P-5	85°25'35.79"E	21°58'27.35"N	
P-6	85°25'35.38"E	21°58'25.91"N	

COORDINATES OF PROPOSED AREA FOR PLANTATION(PATCH-IV: 2.339 HA)			
POINT	GEOGRAPHIC COORDINATES		REMARKS
	LONGITUDE	LATITUDE	
P-1	85°25'12.61"E	21°58'49.20"N	776.807 Mtr.
P-2	85°25'11.67"E	21°58'52.22"N	
P-3	85°25'20.95"E	21°58'54.29"N	
P-4	85°25'22.87"E	21°58'51.41"N	

CHAPTER- IV

AGENCY RESPONSIBLE FOR PLANTATION OVER 5.191 Ha.

IV (1) - AGENCY RESPONSIBLE FOR PLACEMENT OF FUNDS

The user agency shall provide funds to carry out plantation as per approved scheme. The funds are to be deposited in CAMPA Account by the User Agency.

The Territorial Wing of the Forest Department i.e. Divisional Forest Officer, Keonjhar Division shall be assigned with the task for execution of plantation work.

CHAPTER- V

DETAILS OF WORK SCHEDULE PROPOSED OVER 5.191 HA

A. PLANTING PLAN: Planting Plan reflects the species specific treatment of the identified site. Choice of species is based on the geo-morphology of the site, soil-texture, structure, fertility and depth, proneness of the site to water logging etc.

Species to be planted:-

1. *Syzgium cumini* (Jamu)
2. *Adina cardifolia* (Kuruma)
3. *Anogeissu slatifolia* (Dhaura)
4. *Dalbergia sissoo* (Sissoo)
5. *Azadirrachta indica* (Neem)
6. *Gmelina arborea* (Gambar)
7. *Terminalia chebula* (Harida)

ANR Plantation over 5.191 ha will be carried out @ 200 plants per Ha. The cost norm of ANR 200 plants per ha is enclosed as Annexure-I. Besides, SMC activities has been proposed over 74.402 ha of MDF area within 100 mtr perimeter from the ML boundary is to be executed as per the cost norm enclosed at Annexure-III.

B. PRE-PLANTING OPERATION

B (I)-RAISING OF PLANTATION STOCK- NURSERY

Nursery will be raised including seedlings for 10% causality replacement i.e. 220 seedlings per hectare will be raised.

B (II)-SURVEY, DEMARCATION & PILLAR POSTING, GPS READING WITH MAPPING-

The planting area has been surveyed and demarcated with four feet height RCC pillars at inter visible distance with GPS coordinates, forward and backward bearing, pillar No. and distance between pillars inscribed in it. A GPS map in the scale of 1:6000 has been prepared along with GPS co-ordinates.

C. PLANTING OPERATION

Planting of seedlings will be taken up in the month of July. The polythene covering the ball of earth will be carefully removed before planting. Care will be taken to see that the ball of earth is not broken while doing so. The seedling with the ball of earth will then be placed firmly in the pit and buried at such a depth that the root collar is well below the surface of the soil. The soil around the plant will be well compacted with the heel as a final step so that there is a proper bond between the plant and the surrounding soil. The earth close to the collar will be slightly elevated so that rain water does not accumulate very close to the plant.

D. POST PLANTING OPERATION

D (1) CASUALTY REPLACEMENT

The entire area will be gone over in the same order as plantation was carried out and casualties, if any, will be replaced as soon as the main plantation operation is over.

D (2) WEEDING AND SOIL WORKING

Regular and efficient weeding will start immediately in the month of Aug- Sept.

D (3) MANURING AND INSECTICIDE APPLICATION

On degraded sites urban compost or farmyard manure, wherever available, will be added to the soil while refilling the pits. As regards artificial fertilizers, the minerals required and dosage will be applied in the month August to September as per the schedule and dosage provided in the Cost Norm.

D (4) PROTECTION AGAINST FIRE AND GRAZING

Fire line tracing will be ensured to protect the plantation from fire and watch & ward will be provided as per the approved norm for protecting the plantation & protect the plant site from grazing by domestic animals using Bamboo Twig fencing around the plantation site over an area 2235 Rmt. Cost norm of Bamboo Twig fencing is enclosed Annexure-II.

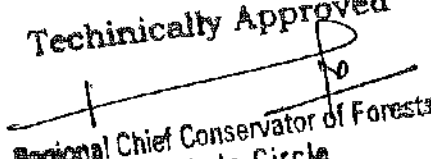
CHAPTER-VI

REQUIREMENT OF FUNDS

In order to implement all the prescriptions outlined above, Rs 46,81,200.00 (Rupees forty six lakh eight one thousand two hundred) only will be required as detailed below.

Sl.No	Particulars	Amount in Rs
1.	ANR plantation over 5.191 ha @ 200 plants/Ha with 10 years maintenance amounting to Rs. 111286/- per Ha (5.191 x Rs 111286/-).	5,77,685.63
2	Bamboo twigs continuous fencing @Rs.115725.00/- per 250 Rmt over 2235 Rmt including maintenance. {Rs. 115725 x 8.94 (2235/250)}	10,34,581.50
3	SMC activities over 74.402 ha of MDF area amounting to Rs 41248/- per Ha.	30,68,933.70
	TOTAL PLANTATION COST	Rs 46,81,200.83 Or Rs 46,81,200.00

(Rupees forty six lakh eight one thousand two hundred) only

Technically Approved

Regional Chief Conservator of Forests
Rourkela Circle


Divisional Forest Officer,
Keonjhar Division

CHAPTER-VII

PROVISION OF FUNDS AND FUND UTILIZATION

Rs 46,81,200.00 (Rupees forty six lakh eight one thousand two hundred) only shall be deposited by M/s OMC Ltd. on approval of the scheme to the Ad-hoc CAMPA Account and the funds will be utilized for raising plantation over 5.191 ha of Open Forest area and implementation of SMC activities over 74.402 ha of MDF and VDF area by the Divisional Forest Officer, Keonjhar Division on allotment by the Principal Chief Conservator of Forests, Odisha, Bhubaneswar.


Divisional Forest Officer,
Keonjhar Division

Base Cost Norm For Compensatory Afforestation through Aided Natural Regeneration (ANR)@200 Seedlings/ Ha. (18 months old seedling)						
Sl. No.	Items of work	Preferable Period of Execution	No. of Mandays	Labour Cost (in Rs.)	Material Cost (in Rs.)	Total Cost (in Rs.)
1	2	3	4	5	6	7
0th Year (Advance Work) Pre-Planting Operation						
1.	Survey, demarcation and Pillar posting	Nov/Dec	2	622	0	622
2.	Preparation of Treatment Map (Digital Map)	Nov/Dec	1	311	100	411
3.	Site preparation	Nov/Dec	2	622	0	622
4.	Silvicultural operations including clearance of weed, cutting of climber, High stump cutting, singling of shoots & removal of cut out after drying from the field to blank space	Jan/Feb	15	4665	0	4665
5.	Alignment and stacking for digging of pits	Feb/Mar	0.5	156	0	156
6.	Digging of pits (45 cm x 45 cm x 45 cm) in hard and gravelly soil	Feb/Mar	8	2488	0	2488
	Total		28.5	8863.5	100.0	8963.5
1st Year/ Planting Year						
1.	Refilling of pits by altering the dug-out soil of the pits, application of Organic compounds/ CDM/ FYM & mixing the same properly.	Jun/Jul	1.5	466.5	1000	1467
2.	Transportation of 18 months old polythene bag seedlings in hired truck/ tractor from the permanent/ Mega nursery to planting site including Loading & unloading. (Average lead of 10 Rkm) & Stacking the seedling @ Rs. 6/- per Seedling. (220 nos.)	Jul/Aug	0	0	1320	1320
3.	Watering the polythene bag seedlings at stacking site plantation	Jul/Aug	0.5	155.5	0	156
4.	Conveyance of polythene bag seedlings on head load from the stacking site to individual dugout pits within the planting site, applying insecticide, fertilizers & planting after scooping the soil with other applied materials & pressing the soil properly around the planted seedlings.	Jul/Aug	4.5	1399.5	0	1400
5.	Cost of Fertilizer & Insecticide (a) NPK/ Bio-fertilizer @ 50 gms/ plant as basal dose = 10 kg @ Rs. 30/- per kg = Rs. 300.0 (b) Urea/ Vermicompost/ Mo Khata/ any other fertilizer @ Rs. 150.00 (c) Insecticide/ Bio-pesticide @ 5 gms/ plant = 1 kg @ Rs. 150/- per kg = Rs. 150/-	Jul/Aug	0	0	600	600
6.	Casualty Replacement @ 10% (20 nos.)	Jul/Aug	0.5	156	0	156
7.	1 st weeding & Manuring	Aug/Sept	2	622	0	622
9.	2 nd Weeding, Soil working (1mt. diameter around the plants) and Manuring.	Oct/Nov	3	933	0	933
9.	Fire line tracing & inspection path.	Feb/Mar	3	933	0	933
10.	Watch & Ward including watering as per requirement	Aug-Mar	8	2488	0	2488
	TOTAL		23	7153	2920	10073
2nd Year Maintenance						
1.	Transportation of 20 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs. 6/- per seedlings	Jul	0	0	120	120
2.	Planting for causality replacement	Jul	0.5	155.5	0.0	155.5
3.	Cost of Fertilizer & Insecticide A) Cost of Insecticide/ Bio-pesticide (Themet/ forate) @ 5 gms/plant = 0.1 Kg @ Rs. 150/- per kg = Rs. 15/- B) Urea/ NPK/ Bio-fertilizer/ Vermicompost/ Mo Khata/ any other fertilizer @ Rs. 560/-	Jul	0	0	575	575
4.	Weeding (Complete weeding), Manuring & Soil working (1mt. diameter around the plants)	Sept/Oct	4	1244	0.0	1244

5.	Fire line tracing (2 m. wide fire line over 400 m long) & inspection path	Feb/Mar	3	933	0.0	933
6.	Watch & Ward including watering as per requirement	Apr-Mar	18	3732	0.0	3732
	TOTAL		19.5	6064.5	695.0	6759.5
Sl. No.	Items of work	Preferable Period of Execution	No. of Mandays	Labour Cost (in Rs.)	Material Cost (in Rs.)	Total Cost (in Rs.)
3rd Year Maintenance						
7.	Cost of Fertilizer- Urea/ NPK/ Bio-fertilizer/ Vermicompost/ Mo Khata/ any other fertilizer= Rs. 560/-	Sept/Oct	0	0	560	560
8.	Weeding (Complete weeding), Manuring & Soil working (1mt. diameter around the plants)	Aug/Sept	4	1244	0	1244
9.	Fire line tracing (2 m wide fire line over 400 m long) & inspection path	Feb/Mar	3	933	0	933
10.	Watch & Ward including watering as per requirement	Apr/Mar	12	3732		3732
	Total		19.0	5909.0	560.0	6469.0
4th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m long) & inspection path	Feb/Mar	3	933	0	933
2	Watch & Ward including watering as per requirement	Apr-Mar	12	3732	0	3732
	Total		15	4665	0	4,665
5th Year Maintenance						
	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2	Watch & Ward including watering as per requirement	Apr-Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0	4665
6th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933.0
2.	Watch & Ward including watering as per requirement	Apr-Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0
7th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2.	Watch & Ward including watering as per requirement	Apr-Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0
8th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2.	Watch & Ward including watering as per requirement	Apr-Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0
9th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2.	Watch & Ward including watering as per requirement	Apr-Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0
10th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933	0	933
2.	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0

Year wise Abstract of Cost Norm (Showing seedling cost separately)							
Sl. No.	Year	No. person days	Labour Cost @ Rs. 311/- per day	Material Cost (in Rs.)	Monitoring Evaluation, Learning, Documentation and Other Contingency (5%) of (4+5)	Cost of Seedlings @ Rs. 50.31 per seedlings	TOTAL COST
1.	0 th Year	28.5	8863.5	100	436.50	0.00	9400.0
2.	1 st Year	23.0	7153.0	2920	427.00	11068.00	21568.0
3.	2 nd Year	19.5	6064.5	695	240.50	1006.00	8006.0
4.	3 rd Year	19.0	5909.0	560	231.00	0.00	6700.0
5.	4 th Year	15.0	4665.0	0	135.00	0.00	4800.0
6.	5 th Year	15.0	4665.0	0	135.00	0.00	4800.0
7.	6 th Year	15.0	4665.0	0	135.00	0.00	4800.0
8.	7 th Year	15.0	4665.0	0	135.00	0.00	4800.0
9.	8 th Year	15.0	4665.0	0	135.00	0.00	4800.0
10.	9 th Year	15.0	4665.0	0	135.00	0.00	4800.0
11.	10 th Year	15.0	4665.0	0	135.00	0.00	4800.0
Total		195.0	60645.0	4275.0	2280.0	12074	79274.0

Matrix for ANR Plantation for Compensatory Afforestation @ 200 Seedlings/Ha with 10 year maintenance

In Rupees

Sl. No.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost
	Base Norm	9400	21568	8006	6700	4800	4800	4800	4800	4800	4800	4800											
1	2021-22	9400	22646	8826	7256	5834	6126	6432	6754	7092	7446	7819											96131
2	2022-23		9870	23778	9287	8144	6126	6432	6754	7092	7447	7819	8210										100938
3	2023-24			10364	24967	9730	8551	6432	6754	7092	7447	7819	8209	8621									105986
4	2024-25				10662	26215	10217	8979	6754	7092	7447	7819	8210	8619	9052								111286
5	2025-26					11426	27526	10728	9428	7092	7447	7819	8210	8621	9050	9505							116852
6	2026-27						11997	28802	11264	9898	7447	7819	8210	8621	9052	9503	9980						122694
7	2027-28							12597	30347	11827	10394	7819	8210	8621	9052	9505	9976	10479					128829
8	2028-29								13227	31864	12418	10914	8210	8621	9052	9505	9980	10477	11003				135271
9	2029-30									13888	33457	13039	11460	8621	9052	9505	9980	10479	11001	11553			142035
10	2030-31										14582	35130	13691	12033	9052	9505	9980	10479	11003	11551	12131		149137

Fencing for Compensatory Plantation raised inside the Forest Area using Bamboo Twigs & Thorns						
WAGE RATE Rs. 311/- PER DAY						
Sl. No.	Items of work	Preferable Period of Execution	Man days	Wages	Material Cost (Rs.)	Total Cost (Rs. per Ha.)
0th Year (Advance Work)						
1	Nil		0	0	0	0
1st Year Maintenance						
2	Taking an average perimeter of 250 Rmt/Ha. @ 93.85/ mt. (Half bundle Bamboo Twigs/ mt. @ 120/ Bundle) Labour Material = 40.60 (approx)	Sept/Oct	30	9330	14133	23463.0
3	Bamboo poles of 8 height at a distance of 2 mt. spacing to be fixed (2" under soil & 2" above soil) 250/2 = 125 + 1 = 126 Nos. of Bamboo Poles 1 Bamboo (approx) 24" height = 3 poles 126/3=42 Bamboos @ 200/ Bamboo	Sept/Oct		0	8400	8400.0
4	Preparation of Bamboo poles, Digging of holes of 2 ft. depth & fixing Bamboo poles @ 20 poles/MD	Sept/Oct	6.5	2021.5		2021.5
5	Cost of Bamboo for being the Bamboo twigs row fence with double side two strand Bamboo batten (One 6" above ground and other one 4 ft. above ground) (250x2)/24=21 Bamboo @ 200/Bamboo	Sept/Oct		0	4200	4200.0
6	Making Bamboo batten, Finishing the Batten & Tying the same on double strand up Coir rope etc. @ Rs. 11/ Rmt.	Sept/Oct	9	2799		2799
7	Cost of coir rope @ Rs. 0.125 kg/ Rmt. 500x0.125 kg = 62.5 kg @ Rs. 70/Kg	Sept/Oct		0	4375	4375.0
8	Making one Bamboo Twigs gate with Bamboo frame			0	500.5	500.5
TOTAL			45.5	14150.5	31608.5	45579.50
2nd Year Maintenance						
9	Repair & Maintenance of Bamboo Twigs fence including Material cost	Feb./Mar	20	6220	1500	7720
Rate per running mt. 7720/250 = 30.88 or say Rs. 31-Rmt.						
3rd Year Maintenance						
10	Repair & Maintenance of Bamboo Twigs fence including Material cost.	Feb./Mar	20	6220	5675	11895
Rate per running mt. 11895/250=47.58 or say Rs. 48 Rmt.						
4th Year Maintenance						
11	Repair & Maintenance of Bamboo Twigs fence including Material cost	Feb./Mar	20	6220	5673	11895
Rate per running mt. 11895/250=47.58 or say Rs. 48 Rmt.						
5th Year Maintenance						
12	Repair & Maintenance of Bamboo Twigs fence including Material cost	Feb./Mar	20	6220	5673	11895
Rate per running mt. 11895/250=47.58 or say Rs. 48 Rmt.						

Abstract					
Sl. No.	Year	No. person days	Labour Cost @ Rs. 311/- per day	Material Cost	Total Cost (Rs.)
1	0 th Year	0.0	0.0	0.0	0.0
2	1 st Year	45.5	14150.5	31608.5	45759.00
3	2 nd Year	20.0	6220	1500.0	7720.00
4	3 rd Year	20.0	6220	5675.0	11895.00
5	4 th Year	20.0	6220	5675.0	11895.00
6	5 th Year	20.0	6220	5675.0	11895.00
Total		125.5	39030.50	50133.50	89164.00

Matrix for Fencing Model F-1 (Bamboo Twig)

In Rupees

Sl. No.	Commence ment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
	Base Norm	0	45759	7720	11895	11895	11895											
1	2021-22	0	48047	8511	13770	14458	15181											99967
2	2022-23		0	50449	8937	14459	15181	15940										104966
3	2023-24			0	52971	9384	15182	15940	16737									110214
4	2024-25				0	55620	9853	15941	16737	17574								115725
5	2025-26					0	58401	10346	16738	17574	18453							121512
6	2026-27						0	61321	10863	17575	18453	19376						127588
7	2027-28							0	64387	11406	18454	19376	20345					133968
8	2028-29								0	67606	11976	19377	20345	21362				140666
9	2029-30									0	70986	12575	20346	21362	22430			147699
10	2030-31										0	74535	13204	21363	22430	23552		155084

SMC Works Model-C			
Cost Norms for creation of Compensatory Afforestation with stabilization of Soil & Conservation of Moisture (1000 Plants/ Ha).			
Sl. No.	Items of work	Preferable Period of Execution	Total Cost
0th Year (Pre-Planting Operation)			
7.	Nil		0
1st Year			
8.	Soil Conservation measure structures like Staggered Trench, Percolation pit, Contour trench, Graded earthen bund, LB CD, Wire mesh LB CD, Sub surface Dyke & WHS as per the slope & site requirement on LS	Apr/Sept	20,215
2nd Year			
9.	Maintenance of SMC structures @ 15 % of initial year cost	Apr/Jul	3,032
3rd Year			
10.	Maintenance of SMC structures @ 15 % of initial year cost	Apr/Jul	3,032
4th Year			
11.	Maintenance of SMC structures @ 15 % of initial year cost	Apr/Jul	3,032
4th Year			
11.	Maintenance of SMC structures @ 15 % of initial year cost	Apr/Jul	3,032
Total			32,343.0

ABSTRACT

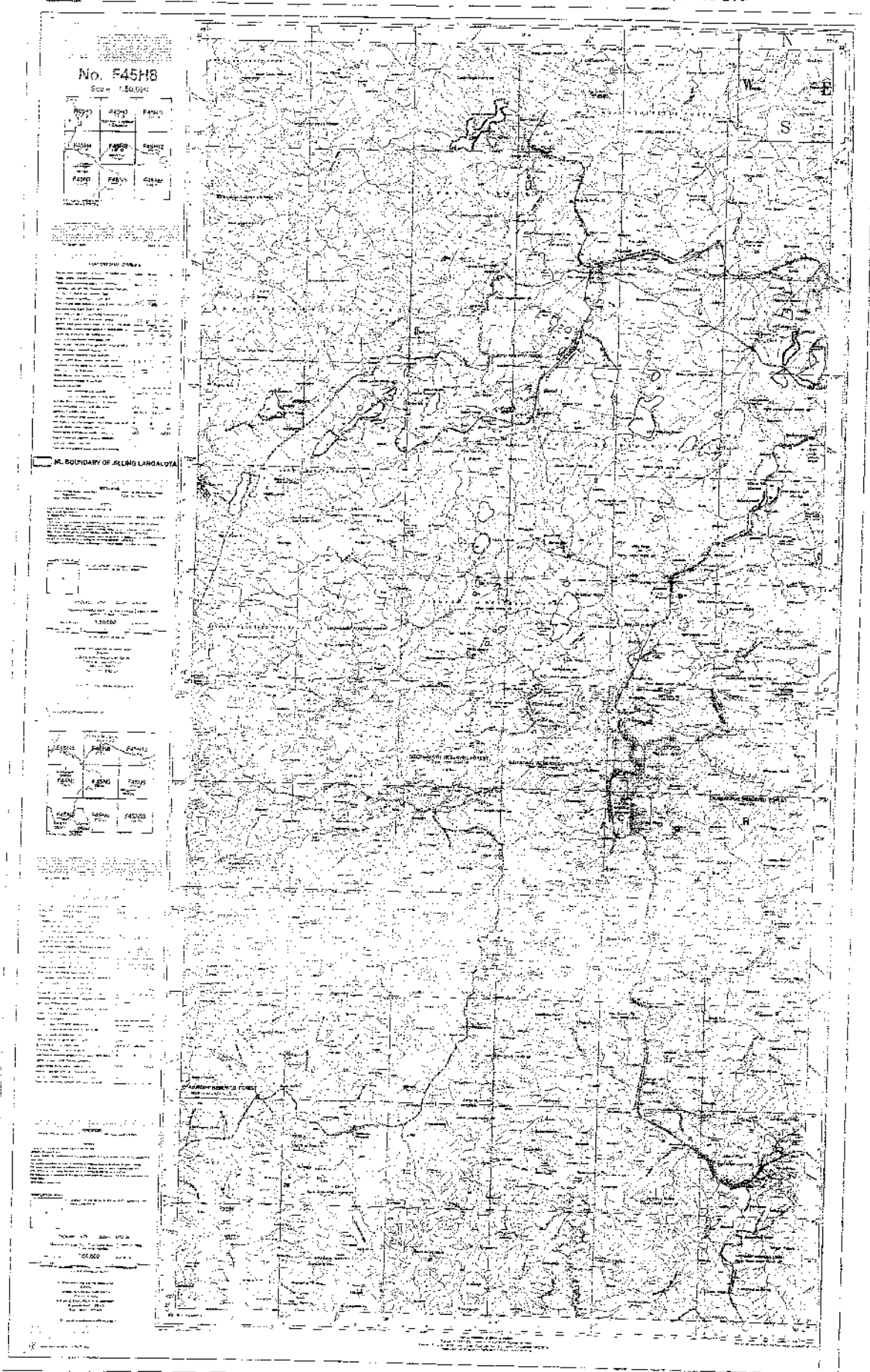
Sl. No.	Year	No. person days	Labour Cost @ Rs. 311/- per day	Material Cost	Total Cost (Rs). Considered in the Matrix
1.	0 th Year	0.0	0.0	0.0	0.0
2.	1 st Year	0.0	0.0	20,215.0	20,215.00
3.	2 nd Year	0.0	0.0	3,032.00	3,032.00
4.	3 rd Year	0.0	0.0	3,032.00	3,032.00
5.	4 th Year	0.0	0.0	3,032.00	3,032.00
6.	5 th Year	0.0	0.0	3,032.00	3,032.00
Total		0.00	0.00	32,343.0	32,343.0

Matrix for (SMC)

Sl. No.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
	Base Norm	0	20215	3032	3032	3032	3032											
1	2021-22	0	21226	3342	3510	2685	3870											35633
2	2022-23		0	22287	3509	3686	3869	4064										37415
3	2023-24			0	23401	3684	3870	4062	4267									39284
4	2024-25				0	34571	3868	4064	4265	4480								41248
5	2025-26					0	25800	4061	4267	4478	4704							43310
6	2026-27						0	27090	4264	4480	4702	4939						45475
7	2027-28							0	28445	4477	4704	4937	5186					47749
8	2028-29								0	29867	4701	4939	5184	5445				50136
9	2029-30									0	31360	4636	5186	5443	5717			52642
10	2030-31										0	32928	5183	5445	5715	6003		55274

In Rupees

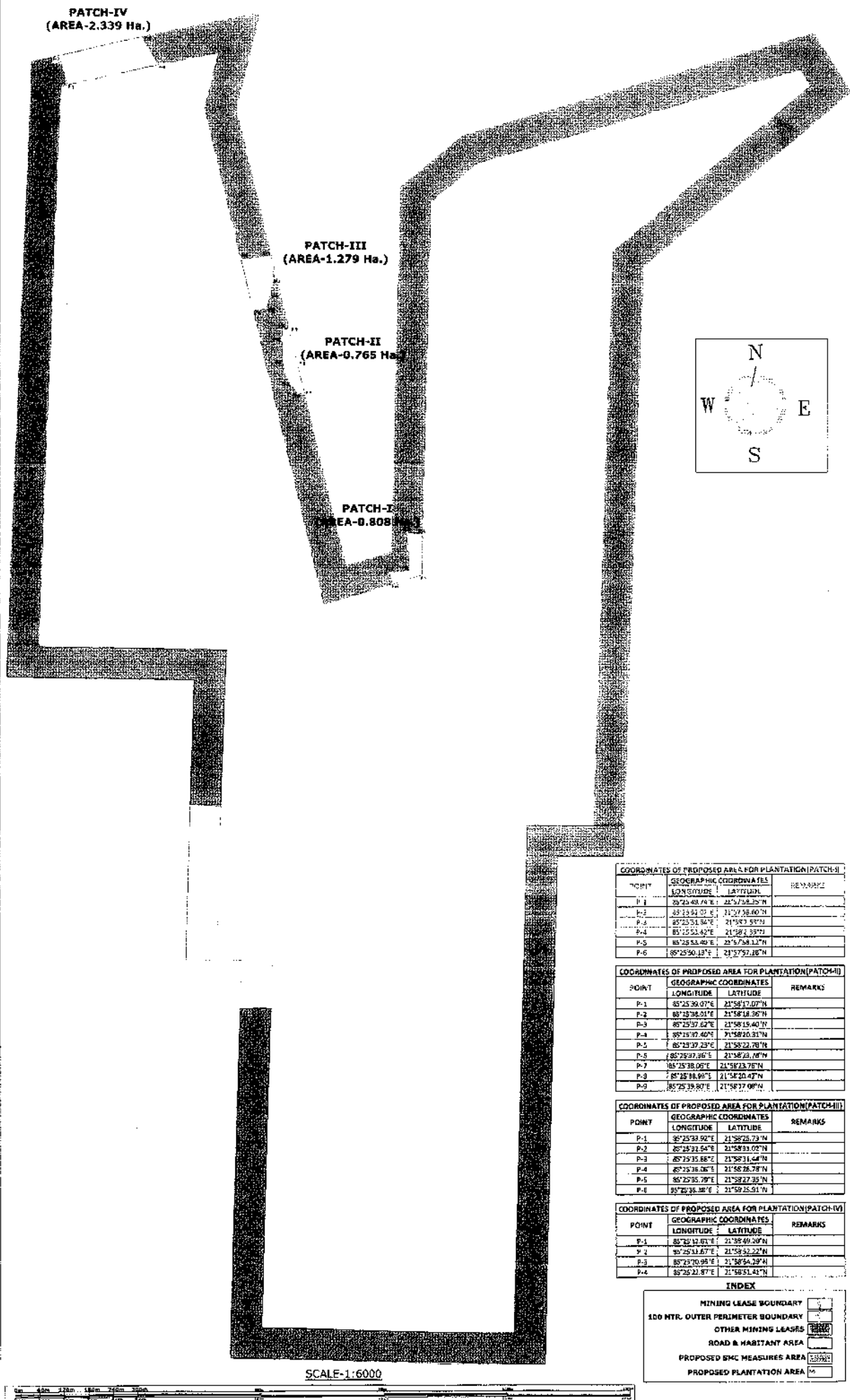
KEY PLAN SHOWING THE PROPOSED GAP PLANTATION AREA & SMC ACTIVITY WITHIN 100 MTR. OUTER PERIMETER OF THE JILLING LANGALOTA IRON ORE MINES, OMC LTD



INDEX

MINING LEASE BOUNDARY
100 MTR. OUTER PERIMETER BOUNDARY
PROPOSED SMC MEASURES AREA
PROPOSED PLANTATION AREA

MAP SHOWING THE PROPOSED GAP PLANTATION AREA & SMC ACTIVITY WITHIN 100 MTR. OUTER PERIMETER OF THE JILLING LANGALOTA IRON ORE MINES, OMC LTD



COORDINATES OF PROPOSED AREA FOR PLANTATION (PATCH-I)		
POINT	GEOGRAPHIC COORDINATES	
	LONGITUDE	LATITUDE
P-1	85°23'03.02"E	21°58'12.00"N
P-2	85°23'48.74"E	21°57'58.25"N
P-3	85°23'51.02"E	21°57'58.60"N
P-4	85°23'51.30"E	21°58'01.55"N
P-5	85°23'51.42"E	21°58'01.33"N
P-6	85°23'53.40"E	21°57'58.12"N
P-6	85°23'50.18"E	21°57'57.18"N

COORDINATES OF PROPOSED AREA FOR PLANTATION (PATCH-II)		
POINT	GEOGRAPHIC COORDINATES	
	LONGITUDE	LATITUDE
P-1	85°23'59.07"E	21°58'12.07"N
P-2	85°23'58.01"E	21°58'18.30"N
P-3	85°23'57.62"E	21°58'15.40"N
P-4	85°23'57.40"E	21°58'00.31"N
P-5	85°23'57.23"E	21°58'22.78"N
P-6	85°23'57.86"E	21°58'23.88"N
P-7	85°23'58.06"E	21°58'23.76"N
P-8	85°23'58.66"E	21°58'20.47"N
P-9	85°23'59.87"E	21°58'17.08"N

COORDINATES OF PROPOSED AREA FOR PLANTATION (PATCH-III)		
POINT	GEOGRAPHIC COORDINATES	
	LONGITUDE	LATITUDE
P-1	85°23'58.92"E	21°58'25.03"N
P-2	85°23'58.54"E	21°58'33.02"N
P-3	85°23'58.65"E	21°58'31.64"N
P-4	85°23'58.06"E	21°58'28.78"N
P-5	85°23'58.79"E	21°58'27.35"N
P-6	85°23'58.38"E	21°58'25.91"N

COORDINATES OF PROPOSED AREA FOR PLANTATION (PATCH-IV)		
POINT	GEOGRAPHIC COORDINATES	
	LONGITUDE	LATITUDE
P-1	85°23'51.61"E	21°58'49.20"N
P-2	85°23'51.67"E	21°58'52.22"N
P-3	85°23'50.95"E	21°58'54.29"N
P-4	85°23'52.87"E	21°58'51.43"N



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION
Ph. No. 06766-254315, E.mail- dfo.keonjhar@odisha.gov.in

Letter No. 3598
Dated, Keonjhar the

/6F-Mining-19/2024
3rd May 2024

To

The Executive Director (F&E),
M/s OMC Ltd, OMC House,
Bhubaneswar- 751001

Sub:

Proposal for diversion of 22.697 ha Sabik Kissam forest land within the total mining lease area of 456.037 ha (As per DGPS Survey) of Jilling-Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District.

X-Sub:

Demand of funds towards approved cost for the Scheme of Gap Planting and Soil and Moisture Conservation Activities to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of the mining lease.

Ref:


Memo No.1824 dated 30.04.2024 of Regional Chief Conservator of Forests, Rourkela Circle, Rourkela.

Sir

With reference to the aforementioned letter on the captioned subject, this is to intimate that, in complying to the condition No.11 of Stage-I approval order dated 09.02.2024 of MoEF&CC, GoI, New Delhi, the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela has technically approved the scheme for Gap Planting and Soil and Moisture Conservation Activities to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of your Jilling-Langlota Iron Ore Mines with a total financial outlay of Rs.46,81,200/- (Rupees forty six lakh eighty one thousand two hundred) only.

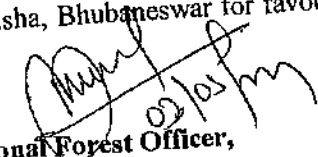
Accordingly, you are requested to deposit the approved amount of Rs.46,81,200/- (Rupees forty six lakh eighty one thousand two hundred) only in Orissa CAMPA Account through e-portal of MoEF&CC, GoI as provided in the <https://parivesh.nic.in/> and the proof/evidence of the deposit of fund be submitted to this office for further necessary action at this end.

Yours faithfully,


Divisional forest Officer,
Keonjhar Division.

Memo No. 3599 / Dated. 03.05.24

Copy submitted to the Principal Chief Conservator of Forests, Forest Diversion (FD&NO), FC Act, O/o the Principal Chief Conservator of Forests, Odisha, Bhubaneswar for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 3600 / Dated. 03.05.24

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action with reference to his memo No.1824 dated 30.04.2024.


Divisional Forest Officer,
Keonjhar Division.



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

E-mail:- nodal.pccfodisha@gmail.com

Memo No. 22873 /9F (MG) - 70/2021

Dated, Bhubaneswar the 14th November' 2024

To

The Divisional Forest Officer
Keonjhar (WL) Division, Anandapur

Sub: (i) Adjustment of compensatory levies in respect of non-forestry use of 22.697 ha forest land in respect of Jilling-Longlota Iron Ore Block within total mining lease of 456.100 ha in Keonjhar District of M/s OMC Ltd - regarding.
(ii) Adjustment of compensatory levies for grant of permission to surrender 98.731 ha out of 103.198 ha of approved forest area granted by MoEF & CC, Govt. of India over 106.016 ha of forest land pertaining to Daitari Conveyor Corridor - regarding.

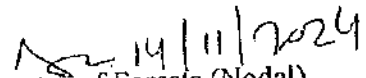
Ref: (i) Letter No. 8178/OMC/F&E/2024 dated 17.05.2024 of the Chief Vigilance Officer and Land Officer, Authorised Signatory, M/s OMC Ltd.
(ii) Your Memo No. 3698 dated 06.08.2024.

In inviting a reference to the subject cited above, it is to inform you that M/s OMC Ltd. vide letter at (i) has requested to adjust Rs 10,08,93,807/- deposited in CAMPA account due to surrender of 98.731 ha forest land in respect of diversion of 106.016 ha forest land. This amount includes the cost of SSWLCP of Rs 24,59,000/-.

The SSWLCP has been revised for Rs 2493.26125 lakh vide letter No.3126 dated 11.03.2024. In the approval letter, it has been categorically mentioned that the amount of Rs 455.65515 lakh shall be deposited in the CAMPA account as the user agency has deposited 2037.607 lakh as per approval of the previous SSWLCP. The deposited amount of Rs 20,37,60,700/- includes Rs 24,59,000/- as mentioned above. Thus, the amount to be adjusted comes to Rs.9,84,34,807/- (Rs 10,08,93,807 - Rs.24,59,000/-).

In this context, you had intimated vide letter at (ii) above, that out of total deposited amount of Rs 10,08,93,807/-, an amount of Rs 4,55,65,515/- is to be adjusted towards SSWLCP for extension of Daitari Railway Line leaving a balance amount of Rs 5,53,28,292/- unadjusted which is further to be adjusted towards compensatory levies as demanded, which is incorrect.

In view of the above, I am directed to request you to recalculate the amount to be adjusted and intimate the said figure to the DFO, Keonjhar Forest Division to enable the DFO, Keonjhar Forest Division to adjust the demanded amount from the unadjusted amount at his end.


Chief Conservator of Forests (Nodal)

Memo No. 22874

Dt 14.11.2024

Copy forwarded to the DFO, Keonjhar Forest Division for information & necessary action with reference to his Memo No. 8665 dated 25.10.2024. He is requested to adjust the demanded amount from the unadjusted amount after receiving the revised information/figure from DFO, Keonjhar (WL) Division, Anandapur.

14/11/2024

Memo No. 22875

Dt. 14.11.2024 Chief Conservator of Forests (Nodal)

Copy forwarded to the RCCF, Rourkela Circle for information & necessary action with reference to Memo No. 8666 dated 25.10.2024 of DFO, Keonjhar Forest Division.

14/11/2024

Memo No. 22876

Dt. 14.11.2024 Chief Conservator of Forests (Nodal)

Copy forwarded to the PD, STR-cum-RCCF, Baripada Circle for information & necessary action with reference to Memo No. 3700 dated 06.08.2024 of DFO, Keonjhar (WL) Division, Anandapur.

14/11/2024

Memo No. 22877

Dt. 14.11.2024 Chief Conservator of Forests (Nodal)

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.

14/11/2024

Chief Conservator of Forests (Nodal)



OFFICE OF THE
DIVISIONAL FOREST OFFICER, KEONJHAR WILDLIFE DIVISION, ANANDAPUR.
At/PO- Salapada, Dist- Keonjhar, Pin- 758020, e-mail id: dfo.keonjharwl@odisha.gov.in

Letter No. 5547/3WL (Lease)/ /2024
Dated, Anandapur the 21st November 2024.

To

The Divisional Forest Officer
Keonjhar Forest Division, Keonjhar.

Sub: -

- (i) Adjustment of Compensatory levies in respect of non-forestry use of 22.697 ha. of forest land in respect of Jilling Langalota Iron ore Block within total mining lease of 456.100 ha in Keonjhar District of OMC Ltd.-regarding.
- (ii) Adjustment of compensatory levies for grant of permission to surrender 98.731 ha out of 103.198 ha of approved forest area granted by MoEF & CC, Govt. of India over 106.016 ha of forest land pertaining to Daitari Conveyor Corridor -regarding.

Ref: -

- (i) Letter No. 8178/OMC/F&E/2024, dt. 17.05.2024 of OMC Ltd.
- (ii) This office Memo No. 3698/3WL(Lease)/2024 dt 06.08.2024.
- (iii) Memo No. 22874 dt. 14.11.2024 of the Chief Conservator of Forest (Nodal), O/o the PCCF & HoFF, Odisha, Bhubaneswar.

Sir,

In inviting a kind reference to the Letter Nos. cited above on the captioned subject, this is to inform you that, the Chief Conservator of Forest (Nodal), O/o the Principal Chief Conservator of Forests & HoFF, Odisha, Bhubaneswar vide his letter under reference has instructed the undersigned to recalculate the amount deposited in CAMPA account due to surrender of 98.731 ha of forest land in respect of diversion of 106.016 ha forest land as under:


Rs.9,84,34,807/- (Rs 10,08,93,807.00 - Rs 24,59,000.00).

Out of the above amount, an amount of Rs. 4,55,65,515/- (Rupees Four crore fifty-five lakh sixty-five thousand five hundred fifteen) only has been adjusted towards Site Specific Wildlife Conservation Plan approved for extension of Daitrai Railway line leaving a balance amount of Rs. 5,28,69,292/- (Rupees five crore twenty-eight lakh sixty-nine thousand two hundred ninety-two) only unadjusted.

In this regard, this office Memo No. under reference stands modified to the above extent and Rs. 5,28,69,292/- (Rupees five crore twenty-eight lakh sixty-nine thousand two hundred ninety-two) only may be adjusted towards compensatory levies by your good office.

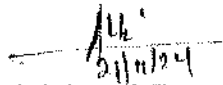
This is for favour of your kind information and necessary action.

Yours faithfully,


21/11/24
Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.

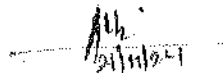
Memo No. 5548 /Date 21/11/2024 /

Copy forwarded to the Chief Conservator of Forest (Nodal),
O/o the Principal Chief Conservator of Forests & HoFF, Odisha, Bhubaneswar
for favour of kind information and necessary action with reference to his Memo
No. 22873/9F(MG)-70/2021 dt. 14.11.2024.


21/11/24
Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.

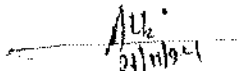
Memo No. 5549 /Date 21/11/2024 /

Copy forwarded to the Field Director, Similipal Tiger Reserve-cum-
Regional Chief Conservator of Forests, Baripada Circle, Baripada for favour of
kind information and necessary action.


21/11/24
Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.

Memo No. 5550 /Date 21/11/2024 /

Copy forwarded to the Chief Vigilance Officer and Land Officer,
Authorized Signatory of OMC for information and necessary action.


21/11/24
Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfo.keonjhar@odisha.gov.in

Memo No. 9699
Dated, Keonjhar the

/6F-Mining-19/2024
28th November, 2024

To

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

Sub:

Proposal for Diversion of 22.697 ha of Sabik Kisam Forest Land within the total mining lease area of 456.037 ha of Jilling Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District-regarding.

Ref:

1. Your Memo No.22874 dated 14.11.2024, No.18551 dated 12.09.2024 & 17325 dated 28.08.2024.
2. Memo No.5547 dated 21.11.2024 of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

This is to inform you that, during auction of Jilling-Longlota Mines, M/s OMC Ltd had deposited the lump sum amount @ 7.50 lakh per ha over the forest area involved in mining lease to the tune of Rs. 27,71,46,750/- owing to Ministry's guidelines dated 31.03.2020.

As per your memo No.17325 dated 28.08.2024 the aforesaid amount will be adjusted towards actual compensatory levies payable at the time of approval relating to the project.

Further, it is mentioned vide your memo No.22874 dated 14.11.2024 to adjust the demanded amount of this division from the unadjusted amount, of the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

Accordingly, the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur has intimated vide his memo No. 5547 dated 21.11.2024 that a sum of Rs.5,28,69,292/- are remained unadjusted, which may be adjusted towards the demanded amount of this division.

As such, the compensatory levies need to be adjusted from the above lump sum amount and unadjusted amount of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur, the details of which is depicted below:-

Sl. No.	Particulars	Amount in Rupees
1	Compensatory Afforestation against Pre-80 broken up forest land.	Rs.23,92,62,400/-
2	CA over (22.697 ha) + Gap planting.	Rs.1,87,30,000/-
3	NPV (as demanded vide this office letter No 8445 dated 17.10.2024).	Rs.2,44,30,067/-
4	Site Specific Wildlife Conservation Plan (as demanded vide this	Rs.3,23,58000/-

	office letter No 5821 dated 06.07.2024).	
	Total Compensatory levies	Rs. 31,47,80,467/-
5	Lump sum amount deposited by the UA	Rs. 27,71,46,750/-
	Balance Amount to be paid by the User Agency	Rs. 3,76,33,717/-
6	Amount adjusted from the un-adjusted amount of Rs. 5,28,69,292/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.	Rs. 3,76,33,717/-
	Balance amount to be paid	Nil

After adjustment of Rs. 3,76,33,717/-, a sum of Rs. 1,52,35,575/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur is still remain un-adjusted.

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


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9700 /Dated 28.11.2024

Copy submitted to the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur for favour of kind information and necessary action with reference to his memo No. 5547 dated 21.11.2024.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9701 /Dated 28.11.2024

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9702 /Dated 28.11.2024

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

SCHEME FOR

DE-SILTING OF VILLAGE TANKS AND OTHER WATER
BODIES LOCATED WITHIN FIVE KM FROM THE MINE
LEASE BOUNDARY SO AS TO MITIGATE THE IMPACT OF
SILTATION OF SUCH TANKS/WATER BODIES

AT

JILLING-LONGALOTA IRON ORE MINES
UNDER KEONJHAR FOREST DIVISION

OF

M/S ODISHA MINING CORPORATION LTD.
(A GOVT.OF ODISHA UNDERTAKING)
A Gold Category State PSU
OMC HOUSE, BHUBANESWAR-751001

(As per condition No. 12 of the stage-I Forest Clearance granted by
MoEF & CC, Govt. of India vide F.No.8-49/1998-FC (PT 1) dt 09.02.2024)

(ON ONE TIME COST NORM BASIS)

**SCHEME FOR DE-SILTING OF VILLAGE TANKS AND OTHER WATER BODIES
LOCATED WITHIN 5.0 KM FROM JILLING-LONGALATTA MINE LEASE BOUNDARY SO AS TO
MITIGATE THE IMPACT OF SILTATION OF SUCH TANKS/WATER BODIES**

1. INTRODUCTION

Government of India in the Ministry of Environment, Forests & Climate Change has approved the Stage-I Forest Clearance vide F. No. 8-49/1998-FC (PT 1) dtd. 09.02.2024 for diversion of 22.697 ha of forest area as on 25.10.1980 (SABIK) in Jilling-Longalatta Iron Ore Mines of OMC Ltd. In this approval, MoEF & CC has stipulated some conditions to be fulfilled before Stage-II Forest Clearance is accorded. The condition no. 12 of the Stage-I forest clearance is read as under:

"12. The User Agency shall prepare a list of existing village tanks and other water bodies with GPS co-ordinates located within five km from the mine lease boundary. This list is to be duly verified by the concerned Divisional Forest Officer. The User Agency shall regularly undertake desilting of these village 8-49/1998-FC(PT1) 1/64942/2024 tanks and other water bodies so as to mitigate the impact of siltation of such tanks/water bodies. A detailed approved plan for desilting of identified ponds and water bodies to be prepared in consultation with forest department and shall be submitted to MoEF& CC along with the compliance of 'In-principle' approval".

In compliance, a comprehensive scheme is prepared for implementation of the same by OMC within 5.0 km from the mining lease boundary of Jilling-Longalatta Mines. The mining and ancillary activities will convert this area prone to intensive soil erosion by creating reels and gullies on mined out pit benches, on the surface of O.B. dump, on the shoulder of haul roads, on the surface of the surface-soil deposit and on the bank of the natural streams. Such gullies eventually may widen and occupy large tract of the slope and cause heavy soil loss and flooding the valley bottom with heavy siltation. This results the virgin forest area prone to soil erosion. During rains, the exposed soil will not allow percolation of rainwater to charge the groundwater table. Consequently, the seasonal streams will be dried up. Therefore, it is essential to treat the area with strategic soil and moisture conservation measures to mitigate the adverse impact of mining.

2. FACTORS RESPONSIBLE FOR SILTATION

Siltation is an inherent problem with ponds, lakes and almost all types of water reservoirs world over. Siltation occurs due to deposition or settling of soil eroded from the shore line, decaying fallen leaves, grass and other vegetative materials and decomposed organic materials settled on pond bottoms. Soil erosion may be attributed as the primary factor responsible for pond siltation in this area. Higher gradient and excess rainfall are the most common reasons of soil erosion. Erosion of Soil occurs from the waste dumps, excavated areas

and naturally denuded ground surface. However, looking into the current problem of siltation of the village ponds, the major factors are the surface runoff containing silt particles entering into the pond. As the age of the ponds increases, new layers of silt accumulate on the older ones and the silt layers become thicker. Finally the depth of the pond decreases and it loses its water storage capacity. At this time it needs to be desilted to recover. The best practice against siltation is to de-silting pond bottom at regular intervals as well as taking adequate preventive measures.

3. LOCATION DETAILS

There are seven other mining leases within 5 km from outer periphery of Jilling-Longalatta Iron Ore mine. The details are given as under:

Sl. No.	Name of the lessee	Location	Area in ha	Mineral
1	M/s OMC	Bansapani	380.40	Iron ore
2	M/s KMC-27	Jalahari	28.45	Manganese ore
3	M/s KMC-12	Jlahari	12.65	Iron ore
4	M/s OMC	Balda-Paisa-Jajang	866.80	Iron ore
5	M/s T B Lal	Jajang	39.059	Iron ore
6	M/s HB Pandya	Bansapani	100.126	Iron & Manganese
7	M/s Narayani Sons	Surgutaria	95.969	Iron Ore

There are 15 Pond/water bodies available within 5 Km from boundary of the ML need de-silting as detailed below:

WATER BODY NO.	NAME OF THE VILLAGE	CORNER POINT	LATITUDE	LONGITUDE	LENGTH IN MTR.	WIDTH IN MTR.	Remarks
1	BHANGA	1	21° 57' 57.595"	85° 26' 35.705"	58	65.00	Pond
		2	21° 57' 56.968"	85° 26' 37.887"			
		3	21° 57' 55.331"	85° 26' 38.064"			
		4	21° 57' 55.450"	85° 26' 35.724"			
2	JAJANGA	1	21° 56' 43.420"	85° 26' 17.999"	27	25	Pond
		2	21° 56' 42.688"	85° 26' 18.988"			
		3	21° 56' 42.555"	85° 26' 18.508"			
		4	21° 56' 43.083"	85° 26' 17.867"			
3	GURUTUAN	1	21° 54' 55.781"	85° 27' 28.052"	91	34	Water body
		2	21° 54' 52.523"	85° 27' 26.831"			
		3	21° 54' 52.976"	85° 27' 25.687"			
		4	21° 54' 55.209"	85° 27' 26.604"			
4	KAMALPUR	1	21° 55' 40.192"	85° 27' 36.840"	40	50	Pond
		2	21° 55' 39.250"	85° 27' 38.237"			
		3	21° 55' 38.092"	85° 27' 37.699"			
		4	21° 55' 38.969"	85° 27' 36.203"			
5	KAMALPUR	1	21° 56' 49.491"	85° 27' 34.585"	49	60	Pond
		2	21° 56' 48.704"	85° 27' 36.445"			
		3	21° 56' 47.121"	85° 27' 35.786"			
		4	21° 56' 48.063"	85° 27' 34.006"			
6	GURUDARI	1	21° 58' 41.564"	85° 29' 28.529"	65	60	Pond
		2	21° 58' 40.700"	85° 29' 30.500"			

		3	21° 58' 38.836"	85° 29' 29.779"			
		4	21° 58' 39.405"	85° 29' 27.838"			
7	JODA (M)	1	21° 59' 36.041"	85° 25' 39.814"	42	34	Pond
		2	21° 59' 35.355"	85° 25' 40.812"			
		3	21° 59' 34.412"	85° 25' 39.726"			
		4	21° 59' 34.994"	85° 25' 38.845"			
8	JODA (M)	1	21° 59' 31.073"	85° 25' 39.547"	76	70	Pond
		2	21° 59' 29.456"	85° 25' 41.622"			
		3	21° 59' 27.721"	85° 25' 40.122"			
		4	21° 59' 28.634"	85° 25' 38.261"			
9	JALAHARI	1	21° 57' 42.917"	85° 24' 37.788"	45	33	Pond
		2	21° 57' 42.522"	85° 24' 38.801"			
		3	21° 57' 41.127"	85° 24' 38.221"			
		4	21° 57' 41.629"	85° 24' 37.141"			
10	KHANDBANDHA	1	21° 57' 10.310"	85° 23' 37.090"	70	50	Pond
		2	21° 57' 10.629"	85° 23' 38.425"			
		3	21° 57' 7.779"	85° 23' 38.870"			
		4	21° 57' 8.883"	85° 23' 37.016"			
11	KHANDBANDHA	1	21° 57' 11.837"	85° 23' 45.208"	35	58	Pond
		2	21° 57' 11.345"	85° 23' 47.155"			
		3	21° 57' 10.179"	85° 23' 46.752"			
		4	21° 57' 10.817"	85° 23' 44.846"			
12	JADIBAHAL	1	21° 55' 31.307"	85° 24' 54.211"	95	90	Pond
		2	21° 55' 30.967"	85° 24' 57.376"			
		3	21° 55' 27.669"	85° 24' 57.195"			
		4	21° 55' 28.492"	85° 24' 54.179"			
13	GURUDA	1	21° 55' 19.864"	85° 23' 5.500"	87	88	Pond
		2	21° 55' 19.647"	85° 23' 8.507"			
		3	21° 55' 17.024"	85° 23' 8.248"			
		4	21° 55' 16.789"	85° 23' 5.831"			
14	BALADA	1	21° 54' 27.972"	85° 24' 29.863"	48	59	Pond
		2	21° 54' 27.928"	85° 24' 31.954"			
		3	21° 54' 26.463"	85° 24' 31.933"			
		4	21° 54' 26.343"	85° 24' 29.884"			
15	NAMIRA	1	21° 54' 11.153"	85° 26' 13.773"	80	85	Pond
		2	21° 54' 10.475"	85° 26' 16.704"			
		3	21° 54' 7.721"	85° 26' 15.810"			
		4	21° 54' 8.928"	85° 26' 13.173"			

The plan showing location of village tanks/water bodies is enclosed as **Plate No. II.**

4. TOPOGRAPHY:

The ponds are mostly on plain terrain. They are situated close to habitation.

5. SOIL TYPE.

The soil is hard and lateritic. The pond silt is basically of clay, silt and sand. The silts are soft and can easily be removed. The depth of siltation as observed varies from 30 cm to 200 cm. On an average 115 cm or say 1.0 meter silt is proposed to be removed. The topo map showing the area is enclosed as **Plate No. I.**

6. METHODOLOGY FOR DE-SILTATION

Keeping in view the site condition it is proposed to take up de-siltation on a cycle of five year basis (i.e. each pond will be de-silted twice within the plan period over 10 years) particularly during summer months when the tank/water bodies are dried up with exposed silts. Removal of silts is to be done either manually or mechanically basing on ground condition and quantity of silts accumulation. Silt accumulation occurs in the basal area of the tank which is roughly estimated to be 30% less of the aerial area. The estimated quantum of silt that is required to be removed is given in the table.

During excavation, the excavated silt are to be put on the embankment of the pond with top height at least of 1.0 meter and base width 2.5 meter basing on availability of land on periphery. The soil on embankment to be compacted and two inlets and two outlet pipes are to be fixed in the embankment (6" diameter PVC pipe or Cement Pipe).

7. COST ESTIMATE:

As per schedule of rate for earth work "Earth work in excavation by mechanical means (hydraulic excavation means over areas exceeding 30 cm depth 1.5 m in width as well as 10 sqm). On plan including disposal of excavated earth lead up to 50 m and lift up to 1.5 m disposal earth to be levelled and neatly dressed etc. complete @ Rs. 66.00/cum. Basing on volume of earth work as indicated in the Table above, cost estimate has been done. In addition cost of inlet/outlet pipes, at each pond an additional cost of Rs 10000/- per tank to be added. Year wise cost factor is calculated as follows:

Sl. No	Village	Length in mtr.	Width in mtr.	Area in Sq. M.	Volume in cu.m taking the height as 1 mtr and area as 70 % of the total area	Expenditure		
						Earth work @ Rs 66.00 per cum in Rs	Inlet & outlet pipes in Rs	Total expenditure
1	BHANGA	58	65	3770	2639	174174	10000.00	184174
2	JAJANGA	27	25	675	472.50	31185	10000.00	41185
3	GURUTUAN	91	34	3094	2165.80	142942.80	10000.00	152942.8
4	KAMALPUR	40	50	200	140	9240	10000.00	19240
5	KAMALPUR	49	60	2940	2058	135828	10000.00	145828
6	GURUDARI	65	60	3900	2730	180180	10000.00	190180
7	JODA (M)	42	34	1428	999.60	65973.60	10000.00	75973.6
8	JODA (M)	76	70	5320	3724	245784	10000.00	255784
9	JALAHARI	45	33	1485	1039.50	68607	10000.00	78607
10	KHANDBANDHA	70	50	3500	2450	161700	10000.00	171700
11	KHANDBANDHA	35	58	2030	1421	93786	10000.00	103786
12	JADIBAHAL	95	90	8550	5985	395010	10000.00	405010
13	GURUDA	87	88	7656	5359.20	353707.20	10000.00	363707.2
14	BALADA	48	59	2832	1982.40	130838.40	10000.00	140838.4
15	NAMIRA	80	85	6800	4760	314160	10000.00	324160
TOTAL				54180	37926	2503116	150000.00	2653116

For de-silting twice, the estimated cost will be Rs. 2653116/- X 2 = Rs 5306232.00

Construction of one signage each in pond @ Rs 5000/- for fifteen pond = Rs 75,000.00

Total cost = Rs 53, 81,232.00 (Rs 5306232.00+ Rs 75,000.00) or say Rs 53, 81,300.00 (Rupees fifty three lakh eighty one thousand three hundred) only

8. PLANNING EXECUTION.

As indicated above de-siltation will be carried out in a five year cycle. All the ponds will be de-silted twice in the plan period once in 2024-25 and then in 2030-31.

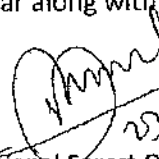
9. EXECUTING AGENCY

The user agency shall take up the project of De-siltation of Village tank/Water bodies out of project head.

10. INSPECTION AND MONITORING.

The manner of execution & periodical monitoring will be made by OMC authority. The Execution and achievements may be reviewed by the Divisional Forest Officer, Keonjhar Forest Division from time to time as possible. In case of some dispute if the earmarked tank could not be de-silted in assigned year it may be executed in the next year along with the next years programme.

Technically Approved
Regional Chief Conservator of Forests
Bourkela Circle


23/04/24
Divisional Forest Officer
Keonjhar Division

CERTIFICATE

Certified that the village tanks/water bodies available within 5.0 km from the ML boundary of Jilling-Longalatta Iron Ore Mines as per the GPS co-ordinates of the corner points of the tanks/water bodies included in the scheme for de-silting is duly verified by the undersigned.

Place: Keonjhar
Date:


23/04/24
Divisional Forest Officer
Keonjhar Division

ANNEXURE-I

LIST OF VILLAGE TANKS AND OTHER WATER BODIES WITHIN 5.0 KM RADIUS FROM THE MINING LEASE BOUNDARY OF JILLING-LONGALATTA IRON AND MANGANESE ORE MINES OF M/S ODISHA MINING CORPORATION LIMITED LOCATED IN KEONJHAR DISTRICT OF ODISHA.

WATER BODY NO.	NAME OF THE VILLAGE	CORNER POINT	LATITUDE	LONGITUDE	LENGTH IN MTR.	WIDTH IN MTR.	Remarks
1	BHANGA	1	21° 57' 57.595"	85° 26' 35.705"	58	65.00	Pond
		2	21° 57' 56.968"	85° 26' 37.887"			
		3	21° 57' 55.331"	85° 26' 38.064"			
		4	21° 57' 55.450"	85° 26' 35.724"			
2	JAJANGA	1	21° 56' 43.420"	85° 26' 17.999"	27	25	Pond
		2	21° 56' 42.688"	85° 26' 18.988"			
		3	21° 56' 42.555"	85° 26' 18.508"			
		4	21° 56' 43.083"	85° 26' 17.867"			
3	GURUTUAN	1	21° 54' 55.781"	85° 27' 28.052"	91	34	Water body
		2	21° 54' 52.523"	85° 27' 26.831"			
		3	21° 54' 52.976"	85° 27' 25.687"			
		4	21° 54' 55.209"	85° 27' 26.604"			
4	KAMALPUR	1	21° 55' 40.192"	85° 27' 36.840"	40	50	Pond
		2	21° 55' 39.250"	85° 27' 38.237"			
		3	21° 55' 38.092"	85° 27' 37.699"			
		4	21° 55' 38.969"	85° 27' 36.203"			
5	KAMALPUR	1	21° 56' 49.491"	85° 27' 34.585"	49	60	Pond
		2	21° 56' 48.704"	85° 27' 36.446"			
		3	21° 56' 47.121"	85° 27' 35.786"			
		4	21° 56' 48.063"	85° 27' 34.006"			
6	GURUDARI	1	21° 58' 41.564"	85° 29' 28.529"	65	60	Pond
		2	21° 58' 40.700"	85° 29' 30.500"			
		3	21° 58' 38.836"	85° 29' 29.779"			
		4	21° 58' 39.405"	85° 29' 27.838"			
7	JODA (M)	1	21° 59' 36.041"	85° 25' 39.814"	42	34	Pond
		2	21° 59' 35.355"	85° 25' 40.812"			
		3	21° 59' 34.412"	85° 25' 39.726"			
		4	21° 59' 34.994"	85° 25' 38.845"			
8	JODA (M)	1	21° 59' 31.073"	85° 25' 39.547"	76	70	Pond
		2	21° 59' 29.456"	85° 25' 41.622"			
		3	21° 59' 27.721"	85° 25' 40.122"			
		4	21° 59' 28.634"	85° 25' 38.261"			
9	JALAHARI	1	21° 57' 42.917"	85° 24' 37.788"	45	33	Pond
		2	21° 57' 42.522"	85° 24' 38.801"			
		3	21° 57' 41.127"	85° 24' 38.221"			
		4	21° 57' 41.629"	85° 24' 37.141"			
10	KHANDBANDHA	1	21° 57' 10.310"	85° 23' 37.090"	70	50	Pond
		2	21° 57' 10.629"	85° 23' 38.425"			

MAP SHOWING THE VILLAGE PONDS/WATER BODIES WITHIN 5 KM FROM MINING LEASE BOUNDARY OF JILLING LANGALOTA IRON ORE MINES, OMC LTD



INDEX	COMPARISON OF WATERBODIES
	POND / WATERBODY
	ML AREA
	5 KM RADIUS

SL. NO.	NAME OF THE VILLAGE	CORNER POINTS	COORDINATES	LENGTH (M)	WIDTH (M)	REMARKS
1	BALUDA	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
2	JAMARA	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
3	SUBUTARA	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
4	KHARAPUR	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
5	BALUDA	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
6	CHANDRA	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
7	JODI (N)	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
8	JODI (N)	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
9	JODI (N)	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
10	JODI (N)	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
11	JODI (N)	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
12	JODI (N)	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
13	JODI (N)	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
14	JODI (N)	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond
15	JODI (N)	1	23° 57' 30.00" N, 87° 30' 30.00" E	50	50	Pond

Asst. Commissioner of Revenue
ML, Langalota Iron Ore Mines

**SCHEME FOR
DEMARCATIION, FENCING, PROTECTION AND
AFFORESTATION**

OF

**THE SAFETY ZONE AREA OVER 1.462 HA
(7.5 MTR STRIP ALL ALONG THE INNER SIDE OF THE ML BOUNDARY)**

AT

JILLING-LONGALOTA IRONORE MINES

UNDER

KEONJHAR FOREST DIVISION

OF

M/S ODISHA MINING CORPORATION LTD.

(A GOVT.OF ODISHA UNDERTAKING)

A Gold Category State PSU

OMC HOUSE, BHUBANESWAR-751001

**(As per condition No.13 (i, ii, iii & iv) of the stage-I Forest Clearance granted by
MoEF & CC, Govt. of India vide F.No. 8-49/1998-FC (PT 1) dtd. 09.02.2024)**

(ON ONE TIME COST NORM BASIS)

SCHEME FOR FENCING, PROTECTION AND AFFORESTATION OF THE SAFETY ZONE AREA (7.5MTR STRIP ALL ALONG THE INNER SIDE OF THE ML BOUNDARY) OVER 1.462 HA AT JILLING-LONGALATA IRONORE MINES OF M/S ODISHA MINING CORPORATION LTD.

INTRODUCTION:

Government of India in the Ministry of Environment, Forests & Climate Change has approved the Stage-I Forest Clearance vide F.No. 8-49/1998-FC (PT 1) dtd. 09.02.2024 for diversion of 22.697 ha of forest area as on 25.10.1980 (SABIK) in Jilling-Longalata Iron Ore Mines of OMC Ltd. In this approval, MoEF & CC has stipulated some conditions to be fulfilled before Stage-II Forest Clearance is accorded. The condition no. 13 (i, ii, iii & iv) of the Stage-I forest clearance is read as under:

"13. Safety Zone Management: Following activities, at project cost, shall be undertaken by the user agency for the management of safety zone as per relevant guidelines issued by the Ministry's guidelines:

- i. User agency shall ensure demarcation of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its fencing, protection and regeneration by erecting adequate number of 6 feet high RCC boundary pillars inscribed with DGPS coordinates with barbed wire fencing and deploying adequate number of watchers under the supervision of the. State Forest Department;*
- ii. Boundary of the safety zone of the mining lease, adjacent to habitation/roads, should be properly fenced by the user agency;*
- iii. Safety zone shall be maintained as green belt around mining lease and to ensure dense canopy in the area, regeneration shall be taken up in this area by the user agency at project cost under the supervision of the State Forest Department; and*
- iv. The State Government and the user agency shall ensure that safety zone is maintained as per the prescribed norms;"*

In order to comply the above condition, the current scheme is formulated for fencing, protection and regeneration of safety zone area within Jilling-Longalata Iron Ore Mines. Earlier, the total safety zone area of 11.58 ha has been covered under plantation. In the current proposal the safety zone area over 1.462 ha have been considered for the forest area as on 25.10.1980 (SABIK). The scheme aims to regenerate the area by taking ANR plantation @ 500plants per hectare. The length of outer periphery of this safety zone is 1864.50 mtr and the area of safety zone is 1.462 ha. The scheme is prepared basing on one-time Cost Norm guideline issued for afforestation by PCCF (FD & NO, FC Act) vide letter dt. 08.11.2021 and 01.12.2021. As per the para-2 of the said guideline, afforestation to be prepared on "one time cost norm basis" by delinking the scheme to wage rate revision and material cost escalation for easy of doing business.

TOPOGRAPHY AND EXISTING VEGETATION:

The area under safety zone is undulatory with gentle slope. The soil is mostly lateritic. Some patches support shallow soil and even exposed rocks within the site.

PROPOSED TECHNIQUES FOR PLANTATION/REGENERATION:

It is proposed to take up ANR plantation with 500 plants per ha over the balance area of 1.462 ha.

Objective of the scheme:

The main objective of the present scheme is to take up plantation in the balance safety zone of the M.L. area so that a complete green belt around the mine is maintained which will serve the following purpose:

- i) It will be a permanent demarcation zone for the M.L. area which will be easily distinguishable.
- ii) It will help in controlling pollution to some extent near the mine.
- iii) It will provide alternate habitat to birds and animals who have lost their habitat due to mining activity.
- iv) Protect the periphery of the mine from soil erosion and land slide.
- v) It will act as a barrier from encroachment by adjoining lessee.

Item of works to be taken up:

To achieve the above objectives, the following items of works are prescribed to be taken up:

1. Maintenance through Survey & demarcation of ML boundary.
2. Maintenance of Fencing.
3. Plantation & post-planting operations.

1. Demarcation of ML boundary:

The outer periphery of the Mining Lease area and safety zone area has already been surveyed and demarcated. The RCC pillars have been maintained. The plan showing the ML area on Topo sheet is enclosed as **Plate No.I.**

2. Fencing:

To protect the plantation from grazing and other biotic interference, it will be provided with chain link wire fencing along the outer periphery over 1854.50 mtr. There will be provision of one RCC pillar erected at every 2.5 meter distance with provision of two extra cross pillars for each corner station points. There will be chain link wire fencing for better protection purpose. The cost estimate for chain link wire fencing has been provided in **Annexure-I.** There will be no fence on the inner side.

3. Planting & post-planting operations:

ANR with gap planting of 500 seedlings per ha over 1.462 ha shall be taken up. All planting & post planting measures like casualty replacement, soil working, manuring, fire protection etc. will be undertaken as given in the Cost norm for ANR with gap plantation of 500 seedlings, furnished as **Annexure-II.**

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

- ❖ Care to be taken to raise healthy seedlings of minimum 60 cm height. 10% extra seedlings are to be raised for replacement of casualty.
- ❖ Pitting shall invariably be done during November-February i.e., before onset of monsoon. If possible the soil of upper portion and lower portion of pit should be placed separately in specific direction so that while planting the pits will be filled with top-soil first.
- ❖ Planting shall be done on the onset of monsoon to get full benefit of monsoon rain and should not be delayed.
- ❖ Basal dose of 50 grams of NPK and 5 grams of Chlorpyrifos dust per plant should be applied at the time of planting carefully by mixing with top-soil so that the roots of seedlings do not come in direct contact with fertilizer.
- ❖ In case of any mortality of planted seedlings, it should be replaced with good seedlings as soon as possible for better success rate.
- ❖ Complete weeding in proper time will be done. Strip weeding will not be permitted.
- ❖ Soil-working and application of 2nd dose fertilizer of 50 gms NPK/plant should be done in time. Since the area is provided with barbed wire fence, watch & ward will be easier. Watchers may be engaged in weeding in problematic areas.

4. Spacing: The spacing adopted for the plantation in gaps is 2.5 mtr X 2.5 mtr. Alignment and pit marking should be done carefully in slopes so that the horizontal distance between plants in a row remains 2.5 mtrs and not the distance measured along the slope.

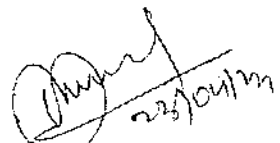
5. Species: Although indigenous species are to be preferred in the plantation, considering adverse soil & moisture conditions we may go for hardy exotic species where required so that the plants are able to survive. Considering the topography, soil and moisture availability of the plantation area, the following species will be planted.

Name of species	Common name	Remarks
<i>Acacia auriculiformis</i>	Acacia	
<i>Azadirachta indica</i>	Neem	
<i>Derris indica</i>	Karanja	
<i>Embllica officinalis</i>	Amla	
<i>Cassia siamea</i>	Chakunda	
<i>Dalbergia sissoo</i>	Sissoo	In lower areas with good soil depth
<i>Gmelina arborea</i>	Gambhari	In lower areas with good soil depth
<i>Dendrocalamus strictus</i>	Salia bamboo	In lower areas with good soil depth healthy seedlings from rhizomes may be planted
<i>Zizyphus mauritania</i>	Ber	In rocky areas with low soil depth
<i>Ficus religiosa</i>	Pipal	
<i>Ficus benghalensis</i>	Bara	

6. **Protection of the plantation:** Chain link wire mesh fence with RCC pillars along outer periphery of the M.L. area will be provided. Few watchers will also be engaged for protection of the plantation.

7. **Total cost of the project:** Total cost of the project will be Rs 38, 50,700.00 (Rupees thirty eight lakh fifty thousand and seven hundred) only as detailed in Annexure-III.

8. **Executing agency:** Plantation over entire safety zone area has been completed except 1.462 ha over SABIK forest area. Photographs of the Safety Zone pillars, plantation already carried out are enclosed as **Annexure-IV**. The balance works are to be done inside the Mining Lease area for which it will be convenient for the User Agency to execute the work. Hence, OMC will execute the work under supervision of the State Forest Department.


Divisional Forest Officer
Keonjhar Forest Division

Fencing for Compensatory Plantation raised outside the Forest Areas using Angle Iron & Chain Link wire mesh (250 Rmt/Ha.)						
Sl. No.	Item of work	Preferable Period of Execution	Man days	Wages	Material cost	Total Cost (Rs.per Ha.)
0 th Year (PPO)						
1	Earth work (Excavation of hole) in Hard soil at a distance 3 mt. 0.40m x 0.40m=0.064 x 84=5.376 cum @ Rs.140/ cum=Rs.753.		2.42	752.62	0.0	752.6
2	Cement concrete (1:4:8) using 40 mm BHC metal 84 X 0.40m X 0.10m = 1.344@3755.94/cum		0	0	5,047.4	5,047.4
3	Angle Iron pole of size 50mm X 50 mm X 6mm of height 2.40 mt. 84 x 2.40=201.60Sqmt.@4.50/kg/Sqmt.= 907.20 kg@ 69.50 per kg				63,050.0	63,050.0
4	Cement Concrete (1:2:4) for fixing the iron angle pole using 12mm BHG Chips. 84 X 0.40m X 0.40m X 0.30m = 4.032 cum @5486.77/cum				22,123.0	22,123.0
5	Cost of Chain link mess using 4mm Dia GI wire having gap size 50mm X 50mm 250 Rmt X 2.10mt=525Sq.mt2331/Sqmt=Rs.1,73,775				1,73,775.0	1,73,775.0
6	Double cost painting of Iron angle pole over a cost of primer using good quality enamel paint 84 x 2.10 x 0.20 = 35.28sqmt. @ Rs.108.80/Sqmt				3,838.0	3,838.0
7	Painting of GI chain link mess. 250 x 2.10 x 2 = 1050/10 = 105 Sqmt. @108.80Sqmt.				11,424.0	11,424.0
8	Transportation of Chain link mess,Iron angle,Straightening & tying of chain link mess etc. @ 2% of the total cost.				5,600.0	5,600.0
	Total		2.42	752.62	2,84,857.4	2,85,610.0
Rate per running meter Rs 2,85,610/250 = Rs.1142/Rmt						
1st Year Maintenance						
1	No Maintenance is required	Sept / Oct	0	0	0	0
2nd Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
3rd Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
4th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
5th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
6th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
7th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
8th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000

9th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000
10th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1 st yr.1142 x 1% = 1142 say Rs.11	Sept / Oct	0	0	11000	11000

ABSTRACT					
SL.No	Year	No. person days	Labour cost @ Rs.311/- per days	Material Cost	Total cost (Rs.)
1	0 th year	2.42	752.6	284857.4	285610.0
2	1 st year	0.0	0.0	0.0	0.0
3	2 nd year	0.0	0.0	11000.0	11000.0
4	3 rd year	0.0	0.0	11000.0	11000.0
5	4 th year	0.0	0.0	11000.0	11000.0
6	5 th year	0.0	0.0	11000.0	11000.0
7	6 th year	0.0	0.0	11000.0	11000.0
8	7 th year	0.0	0.0	11000.0	11000.0
9	8 th year	0.0	0.0	11000.0	11000.0
10	9 th year	0.0	0.0	11000.0	11000.0
11	10 th year	0.0	0.0	11000.0	11000.0
	Total	2.42	752.62	383857.4	3,84,610.0

Matrix for Fencing model-F-II (Iron angle with Chain link wire mesh)

Sl. No.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost
	Base Year	285610	0	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000									
1	2021-22	285610	0	12126	12734	13370	14039	14740	15478	16252	17065	17918	18814										419331
2	2022-23		299891	0	12732	13371	14039	14741	15477	16252	17065	17918	18814										440299
3	2023-24			314886	0	13369	14040	14741	15478	16251	17065	17918	18813	19755									462316
4	2024-25				330630	0	14037	14742	15478	16252	17064	17918	18814	19754	20743								485432
5	2025-26					347162	0	14739	15479	16252	17065	17917	18814	19755	20742	21780							509705
6	2026-27						364530	0	15476	16253	17065	17918	18813	19755	20743	21779	22869						535191
7	2027-28							382745	0	16250	17068	17918	18814	19754	20743	21780	22868	24012					561951
8	2028-29								401883	0	17063	17919	18814	19755	20742	21780	22869	24011	25213				590049
9	2029-30									421977	0	17916	18815	19755	20743	21779	22869	24012	25212	26474			619552
10	2030-31										443076	0	18812	19756	20743	21780	22868	24012	25213	26473	27798		650531

COST NORM FOR ANR PLANTATION @ 500 PLANTS PER HECTARE WAGE RATE Rs. 311.00/- PER MANDAY

ANR Cost Norm For Compensatory Afforestation @500 Plants/ Ha. with 10 year Maintenance

Sl. No.	Items of work	Preferable Period of Execution	No. of Mandays	Labour Cost (₹)	Material Cost (₹)	Total Cost (₹)
1	2	3	4	5	6	7
0th Year (Advance Work) Pre-Planting Operation						
1.	Survey, demarcation and Pillar posting	Nov/Dec	2	622	0	622
2.	Preparation of Treatment Map (Digital Map)	Nov/Dec	1	311	100	411
3.	Site preparation	Nov/Dec	2	622	0	622
4.	Silvicultural operations including clearance of weed, cutting of climber, High stump cutting, singling of shoots & removal of cut out after drying from the field to blank space	Jan/Feb	15	4665	0	4665
5.	Alignment and stacking for digging of pits	Feb/Mar	1	311	0	311
6.	Digging of pits (45 cm x 45 cm x 45 cm) in hard and gravelly soil	Feb/Mar	20	6220	0	6220
	Total		41	12751	100	12851
1st Year/ Planting Year						
1.	Refilling of pits by altering the dug-out soil of the pits, application of Organic compounds/ CDM/ FYM & mixing the same properly.	Jun/Jul	4	1244	2500	3744
2.	Transportation of 18 months old polythene bag seedlings in hired truck/ tractor from the permanent/ Mega nursery to planting site including Loading & unloading. (Average lead of 10 Rkm) & Stacking the seedling @ Rs. 6/- per Seedling. (550 nos.)	Jul/Aug	0	0	3300	3300
3.	Watering polythene bag seedlings at stacking site of plantation	Jul/Aug	1	311	0	311
4.	Conveyance of polythene bag seedlings on head load from the stacking site to individual dugout pits within the planting site, applying insecticide, fertilizers & planting after scooping the soil with other applied materials & pressing the soil perfectly around the planted seedlings.	Jul/Aug	11	3421	0	3421
5.	Cost of Fertilizer & Insecticide (a) NPK/ Bio-fertilizer @ 50 gms/ plant as basal dose = 25 kg @ Rs. 30/- per kg = Rs. 750/- (b) Urea/ Vermicompost/ Mo Khata/ any other fertilizer @ Rs. 375/- (c) Insecticide/ Bio-pesticide @ 5 gms/ plant = 2.5 kg @ Rs. 150/- per kg = Rs. 375/-	Jul/Aug	0	0	1500	1500
6.	Casualty Replacement @ 10% (50 nos.)	Jul/Aug	1.5	466.5	0.0	466.5
7.	1 st weeding & Manuring	Aug/Sept	5	1555	0	1555
8.	2 nd Weeding, Soil working (1mt. diameter around the plants) and Manuring.	Oct/Nov	8	2488	0	2488
9.	Fire line tracing & inspection path.	Feb/Mar	3	933	0	933
10.	Watch & Ward including watering as per requirement	Aug-Mar	8	2488	0	2488
	TOTAL		41.5	12906.5	7300.0	20206.5
2nd Year Maintenance						
1.	Transportation of 50 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs. 6/- per seedlings	Jul	0.0	0.0	300.0	300.0
2.	Casualty replacement	Jul	1.5	466.5	0.0	466.5
3.	Cost of Fertilizer & Insecticide A) Cost of Insecticide/ Bio-pesticide (Themet/ foret) @ 5 gms/plant = 25 Kg @ Rs. 150/- per kg = Rs. 37.50 B) Urea/ NPK/ Bio-fertilizer/ Vermicompost/ Mo Khata/ any other fertilizer @ Rs. 1400/-	Jul/Aug	0	0	1437.5	1437.5
4.	Complete weeding, Manuring & Soil working (1mt. diameter around the plants)	Sept/Oct	8	2488	0	2488
5.	Fire line tracing (2 m. wide fire line over 400 m long) & inspection path	Feb/Mar	3	933	0	933

Sl. No.	Items of work	Preferable Period of Execution	No. of Mandays	Labour Cost (in Rs.)	Material Cost (in Rs.)	Total Cost (in Rs.)
6.	Watch & Ward including watering as per requirement	Apr/Mar	12	3732	0	3732
	TOTAL		24.5	7619.5	1737.5	9357
3rd Year Maintenance						
3.	Cost of Fertilizer- Urea/ NPK/ Bio-fertilizer/ Vermicompost/ Mo Khata/ any other fertilizer= Rs. 1400/-	July/Aug	0	0	1400.0	1400.0
4.	Complete weeding, Manuring & Soil working (1mt. diameter around the plants)	Sept/Oct	8	2488	0	2488
5.	Fire line tracing (2 m wide fire line) & inspection path	Feb/Mar	3	933	0	933
6.	Watch & Ward including watering as per requirement	Apr/Mar	12	3732	0	3732
	Total		23.0	7153.0	1400.0	8553.0
4th Year Maintenance						
1	Fire line tracing (2 m. wide fire line) & inspection path	Feb/Mar	3	933	0	933
2	Watch & Ward including watering as per requirement	Apr/Mar	12	3732	0	3732
	Total		15	4665	0	4665
5th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3.0	933.00	0	933
2	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0	4665
6th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0
7th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length) & inspection path	Feb/Mar	3	933.00	0	933
2.	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0
8th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	933.00	0	933
2.	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0
9th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward including watering as per requirement	Apr-Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0
10th Year Maintenance						
1.	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2.	Watch & Ward including watering as per requirement	Apr/Mar	12	3732.00	0	3732
	Total		15.0	4665.0	0.0	4665.0

Year wise Abstract of Cost Norm (Showing seedling cost separately)							
Sl. No.	Year	No. of Mandays	Labour Cost @ ₹ 311/- per day	Material Cost (₹)	MELD and Other Contingency 5% of (4+5)	Cost of Seedlings @ ₹ 50.31 per Seedlings	Total Cost (₹)
1.	0 th Year	41	12751.0	100.0	549.00	0.00	13400.00
2.	1 st Year	41.5	12906.5	7300.0	993.50	27671.00	48871.00
3.	2 nd Year	24.5	7619.5	1737.5	443.00	2516.00	12316.00
4.	3 rd Year	23.0	7153.0	1400.0	347.00	0.00	8900.00
5.	4 th Year	15	4665.0	0.0	135.00	0.00	4800.00
6.	5 th Year	15	4665.0	0.0	135.00	0.00	4800.00
7.	6 th Year	15	4665.0	0.0	135.00	0.00	4800.00
8.	7 th Year	15	4665.0	0.0	135.00	0.00	4800.00
9.	8 th Year	15	4665.0	0.0	135.00	0.00	4800.00
10.	9 th Year	15	4665.0	0.0	135.00	0.00	4800.00
11.	10 th Year	15	4665.0	0.0	135.00	0.00	4800.00
Total		235.0	73085.0	10537.5	3277.5	30187	117087.00

Matrix for Model-II A (ANR-500 Plants/Ha.)

In Rupees

Sl. No.	Commencement Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost (10 Yrs)
	Base Norm	13400	48871	12315	8900	4800	4800	4800	4800	4800	4800	4800											
1	2021-22	13400	51315	13577	10303	5834	6126	6432	6754	7092	7446	7819											136098
2	2022-23		14070	53881	14256	10818	6126	6432	6754	7092	7447	7818	8210										142904
3	2023-24			14774	56575	14969	11359	6432	6754	7092	7447	7819	8209	8621									150051
4	2024-25				15513	59404	15717	11927	6754	7092	7447	7819	8210	8619	9052								157554
5	2025-26					16289	62374	16503	12523	7092	7447	7819	8210	8621	9050	9505							163433
6	2026-27						17103	65493	17328	13149	7447	7819	8210	8621	9052	9503	9980						173705
7	2027-28							17958	58768	18194	13806	7819	8210	8621	9052	9505	9978	10479					183390
8	2028-29								18856	72206	19104	14496	8210	8621	9052	9505	9980	10477	11003				191510
9	2029-30									19799	75816	20059	15221	8621	9052	9505	9980	10479	11001	11553			201086
10	2030-31										20789	79607	21062	15982	9052	9505	9980	10479	11003	11551	12131		211141

TOTAL FINANCIAL OUTLAY

Sl. No.	Work to be done	Estimated Expenditure (Rs)
1.	Chain link weir mesh fencing of safety zone over 1864.50 meter @ Rs.485432/-per 250 mtr = $\{(485432/250) \times 1864.50 \text{ mtr}\}$.	Rs 36,20,351.86
2	ANR plantation @500 plants/Ha over 1.462 ha @ Rs.1,57,554/- per ha.	Rs 230343.95
	Total	Rs 38,50,695.81 Or Say Rs 38,50,700.00

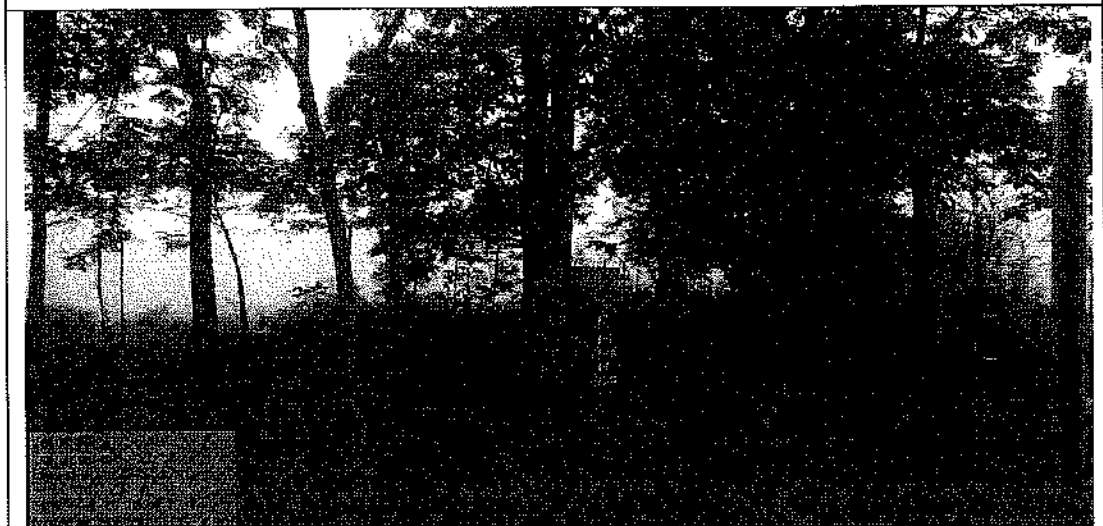
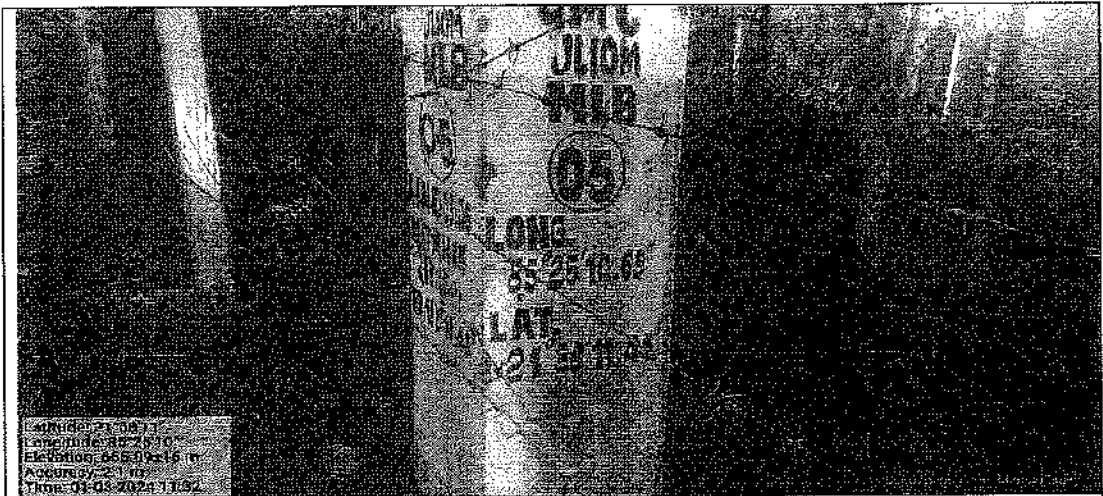
(Rupees thirty eight lakh fifty thousand seven hundred) only

Technically Approved

[Signature]
Regional Chief Conservator of Forests
Rourkela Circle

[Signature]
Divisional Forest Officer
Keonjhar Forest Division

PHOTOGRAPHS OF SAFETY ZONE PILLARS AT JILLING-LONGALATTA IRON ORE MINES OF OMC.





**OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS (WILDLIFE) &
CHIEF WILDLIFE WARDEN, ODISHA**

Government of Odisha, Forest, Environment & Climate Change Department

PRAKRUTI BHAWAN, PLOT NO.1458, SAHEED NAGAR, BHUBANESWAR- 751007

Phone: 0674-2602250, Website: www.wildlife.odisha.gov.in, Email: odishawildlife@gmail.com

No. 7053 / CWLW-FDWC-FD-0143-2021

Dated, Bhubaneswar the 27 June, 2024

To

The General Manager (Geo.)
M/s. Odisha Mining Corporation Limited
OMC House, Bhubaneswar

Sub: Submission of SSWLCP for diversion of 22.697 ha of Sabik Kissam forest land within the total mining lease area of 456.037 ha (As per DGPS Survey) of Jilling- Langalota Iron Ore mines of M/s OMC Ltd of Keonjhar District. - Approval thereof

Sir,

I am directed to convey the approval of PCCF (WL) & CWLW, Odisha for the Site Specific Wildlife Conservation Plan at financial outlay of ₹323.58 lakh (Rupees three crore twenty-three lakh fifty-eight thousand) only as per the details of activities mentioned in Chapter-4 and 6 of the Plan in compliance to the Condition No.17 of In-Principle approval granted by MoEF&CC, New Delhi vide Letter No. 8-49/1998-FC (pt1) dated 09.02.2024. A sum of ₹323.58 lakh (Rupees three crore twenty-three lakh fifty-eight thousand) only may be deposited in State CAMPA fund through portal (<https://parivesh.nic.in>) for the purpose of implementation of various activities within the project impact area in Keonjhar Forest Division.

2. Activities in the project area as per Chapter-4 and 6 of the Plan will be executed by the Project Proponent under the guidance of the concerned DFO with an additional stipulation i.e, User Agency has to pay ₹2.50 crore to Similipal Tiger Conservation Foundation for undertaking the study on impact of this project on the movement of elephants from Similipal to Keonjhar Division.

3. The Plan period is five years and will be revisited by the concerned DFO at least one year before the expiry of its implementation. The User Agency will bear the cost of such Plan on its approval. Further, the User Agency will bear additional cost, if any, towards enhancement of wage rate and escalation of price of materials at the time of implementation of this Plan. In case of any deviation, it will be dealt as per law for violations of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, Environment (Protection) Act 1986 and Wildlife (Protection) Act 1972.

Yours faithfully

Chief Conservator of Forests (WL-III)


Encl: Copy of approved SSWLCP



Memo. No. 7057 /dt. 27/06/2024

Copy forwarded for information and necessary action to the: -

1. Director Environment-cum-Special Secretary to Government of Odisha, FE&CC Department, Bhubaneswar
2. OSD-cum- Special Secretary to Government of Odisha, FE&CC Department, Bhubaneswar
3. PCCF (FD & NO, FC Act), O/o PCCF & HoFF, Odisha, Bhubaneswar
4. Regional Chief Conservator of Forests, Rourkela Circle alongwith copy of the approved SSWLCP with reference to his office Memo. No.2394 dt. 06.06.2024
5. FD, STR-cum-RCCF, Baripada alongwith copy of the approved SSWLCP
6. Divisional Forest Officer, Keonjhar Division, Keonjhar


27/06/2024
Chief Conservator of Forests (WL-III)



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfo.keonjhar@odisha.gov.in

Letter No. 5821 /6F- Mining-19/2024

Dated, Keonjhar, the 06th July, 2024

To

The Manager (Geo.) F&E,
M/s Odisha Mining Corporation Limited,
OMC House, Bhubaneswar.

Sub: Approval of Site Specific Wildlife Conservation Plan in respect of Jilling-Langalota Iron Ore Mines of M/s Odisha Mining Corporation Limited.

X-Sub: Demand of funds towards the approved Site Specific Wildlife Conservation Plan.

Ref: Memo No. 7059 dated 27.06.2024 of Chief Conservator of Forests (WL-III), O/o the Principal Chief Conservator of Forests, (WL), CWLW, Odisha, Bhubaneswar.

Sir

With reference to the aforementioned memo on the captioned subject, this is to intimate that the Chief Conservator of Forests (WL-III), O/o the Principal Chief Conservator of Forests, (WL), CWLW, Odisha, Bhubaneswar has approved the Site Specific Conservation Plan in respect of Jilling-Langalota Iron Ore Mines of M/s Odisha Mining Corporation Limited in the district of Keonjhar, Odisha with a financial outlay of Rs.323.58 lakh. Hence, you are requested to deposit the said approved amount of Rs.323.58 lakh (Rupees three crore twenty-three lakh fifty-eight thousand) only towards scheme for Site Specific Wildlife Conservation Plan through e-portal of MoEF&CC as provided in the <https://parivesh.nic.in/> and the proof/evidence of the deposit of fund be submitted to this office for further necessary action at this end. Further, it is intimated that the PCCF (WL) has imposed the following conditions at the time of aforesaid approval which has to be abided by the User Agency.

- Activities in the project area as per Chapter- 4 of the Plan will be executed by the project proponent under the guidance of DFO, Keonjhar Division with an additional stipulation i.e. User agency has to pay Rs.2.50 crore to Similipal Tiger Conservation Foundation, Baripada.
- The plan period is five years and will be revisited by concerned DFO at least one year before expiry of its implementation. The User Agency will bear the cost of such plan on its approval. Further, the User Agency will bear additional cost, if any, towards enhancement of wage rate and escalation of price of materials at the time of implementation of this plan. In case of any deviation, it will be dealt as per law for violations of Forest (Conservation) Act, 1980, Environmental (Protection) Act, 1986, and Wildlife Protection Act, 1972.

Yours faithfully,


Divisional Forest Officer,
Keonjhar Division.


4/3

PTO

Memo No. 5822 / Dated. 06.07.2024

Copy forwarded to the Regional Chief Conservator of Forests, Rourkela Circle / Baripada Circle for favour of kind information and necessary action.

Divisional Forest Officer,
Keonjhar Division.

Memo No. 5823 / Dated. 06.07.2024

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

Divisional Forest Officer,
Keonjhar Division.

4/2



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

E-mail: nodal.pccfodisha@gmail.com

Memo No. 22873 /9F (MG) - 70/2021

Dated, Bhubaneswar the 14th November' 2024

To

The Divisional Forest Officer
Keonjhar (WL) Division, Anandapur

- Sub: (i) Adjustment of compensatory levies in respect of non-forestry use of 22.697 ha forest land in respect of Jiling-Longlota Iron Ore Block within total mining lease of 456.100 ha in Keonjhar District of M/s OMC Ltd - regarding.
(ii) Adjustment of compensatory levies for grant of permission to surrender 98.731 ha out of 103.198 ha of approved forest area granted by MoEF & CC, Govt. of India over 106.016 ha of forest land pertaining to Daitari Conveyer Corridor - regarding.
- Ref: (i) Letter No. 8178/OMC/F&E/2024 dated 17.05.2024 of the Chief Vigilance Officer and Land Officer, Authorised Signatory, M/s OMC Ltd.
(ii) Your Memo No. 3698 dated 06.08.2024.

In inviting a reference to the subject cited above, it is to inform you that M/s OMC Ltd. vide letter at (i) has requested to adjust Rs 10,08,93,807/- deposited in CAMPA account due to surrender of 98.731 ha forest land in respect of diversion of 106.016 ha forest land. This amount includes the cost of SSWLCP of Rs 24,59,000/-.

The SSWLCP has been revised for Rs 2493.26125 lakh vide letter No.3126 dated 11.03.2024. In the approval letter, it has been categorically mentioned that the amount of Rs 455.65515 lakh shall be deposited in the CAMPA account as the user agency has deposited 2037.607 lakh as per approval of the previous SSWLCP. The deposited amount of Rs 20,37,60,700/- includes Rs 24,59,000/- as mentioned above. Thus, the amount to be adjusted comes to Rs.9,84,34,807/- (Rs 10,08,93,807 - Rs.24,59,000/-).

In this context, you had intimated vide letter at (ii) above, that out of total deposited amount of Rs 10,08,93,807/-, an amount of Rs 4,55,65,515/- is to be adjusted towards SSWLCP for extension of Daitari Railway Line leaving a balance amount of Rs 5,53,28,292/- unadjusted which is further to be adjusted towards compensatory levies as demanded, which is incorrect.

In view of the above, I am directed to request you to recalculate the amount to be adjusted and intimate the said figure to the DFO, Keonjhar Forest Division to enable the DFO, Keonjhar Forest Division to adjust the demanded amount from the unadjusted amount at his end.

14/11/2024
Chief Conservator of Forests (Nodal)

Memo No. 22874

Dt. 14.11.2024

Copy forwarded to the DFO, Keonjhar Forest Division for information & necessary action with reference to his Memo No. 8665 dated 25.10.2024. He is requested to adjust the demanded amount from the unadjusted amount after receiving the revised information/figure from DFO, Keonjhar (WL) Division, Anandapur.

14/11/2024

Memo No. 22875

Dt. 14.11.2024

Chief Conservator of Forests (Nodal)

Copy forwarded to the RCCF, Rourkela Circle for information & necessary action with reference to Memo No. 8666 dated 25.10.2024 of DFO, Keonjhar Forest Division.

14/11/2024

Memo No. 22876

Dt. 14.11.2024

Chief Conservator of Forests (Nodal)

Copy forwarded to the FD, STR-cum-RCCF, Baripada Circle for information & necessary action with reference to Memo No. 3700 dated 06.08.2024 of DFO, Keonjhar (WL) Division, Anandapur.

14/11/2024

Memo No. 22877

Dt. 14.11.2024

Chief Conservator of Forests (Nodal)

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.

14/11/2024

Chief Conservator of Forests (Nodal)



OFFICE OF THE
DIVISIONAL FOREST OFFICER, KEONJHAR WILDLIFE DIVISION, ANANDAPUR.
At/PO- Salapada, Dist- Keonjhar, Pin- 758020, e-mail id: dfo.keonjharwl@odisha.gov.in

Letter No. 5547 /3WL (Lease)/ /2024
Dated, Anandapur the 21st November 2024.

To

The Divisional Forest Officer
Keonjhar Forest Division, Keonjhar.

Sub: - (i) Adjustment of Compensatory levies in respect of non-forestry use of 22.697 ha. of forest land in respect of Jilling Langalota Iron ore Block within total mining lease of 456.100 ha in Keonjhar District of OMC Ltd.-regarding.
(ii) Adjustment of compensatory levies for grant of permission to surrender 98.731 ha out of 103.198 ha of approved forest area granted by MoEF & CC, Govt. of India over 106.016 ha of forest land pertaining to Daitari Conveyor Corridor -regarding.

Ref: - (i) Letter No. 8178/OMC/F&E/2024, dt.17.05.2024 of OMC Ltd.
(ii) This office Memo No. 3698/3WL(Lease)/2024 dt 06.08.2024.
(iii) Memo No. 22874 dt. 14.11.2024 of the Chief Conservator of Forest (Nodal), O/o the PCCF & HoFF, Odisha, Bhubaneswar.

Sir,

In inviting a kind reference to the Letter Nos. cited above on the captioned subject, this is to inform you that, the Chief Conservator of Forest (Nodal), O/o the Principal Chief Conservator of Forests & HoFF, Odisha, Bhubaneswar vide his letter under reference has instructed the undersigned to recalculate the amount deposited in CAMPA account due to surrender of 98.731 ha of forest land in respect of diversion of 106.016 ha forest land as under:

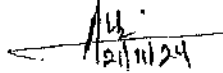
Rs.9,84,34,807/- (Rs 10,08,93,807.00 - Rs 24,59,000.00).

Out of the above amount, an amount of Rs. 4,55,65,515/- (Rupees Four crore fifty-five lakh sixty-five thousand five hundred fifteen) only has been adjusted towards Site Specific Wildlife Conservation Plan approved for extension of Daitrai Railway line leaving a balance amount of Rs. 5,28,69,292/- (Rupees five crore twenty-eight lakh sixty-nine thousand two hundred ninety-two) only unadjusted.

In this regard, this office Memo No. under reference stands modified to the above extent and Rs. 5,28,69,292/- (Rupees five crore twenty-eight lakh sixty-nine thousand two hundred ninety-two) only may be adjusted towards compensatory levies by your good office.

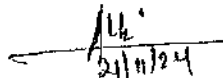
This is for favour of your kind information and necessary action.

Yours faithfully,


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.

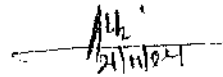
Memo No. 5548 /Date 21/11/2024 /

Copy forwarded to the Chief Conservator of Forest (Nodal), O/o the Principal Chief Conservator of Forests & HoFF, Odisha, Bhubaneswar for favour of kind information and necessary action with reference to his Memo No. 22873/9F(MG)-70/2021 dt. 14.11.2024.


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.

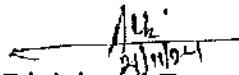
Memo No. 5549 /Date 21/11/2024 /

Copy forwarded to the Field Director, Similipal Tiger Reserve-cum-Regional Chief Conservator of Forests, Baripada Circle, Baripada for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.

Memo No. 5550 /Date 21/11/2024 /

Copy forwarded to the Chief Vigilance Officer and Land Officer, Authorized Signatory of OMC for information and necessary action.


Divisional Forest Officer,
Keonjhar Wildlife Division,
Anandapur.



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfo.keonjhar@odisha.gov.in

Memo No. 9699

/6F-Mining-19/2024

Dated, Keonjhar the

28th November, 2024

To

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

Sub: Proposal for Diversion of 22.697 ha of Sabik Kisam Forest Land within the total mining lease area of 456.037 ha of Jilling Langalota Iron Ore Mines of M/s OMC Ltd of Keonjhar District-regarding.

Ref: 1. Your Memo No.22874 dated 14.11.2024, No.18551 dated 12.09.2024 & 17325 dated 28.08.2024.
2. Memo No.5547 dated 21.11.2024 of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

This is to inform you that, during auction of Jilling-Longlota Mines, M/s OMC Ltd had deposited the lump sum amount @ 7.50 lakh per ha over the forest area involved in mining lease to the tune of Rs. 27,71,46,750/- owing to Ministry's guidelines dated 31.03.2020.

As per your memo No.17325 dated 28.08.2024 the aforesaid amount will be adjusted towards actual compensatory levies payable at the time of approval relating to the project.

Further, it is mentioned vide your memo No.22874 dated 14.11.2024 to adjust the demanded amount of this division from the unadjusted amount, of the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.

Accordingly, the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur has intimated vide his memo No. 5547 dated 21.11.2024 that a sum of Rs.5,28,69,292/- are remained unadjusted, which may be adjusted towards the demanded amount of this division.

As such, the compensatory levies need to be adjusted from the above lump sum amount and unadjusted amount of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur, the details of which is depicted below:-

Sl. No.	Particulars	Amount in Rupees
1	Compensatory Afforestation against Pre-80 broken up forest land.	Rs.23,92,62,400/-
2	CA over (22.697 ha) + Gap planting.	Rs.1,87,30,000/- ✓
3	NPV (as demanded vide this office letter No 8445 dated 17.10.2024).	Rs.2,44,30,067/- ✓
4	Site Specific Wildlife Conservation Plan (as demanded vide this	Rs.3,23,58000/- ✓

	office letter No 5821 dated 06.07.2024).		
	Total Compensatory levies	Rs. 31,47,80,467/-	
5	Lump sum amount deposited by the UA	Rs.27,71,46,750/-	✓
	Balance Amount to be paid by the User Agency	Rs. 3,76,33,717/-	
6	Amount adjusted from the un-adjusted amount of Rs.5,28,69,292/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur.	Rs. 3,76,33,717/-	
	Balance amount to be paid	Nil	

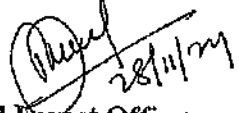
After adjustment of Rs. 3,76,33,717/-, a sum of Rs. 1,52,35,575/- of Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur is still remain un-adjusted.

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


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9700 /Dated 28.11.2024

Copy submitted to the Divisional Forest Officer, Keonjhar Wildlife Division, Anandapur for favour of kind information and necessary action with reference to his memo No. 5547 dated 21.11.2024.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9701 /Dated 28.11.2024

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

Memo No. 9702 /Dated 28.11.2024

Copy forwarded to the Chief Vigilance and Land Officer, Authorised Signatory, M/s OMC Ltd., OMC House, Bhubaneswar-751001 for information and necessary action.


Divisional Forest Officer,
Keonjhar Division.

SITE SPECIFIC WILDLIFE CONSERVATION PLAN

FOR

JILLING-LANGALOTA IRON ORE MINES

OF

ODISHA MINING CORPORATION LIMITED

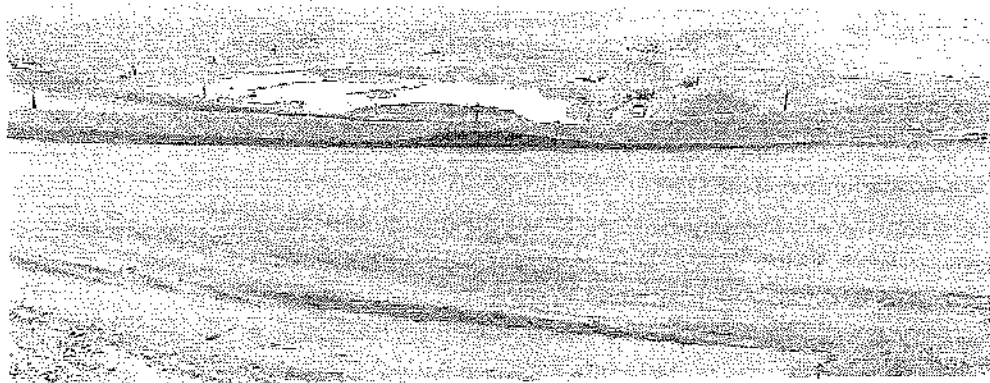
IN THE

REVENUE VILLAGES OF JALAHARI, JORULI, BHOLEBEDA,

GANSPANI, JAJANG & KHUNTAPANI

&

BAITARANI RESERVE FORESTS



**UNDER BARBIL TAHASIL OF KEONJHAR DISTRICT,
ODISHA**

BY

DIVISIONAL FOREST OFFICER,

KEONJHAR DIVISION



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EXECUTIVE SUMMARY

1. Jilling-Langalota Iron Ore Mines over an area of 456.037 ha (as per DGPS) has been granted in villages Banspani, Bholebeda, Jajang etc. In favour of OMC for a period of 10 years. Accordingly, Mining Lease deed has been executed on 11.01.2021.
2. The mining lease area over 456.037 ha comprises of 392.289 ha of forest land and 63.748 ha of non-forest land. Stage-II Forest Clearance over 342.602 ha has been granted by MoEF vide letter F. No. 8-49/98-FC (Pt.) dt. 08.10.2014. An area over 26.99 ha forest has been occupied by South Eastern Railway. So, application has been submitted by OMC for balance 22.697 ha (392.289-342.602-26.99) of forest land. MoEF & CC vide letter no. 8-49/1998-FC(PT1) dt. 09.02.2024 has granted Stage-I FC over 22.697 ha.
3. Jilling-Langalota Iron Ore Mines finds place within latitude 21°56'37.5297" to 21°58'53.4158" N and longitude 85°25'08.8832" to 85°26'37.1370"E in the Survey of India Topo sheets bearing no. 73 G/5 & 73 F/8.
4. The administrative jurisdiction of ML is coming under Keonjhar Forest Division. This lease comes under Champua Forest Range, Joda Section and Joruli Beat and falls within Baitarani Reserve Forest.
5. MoEF has granted environmental clearance vide letter dt. 07.05.2012 for production of 6.28 MTPA of Iron ore. Also EC for enhancement of Iron Ore production from 6.28 MTPA to 10 MTPA has already been recommended by EAC-Non Coal mining in its meeting held during 05th and 06th December, 2023.
6. Around 70 numbers of different mining leases is situated within the study area.
7. This mining lease will displace wild animals with loss of flora, disturbance and restricted the use of habitat within the lease. Most species from the mine area except a few are displaced.
8. The energy consumption by the villagers for cooking food items entirely depends on natural forest.
9. Women folk are normally engaged in collection of NTFP.
10. The area exhibits an undulated topography with varying elevations from 620 m to 490 m AMSL.
11. No water reservoir will be created due to creation of mining pit. Existing ground water table will not be affected by the mining activity.
12. Duly authenticated list of Flora and Fauna of both the ML area and ZOI is enclosed. No endemic plant or animal species present in this area. As far as, threatened fauna is concerned all Schedule-I species are threatened. Schedule-I species present in the Core Zone is Common Mongoose, Jackal, Russels Viper, Cobra and Yellow Rat Snake.



whereas, in the ZoI, Indian Fox, Elephant, Hyaena, wild cat, Sloth Bear, Small Indian Civet, Cobra, Yellow Rat Sanke, Crested Serpent Eagle etc. are reported.

13. The forests are allotted to Selection Working Circle, Protection Working Circle, Miscellaneous Working Circle, and Wildlife Working Circle (Over lapping).

14. The mining will be carried out by fully mechanized method.

15. The impact of this mining could be geo-morphic changes of the area, soil erosion, loss of moisture from soil, habitat loss due to vegetation destruction, use of ground water and water pollution due to waste water running from OB dumps, haul roads, ore stacks and also from barren slopes, when mixed with red sediment.

16. Anticipated impacts shall be loss and fragmentation of the habitat, loss of bio-diversity, fire hazards and increase of its intensity, accidental fall of animals in pits, litter generation, etc.

17. The management will target optimization and maintenance of wildlife habitat and biodiversity, involving local people as far as practicable and aim to avoid/minimize or mitigate the adverse impacts of the mining activity.

18. Strategies to mitigate the impact within the mining lease area includes protection of virgin forest, reclamation of mine pits and plantation, soil erosion control, grass seeding, placing of artificial bird nests, creation of fire line and its maintenance, erection of solar powered fencing and promoting the awareness among the people.

19. Strategies for mitigation of impacts on the buffer zone of the mining lease area includes enrichment plantation, fire line creation, engagement of fire watchers, preventing of fire incidence, protection camps and awareness promotion among the people. Provision has been made for anti-depredation squad, photo-voltaic fencing, grass land development, etc.

20. The plan has been prepared for 05 years.

21. The proposed mitigative measures involve Rs 446.574 lakhs towards total financial outlay to be executed by DFO, Keonjhar Division in the impact zone of Jiling-Longalotta Iron Ore Mines of OMC Ltd.



CHAPTER-I

INTRODUCTION

1.0 Introduction:

Odisha Mining Corporation Limited (OMC) was incorporated on 16th May, 1956 as a Joint Venture Company of Govt. of Odisha and Govt. of India with the objective of harnessing the mineral wealth of the State of Odisha through exploration, extraction as well as value addition.

Four years after, following the withdrawal of the Govt. of India from the company, OMC became a wholly State-owned Corporation of Govt. of Odisha on 17th Nov, 1961. As of now, it continues to be a wholly owned corporation of the Odisha Government. The major minerals mined by OMC are Chrome, Iron, Manganese and Bauxite which cater to the requirement of mineral based Industries such as steel, sponge iron, pig iron, Ferro-manganese, Ferro-chrome, alumina etc.

OMC has been growing steadily over these years and today it stands as the largest State PSU in the mining sector of the country. That OMC has been classified as a "Gold Category State PSU" and 100% debt free profit making corporation, is a testament to the excellent processes and systems put in place by the management team.

Jiling-Langalota Iron Ore Mines of OMC Ltd. is an ongoing mines for exploitation of Iron Ore occurring in the mining lease (ML) area over an area of 456.10 ha (as per RoR)/456.037 ha (as per DGPS) in the Revenue villages of Jalahuri, Jaroli, Bholebeda, Banspani, Jajang, Khuntapani under Barbil Tahasil of Champua sub-division in Keonjhar District and Baltarani Reserved Forest of Keonjhar Forest Division.

Jiling-Langalota Iron Ore mining lease over an area of 630.00 ha for iron was initially executed on 08.10.1956 for a period of 30 years with effect from 01.10.1954 in favour of M/s SLI & Co. Ltd. for exploitation of Iron & Manganese Ore by the Govt. of Orissa in the year 1954 for a period of 30 years. Govt. of Orissa in pursuance of the order no. 13605/MG.III (A) M.G. Bhubaneswar dated 21.11.1986 has renewed the Mining Lease and the RML deed was executed on 30th March, 1988. M/s Lal & Co. applied before Additional Registrar of companies for fresh certificate of incorporation consequent on change of name and Additional Registrar of companies, West Bengal changed the name to M/s Essel Mining & Industries Ltd. vide his letter dated 23.10.1990. Company also intimated State Govt. about the change of name as required under Rule 62 of MC Rule 1960 and Joint Secretary to Govt. given consent vide their letter no. III (A) MM-49/9.0335/SM dated 09.01.1991. The 1st RML period expired on dt 30.09.2004 and accordingly, the Lessee filed renewal application in Form-J of MCR-1960 and received the acknowledgement copy in Form-D dated 11.09.2023. As per provision under section 8 (A) of MMDR Amendment Act, 2015,



the Govt. of Odisha in the department of Steel & Mines extended the validity period of the mining lease up to 31.03.2020. Accordingly, the supplementary lease deed was executed on 19.02.2016. The mine was put under auction by the State Government and the successful bidder could not comply the terms and conditions as a result of which State Government recommended for consideration and allocation through reservation (section 17A of MMDR Act) route or any other appropriate provision in favour of OMC Ltd. (A Government Company).

Considering the above the Ministry of Mines, Govt. of India vide order no. 4/1/2020-M-VI dt. 05.01.2021 cancelled the LoI and/or vesting order issued under section 8B of the MMDR Act in favour of the preferred bidders and reserved the Mining Lease in favor of OMC. Pursuance to the said order, the State Govt. vide notification no. 299/SM dt. 11.01.2021 reserved Jiling-Langalota Mining Lease in favour of OMC under section 17 (A) (2) of the MMDR Act read with section 20 A for a period of 10 years vide notification no. 299/SM dt. 11.01.2021. The State Government thereafter issued a letter of intent vide no. 307/SM dt. 11.01.2021 for grant of mining lease in favour of OMC for a period of 10 years. State Govt. vide order No. 317/SM dt. 11.01.2021 (as per Section 8B of the MMDR Act, 1957) has transferred all the valid rights, approvals, clearances, licenses and the likes vested with the previous lessees in favor of OMC Ltd. State Government vide order No. 338/SM dt. 11.01.2021 (**Annexure-I**) granted the Jiling-Langalota Iron Ore Mines over an area of 456.100 ha (as per RoR)/456.037 ha (as per RoR) in villages Banspani, Bholebeda, Jajang etc. in favour of OMC for a period of 10 years. Accordingly, Mining Lease deed has been executed on 11.01.2021 (**Annexure-II**).

The mining lease area over 456.037 ha (as per DGPS) comprises of 392.289 ha of forest land and 63.748 ha of non-forest land. Stage-II Forest Clearance over 342.602 ha has been granted by MoEF vide letter F. No. 8-49/98-FC (Pt.) dt. 08.10.2014. An area over 26.99 ha forest has been occupied by South Eastern Railway. So, application was submitted by OMC for balance 22.697 ha (392.289-342.602-26.99) of forest land. MoEF & CC vide letter no. 8-49/1998-FC (PT1) dt. 09.02.2024 (**Annexure-III**) has granted Stage-I FC over 22.697 ha subject to fulfillment of several conditions. Condition no. 17 of the Stage-I approval is read as follows:

"A Site Specific Wildlife Management Plan to mitigate the impact of project on wildlife of the area shall be prepared by the state Government in consultation with the PCCF & Chief Wildlife Warden of State at project cost and an approved copy of the same along with detail of deposition of funds into the CAMPA account shall be submitted to the Ministry along with the compliance of 'in-principle' approval".

In order to comply the above condition stipulated in the Stage-I FC the wildlife conservation plan has been prepared and submitted herewith for approval.



1.1 Location of the Project:

Jiling-Langalota Iron Ore Mines finds place within latitude 21°56'37.5297" to 21°58'53.4158" N and longitude 85°25'08.8832" to 85°26'37.1370" E in the Survey of India Topo sheets bearing no. 73 G/5 & 73 F/8 (Plate-I). The area exhibits an undulated topography with varying elevations from 620 m to 490 m Above Mean Sea Levels (AMSL).

Forest/Civil Administrative Jurisdiction:

The Forest / Civil administrative jurisdiction is furnished below:

Table.1: Forest/Civil Administration Jurisdiction

Sl. No.	Forest Jurisdiction		Civil Jurisdiction	
	Unit	Name	Unit	Name
1	Beat	Joruli	Village	Jalahari, Joruli, Bholebeda, Banspani, Jajang & Khuntapani
2	Section	Joda	Tahasil	Barbil
3	Range	Champua	Sub-Division	Champua
4	Division	Keonjhar	District	Keonjhar
5	Circle	Rourkela	Division	Northern Division, Sambalpur

1.1.2 Approach to the Project:

This area can be approached from Joda town covering a distance of 8.0 km by Joda-Bamebari Express Highway. The nearest railhead is located at Joruli at a distance of 1.0 km from the ML area on Tata-Chalbasa-Banspani-Keonjhar track of South-Eastern Railway. The district Head Quarter Keonjhar is at distance of 52 km via Kalimatti-Palasponga Express highway. The Air strip at Tanto is at a distance of 15 km from the ML area.

1.1.3 Extent of Project Area & Land Schedule:

The Mining Lease area over 456.037 ha comprises 392.289 ha of forest land and 63.748 ha of non-forest land. The certified land details by the Tahasildar, Barbil is given as under:

Table.2: Extent of project area & land schedule

Sl. No.	Name of the village	Forest area in Ha.	Non-forest area in Ha.	Total area in Ha.
1	Banspani	3.269	3.299	6.568
2	Bholebeda	74.182	2.448	76.630
3	Jajang	114.930	20.819	135.749
4	Jalahari	99.935	31.794	131.729
5	Joruli	2.639	5.388	8.027
6	Khuntapani	0.620	0	0.620
7	Baitarani RF	96.714	0	96.714
Total		392.289	63.748	456.037



The classification of forest area is as follows:

Table.3: Classification of Forest land.

Classification of Forest Land (Area in Ha)				
Category of Forest	Reserve Forest	Revenue Forest	Forest as on 25.10.1980	Forest area as per DLC
Area in Ha	96,714	20,154	29,185	246,236
Percentage	24.65	5.14	7.44	62.77

1.1.4 Details of Forest/Non Forest land involved.

The land involved in the project is 456.037 ha which includes 392.289 ha of forest land and 63.748 ha of non-forest land.

1.2 Cost of the Project: The project cost is Rs 4493.60 Lakh.

1.3 Nature & Land involved in the Project:

The land involved in the project is mostly Forest Land i.e. over 392.289 ha (86.02%) and Non Forest land over 63.748ha (13.98%) which mostly includes Private Agricultural land, small water body, Govt. Non Forest Land.

1.4 Nature of the Project:

The project is non linear. It is a Mining Project and in operation since 1954 and OMC is the 2nd Lessee with effect from 11.01.2021.

1.5 Stipulated Condition under which plan to be prepared:

The Plan is being prepared under stipulated condition as per the in-principle (Stage-I) approval issued vide letter No.8-49/1998-FC (PT1) dated 09th February, 2024 over 22.697 ha of Sabik kissam forest land within Jilling-Langalota Iron Ore Mines of OMC Ltd. (Annexure-III). Condition no. 17 of the Stage-I approval is read as follows:

"A Site Specific Wildlife Management Plan to mitigate the impact of project on wildlife of the area shall be prepared by the state Government in consultation with the PCCF & Chief Wildlife Warden of State at project cost and an approved copy of the same along with detail of deposition of funds into the CAMPA account shall be submitted to the Ministry along with the compliance of 'in-principle' approval".

1.6 Statutory Clearances:

1.6.1 Status of Forest Clearance:

The total forest area is 392.289 ha. The project has obtained Forest Clearance over an area of 342.602 ha and 26.99 ha of forest land have been acquired by South Eastern Railway. For balance forest area over 22.697 ha Stage-I FC has been granted by MoEF & CC vide letter No.8-49/1998-FC (PT1) dated 09th February, 2024. Compliance to stage-I conditions are under progress.



1.6.2 Status of Wildlife Clearance:

The project area does not form a part of National Park, Wildlife Sanctuary, any Protected Area nor it comes within any Eco Sensitive Zone of National Park, Wildlife Sanctuary, any Protected area. Hence Wildlife Clearance U/s 29 of Wildlife (Protection) Act, 1972 is not applicable to this project.

1.6.3 Status of Environmental Clearance:

Jilling-Langalota Iron Ore mine has a valid Environment Clearance (EC) for a production capacity of 6.28 MTPA of Iron Ore vide Letter No.J-11015/959/2007-IA-II (M) dated 07.06.2012 issued by MoEF, Government of India, New Delhi (**Annexure-IV**). Also EC for enhancement of Iron Ore production from 6.28 MTPA to 10 MTPA has already been recommended by EAC-Non Coal mining in its meeting held during 05th and 06th December, 2023. The 1st RML period expired on dt 30.09.2004. Accordingly, the Lessee filed renewal application in Form-J of MCR-1960 and received the acknowledgement copy in Form-D dated 11.09.2023. As per provision under section 8 (A) of MMDR Amendment Act, 2015, the Govt. of Odisha in the Department of Steel & Mines extended the validity period of the mining lease up to 31.03.2020.



CHAPTER-II

PROJECT & ITS IMPACT AREA

2.0 Description of Project Area & its Impact Area:

Jiling-Langalota Iron Ore Mine under Barbil Tahasil of Keonjhar District was originally granted in favour of M/s S Lal & Co Ltd. for a period of 30 years with effect from 01.10.1954. Govt. of Orissa in pursuance of the order no. 13605/MG.III (A) M.G. Bhubaneswar dated 21.11.1986 has renewed the Mining Lease and the RML deed was executed on 30th March, 1988. M/s Lal & Co applied before Additional Registrar of companies for fresh certificate of incorporation consequent on change of name and Additional Registrar of companies, West Bengal changed the name to Essel Mining & Industries Ltd. vide his letter dated 23.10.1990. The mine was put under auction by the State Government and the successful bidder could not comply the terms and conditions.

Pursuance to order no. 4/1/2020-M-VI dt. 05.01.2021, State Govt. vide notification no. 299/SM dt. 11.01.2021 reserved the Jiling-Langalota Mining Lease in favour of OMC under section 17 (A) (2) of the MMDR Act read with section 20 A for a period of 10 years vide notification no. 299/SM dt. 11.01.2021. State Government vide order No. 338/SM dt. 11.01.2021 granted Jiling-Langalota Iron Ore ML over an area of 456.037 ha for a period of 10 years. Accordingly, Mining Lease deed has been executed on 11.01.2021. At present the mine is in operation and valid till dt. 10.01.2031.

2.1 Location:

Jiling-Langalota Iron Ore Mines comes within the village limits of Jalahari, Joruli, Bholebeda, Banspani, Jajang & Khuntapani and Baitarani Reserved Forest in Barbil Tahasil of Keonjhar District of Odisha. The mine is bounded by

Latitude: 21°59'21.99060" N to 22°00'1.98397" N

Longitude: 85°17'02.37474" to 85°18'59.14042"E

The project finds place in Survey of India Topo sheet No F45N5 (73G/5) and F45H8 (73H/8) (Scale 1:50000).

2.1.1 Approach to the Mining Lease:

The mine is located in the Joda-Banspani Region which has several iron ore and manganese ore mines. Out of 456.037 ha of ML area, 392.289 ha (~86%) is Forest Land (partly in revenue forest and partly in Baitarani Reserve Forest). The nearest railway station is Jalhari on Padapahar Jn (on SE-Railway's Rajkharasawan - Barajamda Jn. B.G. Branch Line)-Banspani-Keonjhar-Jakhapura Jn. (on East Coast Railway's Kharagpur-Cuttack-Visakhapatnam B.G. Main Line) which is ~0.25 km west of the mine lease



boundary. There is no airport with scheduled flights within 100 km of the mine. However, there is a private airstrip with a ~3000 ft. long runway at Tanto ~8.2 km NW of the ML area.

2.2 Zone of Impact:

The Zone of Impact (ZOI) is defined as area coming within 10km radius from the periphery of the project boundary. The ZOI of Jiling-Langalota Iron Ore Mine computed to be 432.227 sq. km, The District wise Zone of Impact (ZOI) area is as follows:

Table 2.1: District wise Zone of Impact (ZOI) area

Zone of Impact (District wise & Forest Division wise)				
State	District	Area in Sq. Km	Percentage	Forest Division
Odisha	Keonjhar	406.303	94.00	Keonjhar
	Sundergarh	25.924	6.00	Sundergarh
Total		432.227	100	

2.2.1 Status of overlapping zone of Impact with other Mining projects:

The mine is located in a promising iron ore belt of Joda-Barbil-Koira-Singhbhum. The mining/industry projects located surrounding and adjacent to Jiling-Langalotta mines is given as under:

Table 2.2: List of mining leases/industries in the ZoI.

Sl.No	Name of the Lease	Status of Lease
1	JSPL Kasia Iron & Dolomite	Working
2	OMC-Serenda Iron & Manganese	Non-working
3	S D Sarma Raika	Non-working
4	Sorojini Pradhan Balita Iron Mine	Non-working
5	B.D. Patnaik Kalaparbat Iron Mines	Non-working
6	Kushaleswar Minerals-Raikia-Kalaparbat	Non-working
7	Tisco-Banejkala (Barnebari Block-1) Mn	Working
8	K N Ram Roida-II Iron Mine	Working
9	Mesco-Roida-I Iron Mine	Non-working
10	Dharamchand Jain Sidhamath Iron & Mn	Non-working
11	Roida-C Iron & Mn Mines of OMC	Working
12	OMC Roida78	Non-working
13	OMDC Kolha Roida	Non-working
14	OMDC Bhadrasahi	Non-working
15	Tisco-Joda west Mn Mine	Working
16	R B Das Kundrupani Iron & Mn	Non-working
17	R.B. Das-Dalpahar Iron-Mn Mines	Non-working
18	S N Paul Katasahi Mn Mine	Non-working
19	Rungta Katasahi Mn Mine	Working
20	R P Sao Chormalda Mn Mine	Non-working



Sl.No	Name of the Lease	Status of Lease
21	Tisco_Malda B1	Working
22	B C Dogra Ganua	Non-working
23	P.K. Ahluwalia Ganua Iron & Mn Mine-23.3	Non-working
24	S N Mohanty_Ganua Iron-Mn	Working
25	M G Mohanty Ganua Iron & Mn Mine (82)	Non-working
26	Tisco_Malda B5	Working
27	B C Dogra_Dalita	Non-working
28	Rungta Siljoda Mn Mine	Working
29	Omc_Dubna	Non-working
30	Serazudin-Balda Iron Mine	Working
31	Omc_Mahaparnat	Working
32	Essel Unchabali Iron & Mn Mine	Non-working
33	S.N. Mohanty-Unchabali Iron & Mn	Non-working
34	OMC SGBK	Non-working
35	OCL Kundaposi Iron Mine	Non-working
36	Tisco-Bamebari-2 Mn Mine	Working
37	OMC BPJ	Non-working
38	Patnaik-Jaribahal Iron Mines	Working
39	Patnaik -Jaribahal Iron-Mn	Non-working
40	Tisco Tiring Pahar Mn Mines	Working
41	Serajudin_Guruda	Non-working
42	Pawan Kumar Ahluwalia Iron & Mn Ganua-86	Working
43	Mg Mohanty Patabeda Iron Mine (14)	Working
44	Mg Mohanty Patabeda Iron & Mn Mine (19)	Working
45	Mg Mohanty Patabeda Iron Mine (28)	Working
46	Tisco-Khandbandh Iron Mine	Working
47	Shri Metaliks Ltd. Khandbandh Iron ore Mine	Working
48	Dipak-Steel Khandbandh Iron	Non-working
49	Omc Tiringpahar	Working
50	Omc Khandbandh	Working
51	Tarini Mineral-Jururi Iron & Mn	Non-working
52	Tisco Bamebari (Block-3) Jaribahal Mn	Working
53	Rungta Jajang Iron Ore Mine	Working
54	H G Pandya Jajang Iron Mn Mine	Non-working
55	Kmc-54 Jururi Iron & Mn Mine	Working
56	Kmc-39 Jururi & Jalahuri Iron	Non-working
57	Malarai -Jalhari Iron & Mn Mines	Non-working
58	OMC-Banspani Iron	Working
59	S C Padhi Gurubeda Iron Mine	Non-working
60	Narayani Sons Suruguturia Iron Rml-41	Non-working
61	Narayani Sons Suruguturia Iron MI-99	Non-working
62	Mineraltrading Syndicate Bhulbeda Iron	Non-working
63	K C Pradhan Chamakpur Iron Mine	Non-working



64	Bhanja Mineral-Inganijharan Iron & Mn	Non-working
65	B.C. Deb Inganijharan Iron & Mn	Non-working
66	Sorojini Pradhan Inganijharan Iron Mine	Non-working
67	Sorojini Pradhan Baitarani Iron Mine	Non-working
68	Sn Mohanty Khuntapani	Non-working
69	Tisco-Joda east Iron Mine	Working
70	Tisco-Manmora Mn Mine	Non-working

2.3 Land Use Pattern:

Land use pattern of any project (both Core & buffer) provides vital information on environmental setting of the locality. For land use pattern, study of Core Zone the approved Mining Plan/Scheme is taken in to consideration. In case of Buffer Zone Satellite imagery analysis is being taken up.

2.3.1 Core Zone:

The land use pattern at the start of the plan period, at end of first five year of the mine plan period and at the end of conceptual period is given in the table below:

Table 2.3: Land use pattern of the ML area.

Sl. No.	Description	Area put to use at the start of plan period (Ha)	Total area at the end of first 5 years of plan period (Ha)	Land use by end of Conceptual Period (Ha)
1	Area under mining	107.798	124.522	124.522
2	Storage of topsoil	0.00	0.00	0.00
3	Waste dump site	26.447	76.551	76.551
4	Mineral storage	16.843	25.817	42.414
5	Infrastructure	4.039	23.799	23.799
6	Roads	4.482	10.366	10.366
7	Railways	15.755	15.840	15.84
8	Tailing pond	0.00	0.00	0.00
9	Effluent Treatment Plant	0	0.00	0.00
10	Mineral Separation Plant	17.608	22.185	6.301
11	Township area	3.599	3.599	3.599
12	Others (Magazine)	0.713	0.713	0.00
13	Others (Water Harvesting)	0.693	0.693	0.693
14	Others (Green belt/ Safety zone)	10.314	10.314	10.314
15	Others (Nala with Safety zone)	11.899	11.899	11.899
16	Others (Express Highway with Safety zone)	10.982	10.982	10.982
17	Others (HT line)	3.102	3.102	3.102
18	SE Railway	34.967	34.967	34.967
	Total area of Utilization	269.241	375.349	375.349
19	Other un-utilized area	186.859	80.751	80.751
	Grand total	456.100	456.100	456.100



2.3.2 Zone of Impact (Buffer Zone):

The Land use pattern of Zone of Impact has been studied by Analysis of Satellite Imagery. The land use patter is as follows:

Table 2.3: Land use pattern of the Zone of Impact.

Sl.No.	Land use Class name		Area (ha)	Area in percentage (%)
1	Built-up Land			
	i	Habitation/Settlement	2507.70	5.74
	ii	Industrial Area	202.90	0.46
	iii	Air strip	17.90	0.04
	iv	Highway	98.20	0.22
2	Agricultural Land			
	i	Crop land	2252.90	5.16
	ii	Fallow land	5232.20	11.98
3	Forest			
	i	Dense Forest	25476.70	58.31
	ii	Open Forest	2881.50	6.59
4	Water bodies			
	i	Lake/Pond	52.50	0.12
	ii	River/Stream/Canal	292.90	0.67
5	Others			
	i	Scrub land	1713.30	3.92
	ii	Mine/Quarry	2961.90	6.78
Total			43690.60	100

2.4 Habitation:

2.4.1 Core Zone:

The Mining Lease area covers six villages. The demographic profile as per 2011 Census is furnished as below:



Table 2.4: Demographic profile of the mining lease area.

Sl. No.	Village	Total No. of Households	Total population	Total Male	Total Female	Population SC	Population ST	Population Literate	Male Literate	Female Literate	Working Population	Main-worker Population	Cultivator Population	Agriculture Worker	Household Industry	Other Population	Marginal Population	Non-working population
1	Jalahari	963	3986	2077	1909	1000	2048	1931	1208	723	1622	1460	14	2	3	1441	162	2364
2	Joruli	753	3196	1615	1581	460	977	1648	988	660	1044	956	13	3	5	935	88	2152
3	Bholebada	518	2196	1071	1125	193	1785	1168	667	501	1064	452	345	14	0	93	612	719
4	Jajang	1820	7482	3978	3504	977	4081	3633	2372	1261	2916	2421	22	2	2	2395	495	4566

2.4.2: Habitation-Zone of Impact:

The demographic profile of the Zone of Impact of both Keonjhar District and Sundergarh District as per 2011 Census is as furnished below:

Table 2.4: Demographic profile of the Zone of the Impact.

Village	Total No. of Households	Total Population	Total Male	Total Female	Population SC	Population ST	Population Literate	Male Literate	Female Literate	Working Population	Main-worker Population	Cultivator Population	Agriculture Worker	Household Industry	Other Population	Marginal Population	Non-Working Population
Rural Areas																	
Jalahari	963	3986	2077	1909	1000	2048	1931	1208	723	1622	1460	14	2	3	1441	162	2364
Joruli	753	3196	1615	1581	460	977	1648	988	660	1044	956	13	3	5	935	88	2152
Bandhuabada	108	573	289	284	7	524	266	157	109	192	144	52	5	0	87	48	381
Jadibahal	336	1228	631	597	73	718	642	380	262	599	379	1	7	1	370	220	629
Kudupi	66	311	144	167	0	109	180	98	82	153	35	12	2	0	21	118	158



Site specific wildlife conservation plan of Jilting Langalota Iron Ore
Mines of OMC Ltd. under Barbil Tahasil of Keonjhar District of Odisha



Village	Total No. of Households	Total Population	Total Male	Total Female	Population SC	Population ST	Population Literate	Male Literate	Female Literate	Working Population	Main-worker Population	Cultivator Population	Agriculture Worker	Household Industry	Other Population	Marginal Population	Non-Working Population
Satkhalia	198	932	445	486	0	827	450	281	169	536	257	141	69	2	45	279	396
Chilikapost	35	123	64	59	0	0	82	49	33	81	18	14	0	0	4	63	42
Khuntapada	82	309	158	151	0	144	195	111	84	178	176	148	21	0	7	178	131
Mahabirapasi	74	331	168	163	0	330	108	73	35	179	1	0	0	0	1	178	152
Bholabada	518	2196	1071	1125	193	1785	1186	684	502	1239	307	85	30	85	107	932	957
Bhulada	422	1783	894	889	118	1113	1168	667	501	1064	452	345	14	0	93	612	719
Daduan	357	1718	851	867	131	877	701	444	257	719	389	135	20	4	230	330	999
Karnalpur	206	926	474	452	60	451	354	214	140	352	186	48	1	4	133	166	574
Gurutuan	118	531	259	272	53	475	264	164	100	279	102	40	3	4	55	177	252
Namira	132	654	335	319	24	281	247	152	95	159	6	0	0	0	6	153	495
Kundaposi (Kunaposi)	242	1064	527	537	83	669	497	311	186	373	140	1	0	2	137	233	691
Palasa (Ka)	365	1681	817	864	194	914	690	416	274	658	147	11	3	3	130	511	1023
Palasa (Kha)	320	1294	678	616	26	766	458	309	149	448	427	33	0	0	394	21	846
Guruda	496	2051	1063	988	221	1033	1115	710	405	744	641	6	2	4	629	103	1307
Tadapani	144	656	335	321	80	493	272	183	89	206	99	0	6	0	93	107	450
Balade	285	1312	628	684	46	1096	469	296	173	448	85	5	5	0	75	363	864
Rugudi	203	808	411	397	110	345	287	180	107	224	219	121	1	0	97	5	584
Gugudari	59	275	132	143	0	273	76	51	25	152	55	54	1	0	0	97	123
Banekala	71	319	168	151	51	60	194	113	81	180	135	61	47	5	22	45	139
Jamunapasi	21	88	41	47	4	0	62	33	29	35	6	0	1	0	5	29	53
Karnagoda	343	1325	673	652	0	1301	880	505	375	1003	402	262	118	12	10	601	322
Sunapost	72	433	216	217	9	424	169	113	56	303	231	111	108	0	12	72	130
Khalimenta	694	3076	1528	1548	417	342	2150	1169	981	984	901	553	124	15	209	83	2092
Banbari	70	313	147	166	48	49	213	109	104	102	102	38	40	2	22	0	211
Jhambhara	225	1114	578	536	280	0	833	461	372	353	332	98	118	2	114	21	761
Kundurupani	107	486	249	237	56	370	206	134	72	199	21	0	0	0	21	178	287
Jamirita	78	389	206	183	14	375	100	64	36	237	105	26	2	0	77	132	152



Site specific wildlife conservation plan of Jililing Langalota Iron Ore
Mines of OMC Ltd. under Barbil Tahasil of Keonjhar District of Odisha



Village	Total No. of Households	Total Population	Total Male	Total Female	Population SC	Population ST	Population Literate	Male Literate	Female Literate	Working Population	Main-worker Population	Cultivator Population	Agriculture Worker	Household Industry	Other Population	Marginal Population	Non-Working Population
Jamunapost	50	220	122	98	0	79	112	66	46	96	70	19	0	0	51	26	124
Belda	225	943	475	468	7	575	426	246	180	315	203	46	19	0	138	112	628
Bhandardih	93	356	171	185	10	176	157	84	73	161	118	24	0	0	94	43	195
Jaganathapur	102	452	229	223	0	451	208	135	73	184	95	2	3	3	87	89	268
Patbed	34	145	79	66	8	129	50	30	20	43	43	0	0	0	43	0	102
Kadamdih	105	514	249	265	0	416	73	42	31	173	150	2	0	0	148	23	341
Unchabali	255	1152	581	571	3	711	449	276	173	377	283	43	5	1	234	94	775
Sreejoda	507	1862	977	885	144	1116	707	482	225	826	697	2	0	2	693	129	1036
Jamunpani	36	152	76	76	0	124	47	33	14	65	42	0	0	0	42	23	87
Dobuna	293	1396	703	693	383	496	793	485	308	595	432	4	0	1	447	143	801
Mukundapur	131	723	356	367	43	419	403	236	167	290	90	5	4	9	72	200	433
Kankadapat	188	903	436	467	121	768	336	201	135	341	127	115	5	0	7	214	562
Purunapani	31	150	64	86	0	96	43	24	19	29	15	2	0	0	13	14	121
Kalimati	138	632	292	340	0	630	456	241	215	384	166	159	0	0	7	218	248
Gayalmunda	48	216	104	112	0	216	50	38	12	64	28	0	28	0	0	36	152
Bhadrasahi	281	1329	712	617	145	541	831	516	315	410	358	1	0	6	351	52	919
Tarbo	154	690	351	339	34	576	257	176	81	268	260	4	0	0	256	8	422
Jhadgaon	256	1064	542	522	185	672	564	350	214	354	322	2	0	0	320	32	710
Bhusagaon	482	2207	1157	1050	293	512	1336	772	564	619	439	8	0	9	422	180	1588
Katesahi	128	524	261	263	25	390	140	95	45	145	127	2	0	0	125	18	379
Topadhi	234	1042	656	386	26	768	597	478	119	519	493	8	0	6	479	26	533
Laidapada	283	1393	822	571	93	677	866	595	271	621	614	15	8	1	590	7	772
Ruguidih	158	648	331	317	29	337	289	194	95	215	208	10	0	2	196	7	433
Kalnanga	323	1290	634	656	265	686	637	406	231	437	303	34	0	2	267	134	853
Gidei	45	226	108	118	0	226	45	35	14	50	50	2	0	0	48	0	176
Maida	147	564	297	267	113	363	238	143	95	174	174	0	0	0	174	0	390
Deoghari	51	223	119	104	0	155	41	26	15	65	64	1	4	0	59	1	158



Site specific wildlife conservation plan of Jilting Langalota Iron Ore
Mines of OMC Ltd. under Barbil Tahasil of Keonjhar District of Odisha



Village	Total No. of Households	Total Population	Total Male	Total Female	Population SC	Population ST	Population Literate	Male Literate	Female Literate	Working Population	Main-worker Population	Cultivator Population	Agriculture Worker	Household Industry	Other Population	Marginal Population	Non-Working Population
Ganua	376	1617	820	797	266	931	687	446	241	442	297	29	1	8	259	145	1175
Champadih	27	124	64	60	36	32	52	30	22	65	39	5	23	3	8	26	59
Chiplinda	111	487	246	241	66	167	301	181	120	254	130	16	40	0	74	124	233
Binodabharipur(Kha)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Binodabharipur(Ka)	89	338	175	163	12	155	186	117	69	110	71	59	4	3	5	39	228
Kanjipani	138	578	297	281	26	259	313	197	116	317	233	101	94	7	31	84	261
Kankadajodi	81	384	192	192	10	348	131	79	52	187	5	3	2	0	0	182	197
Goonathpur	94	365	187	176	41	79	227	134	93	202	126	64	17	2	43	76	161
Bagbhaghere	68	291	149	142	0	197	164	105	59	171	74	42	1	8	23	97	120
Bangura	1211	5292	2684	2608	1100	2041	3525	2001	1524	1687	1438	163	421	40	814	249	3605
Total Rural	15138	65971	33591	32380	7242	35883	38834	20522	13312	26300	17320	3420	1432	266	12202	8980	39671
Urban Area																	
Jalanga (CT)	1820	7482	3978	3504	977	4081	3633	2372	1261	2916	2421	22	2	2	2395	495	4566
Joda	4527	19190	10130	9060	2615	7426	10757	6595	4162	6442	5678	27	6	94	5551	764	12748
Balagoda (Boleni)(CT)	2707	11708	6152	5556	1638	3945	7124	4223	2901	3526	3257	5	4	92	3156	269	8182
Total Urban	9054	38380	20260	18120	5230	14852	21514	13190	8324	12884	11356	54	12	188	11102	1528	25496



2.5: Flora and Fauna:

The list of flora and fauna found in the region was taken from Working Plan of Keonjhar Forest Division (the study area is located within this Forest Division). Using this list as a reference, examining earlier vegetation survey reports and by conducting field surveys, the species of plants and animals found in the study area was prepared. Density and diversity of vegetation in the forest areas was determined by sample surveys in selected areas. At different areas of the forest, sampling sites were selected considering slope, relative altitude (hill top, valley, part of the way up the hill), density of vegetation, height of trees, distance from mines/ villages etc.

The study area lies in the Eastern Highlands sub-zone of the Eastern Plateau and Hills agro- climatic zone. Most of the area is hilly. Almost the entire area is rural and is covered with forests, villages and iron-ore mines. The part of the lease area lies within Baitarani Reserved Forest.

These forests are classified as Northern Tropical Dry Deciduous Forests. In some areas, Dry Deciduous Scrub Forests have developed due to biotic influences.

The following types of forests are found in the study area:

Moist peninsular Sal Forests

Though, it is at its best in the sheltered valleys having deep sandy loam type of soil with adequate moisture content but it also ascends up to the upper slopes, ridges and flat top of hills provided soil is well drained deep loam. The crop is often well stocked with even aged pole crops of almost pure Sal. Under this broad type, three subtypes, i.e. the High Level Sal, Low Level Sal and Valley Sal are found in the area and their floristics are described separately below.

High Level Sal Forests

This sub-type is confined to the upper slopes, ridges and flat tops of hills. These areas are mostly having crystalline and laterite type of rocks. In these areas, the patches of mixed forests with predominance of *Anogeissus latifolia* are also found within the Sal belts. Regeneration of Sal is fairly well but there is risk of annual repeated fire. The area is free from frost. The common associates of Sal available in the top canopy are *Terminalia tomentosa*, *Anogeissus latifolia*, *Syzygium cumini*, *Pterocarpus marsupium*. The middle storey contains *Careya arborea*, *Ougenia oogenes* etc. *Helecteris isora* and *Indigofera pulchella* are commonly found as undergrowth. The common species of climbers available in the area are *Bauhinia vahlii* and *Smilax zeylanica*. *Themeda* and *Imperata* are the common grasses. *Dendrocalamus* does not occur in this subtype.



Low Level Sal Forests

This sub-type is fairly extensive in the lower and middle slopes of hills of all important forest blocks in the Koirā plateau. The underlying rocks are laterite or crystallite and soil is deep loam or alluvium and supports a magnificent crop of sal. The canopy is usually full and regeneration is good but severe biotic pressure and annual repeated fires are the major constraints for the establishment of seedlings. At many places, Sal occurs almost as a pure crop constituting more than 90% of standing crop. The common associates of Sal available in the top canopy are *Terminalia tomentosa*, *Pterocarpus marsupium*, *Gmelina arborea*, *Bombax ceiba* etc. The middle storey comprises of species like *Syzygium cumini*, *Careya arborea* and *Diospyros melanoxylon*. The ground flora consists of *Woodfordia fruticosa*, *Flemingia chappar*, *Helecteris isora*, etc. The common climbers available are *Combretum decandrum* and *Butea superba*. Bamboos are absent.

Valley Sal Forests

This sub-type is confined to the moist valleys of forest blocks. In some localities sound sal trees having height more than 30 m are also seen. The density varies from 0.6 to 0.8. The stocking of crop is full and Sal constitutes 75 to 90% of the standing crop. The trees are of magnificent height and timber is perfectly sound. Natural regeneration of sal is excellent but establishment of seedlings is not satisfactory due to biotic interference and fire hazards. The common associates of Sal in the top canopy are – *Terminalia tomentosa*, *Schleichera oleosa*, etc. The lower storey comprises of *Careya arborea*, *Pterocarpus marsupium*, and *Ficus* spp. The under growth consist of *Croton oblongifolius*, *Clausena excavate*, *Murraya exotica*, *Clochidion lanceolarium* and *Litsea sebifera*. The common climbers available are *Bauhinia vahlii*, *Smilax macrophylla* and *Combretum decandrum*. Bamboos are absent in these areas.

Northern Dry Mixed Deciduous Forests

The extent of this type of miscellaneous forest is small and confined to the exposed localities having southern aspect. Terrain under this type is having fairly steep slope with rocky out crops. Here, Sal is either absent or confined to pockets of deeper soil. The crop is open with poor and stunted growth of trees. The species predominant under this type are *Anogeissus latifolia*, *Diospyrus melanoxylon*, *Terminalia tomentosa*, *Pterocarpus marsupium*, *Terminalia chebula*, *Dalbergia* spp., *Ougeinia oojemensis*, *Buchanania lanzan*, *Syzygium cumini*, *Madhuca Indica*, *Schleichera oleosa* etc. The shrub growth consists of *Gardenia turgida*, *Randia dumet*, *Holarrhena antidysenterica* and *Nyctanthes abortivis*. *Salia bamboo* (*Dendrocalmus strictus*) occurs in abundance in this type of forest.



2.5.1: Flora in Core Zone:

The flora situated within the Mining Lease area is given as under:

Table. 2.5: Flora in the Core Zone:

Sl. No.	Botanical Name	Local Name	Family	Remarks
TREES				
1.	<i>Acacia auriculiformis</i>	Sunajhari	Mimosaceae	Introduced species
2.	<i>Acacia nilotica</i>	Acacia	Mimosaceae	
3.	<i>Alamgium lamarkii</i>	Ankula	Cornaceae	
4.	<i>Adinacordifolia</i>	Kurum/Haldu	Rubiaceae	
5.	<i>Aegle marmelos</i>	Bela	Rutaceae	
6.	<i>Ailanthus excelsa</i>	Simaroub	Simaroubaceae	
7.	<i>Albizia lebbek</i>	Kalasiris	Mimosaceae	
8.	<i>Albizia procera</i>	Safedsiris	Mimosaceae	
9.	<i>Alstonia scholaris</i>	Chhatin	Apocynaceae	
10.	<i>Anogeissus latifolia</i>	Dhaura	Combretaceae	
11.	<i>Anthocephalus cadamba</i>	Kadamba	Rubiaceae	Cultivated
12.	<i>Artocarpus heterophyllus</i>	Panas	Moraceae	
13.	<i>Azadirachta indica</i>	Neem/Limba	Meliaceae	
14.	<i>Bauhinia variegata</i>	Kanchan	Caesalpiniaceae	
15.	<i>Bombax celba</i>	Semil	Bombacaceae	
16.	<i>Bridellia retusa</i>	Kasl	Euphorbiaceae	
17.	<i>Buchanania lanzan</i>	Char	Anacardiaceae	
18.	<i>Bursera serrata</i>	Andiri (Rajmal)	Burseraceae	
19.	<i>Careya arborea</i>	Kumbhi	Lecythidaceae	
20.	<i>Casuarina tomentosa</i>	Khakada	Salicaceae	
21.	<i>Cassia fistula</i>	Sonari	Caesalpiniaceae	
22.	<i>Cassia siamea</i>	Chakunda	Caesalpiniaceae	Cultivated species
23.	<i>Crataeva religiosa</i>	Baruna	Capparidaceae	
24.	<i>Chloroxylon swietenia</i>	Bheru	Meliaceae	
25.	<i>Cleistanthus collinus</i>	Karada	Euphorbiaceae	
26.	<i>Dalbergia sissoo</i>	Sisoo	Fabaceae	
27.	<i>Delonix regia</i>	Krishnachuda	Caesalpiniaceae	Introduced species
28.	<i>Diospyros embryopteris</i>	Kalakendu	Ebenaceae	
29.	<i>Diospyros malabarica</i>	Mankadakendu	Ebenaceae	
30.	<i>Diospyros melanoxylon</i>	Kendu	Ebenaceae	
31.	<i>Embelica officinalis</i>	Amla	Phyllanthaceae	
32.	<i>Eucalyptus species</i>	Nilagiri	Myrtaceae	Introduced species
33.	<i>Ficus benghalensis</i>	Baro	Moraceae	
34.	<i>Ficus racemosa</i>	Dimiri	Moraceae	
35.	<i>Ficus religiosa</i>	Jodi	Moraceae	
36.	<i>Gmelina arborea</i>	Gambhari	Verbenaceae	
37.	<i>Grewia tillaefolia</i>	Dhaman	Tiliaceae	
38.	<i>Glochidion lanceolatum</i>	Kalucha	Euphorbiaceae	
39.	<i>Gardenia latifolia</i>	Katrang	Rubiaceae	
40.	<i>Hymenodictyon excelsum</i>	Kansa	Rubiaceae	
41.	<i>Lagerstroemia parviflora</i>	Sennha (Sidha)	Lythraceae	
42.	<i>Lannea coromandelica</i>	Moi	Anacardiaceae	
43.	<i>Lemonia acidissima</i>	Behenta	Rutaceae	
44.	<i>Madhuca indica</i>	Mahul	Sapotaceae	
45.	<i>Mallotus philippensis</i>	Kamalagundi	Euphorbiaceae	
46.	<i>Mangifera indica</i>	Amba	Anacardiaceae	
47.	<i>Moringa oleifera</i>	Sajina	Moringaceae	Cultivated species



48	<i>Oroxylum indicum</i>	Phemphana	Bignoniaceae	
49	<i>Peltophorum ferrugineum</i>	Radhachuda	Caesalpinaceae	
50	<i>Pongamia pinnata</i>	Karanja	Fabaceae	Introduced species
51	<i>Psidium guajava</i>	Amrud (Pijul)	Myrtaceae	Cultivated species
52	<i>Pterocarpus marsupium</i>	Bija	Fabaceae	
53	<i>Samanea saman</i>	Chakunda (Bada)/Raintree	Mimosaceae	
54	<i>Schleichera oleosa</i>	Kusum	Sapindaceae	
55	<i>Semecarpus anacardium</i>	Bana Bhalia	Anacardiaceae	
56	<i>Shorea robusta</i>	Sal	Dipterocarpaceae	Dominant Species
57	<i>Spondias mangifera</i>	Ambada	Anacardiaceae	Cultivated species
58	<i>Strebulus aspera</i>	Sahada	Moraceae	
59	<i>Strychnos nux-vomica</i>	Kochila	Strychnaceae	
60	<i>Symphorema polyanthum</i>	Mahasindhua	Verbenaceae	
61	<i>Syzygium cumini</i>	Jamun	Myrtaceae	
62	<i>Syzygium operculata</i>	Pitajamu (poi-gam)	Myrtaceae	
63	<i>Tamarindus indica</i>	Tentul	Caesalpinaceae	
64	<i>Tectona grandis</i>	Saguna (Teak)	Verbenaceae	Introduced species
65	<i>Terminalia arjuna</i>	Arjun	Combretaceae	
66	<i>Terminalia bellirica</i>	Bahada	Combretaceae	
67	<i>Terminalia chebula</i>	Harida	Combretaceae	
68	<i>Terminalia tomentosa</i>	Sahaja (Asana)	Combretaceae	
69	<i>Trewia nudiflora</i>	Panigambhari	Euphorbiaceae	
70	<i>Zizyphus jujube</i>	Ghanto	Rhamnaceae	
71	<i>Zizyphus mauritiana</i>	Barakoli	Rhamnaceae	
Herbs & Shrubs				
1.	<i>Achyranthes aspera</i>	Apamaranga	Amaranthaceae	
2.	<i>Andrographis paniculata</i>	Bhuin-	Acanthaceae	
3.	<i>Annona squamosa</i>	Ata/Seetaphal	Annonaceae	Cultivated species
4.	<i>Aristolochia bracteata</i>	Hansalata	Aristolochiaceae	
5.	<i>Boerhavia diffusa</i>	Punarnava/Pugincannava	Nyctaginaceae	
6.	<i>Calotropis procera</i>	Arakha (arka)	Asclepiadaceae	
7.	<i>Casuarina tomentosa</i>	Khakada (Kakali)	Flacourtiaceae	
8.	<i>Cassia tora</i>	Dholachakunda	Caesalpinaceae	
9.	<i>Clerodendron infortunatum</i>	Bhant	Verbenaceae	
10.	<i>Colocasia esculenta</i>	Saru	Araceae	
11.	<i>Curcuma amada</i>	Amada/Ama-haldi	Zingiberaceae	
12.	<i>Curcuma aromatica</i>	Palua/Bana-haldi	Zingiberaceae	
13.	<i>Curcuma angustifolia</i>	Palma/Palagunda	Zingiberaceae	
14.	<i>Datura stramonium</i>	Datura (Duddura)	Solanaceae	
15.	<i>Eupatorium odoratum</i>	Pokasunga	Asteraceae	Invasive Species
16.	<i>Euphorbia hirta</i>	Hariharika	Euphorbiaceae	
17.	<i>Euphorbia tirucalli</i>	Khadisiju	Euphorbiaceae	
18.	<i>Flemingia strobilifera</i>	Ranikathi	Fabaceae	
19.	<i>Gardenia grandifolia</i>	Khuradu	Rubiaceae	
20.	<i>Grewia hirsuta</i>	Sunaragoda	Tiliaceae	
21.	<i>Helicteres isora</i>	Antia (Murmura)	Sterculiaceae	
22.	<i>Hemidesmus indicus</i>	Anata-mula	Asclepiadaceae	
23.	<i>Holarrhena antidysenterica</i>	Kurei/Kurmi	Apocynaceae	
24.	<i>Hydrocotyle asiatica</i>	Brahmi/Thalkuni	Apiaceae	
25.	<i>Hyptis suaveolens</i>	Ganga-tulasi	Lamiaceae	
26.	<i>Indigofera pulchella</i>	Giri	Fabaceae	
27.	<i>Ipomoea carnea</i>	Besharam/Omor	Convolvulaceae	
28.	<i>Jatropha gossypifolia</i>	Nilabalgaba	Euphorbiaceae	



29	<i>Lantanacamera</i>	Nagauri(Nagaboli)	Verbenaceae	
30	<i>Lawsonialnermis</i>	Mehandi(Manjuati)	Lythraceae	
31	<i>Mimosapudica</i>	Lajuli	Mimosaceae	
32	<i>Murrayakoenigii</i>	Bhursunga (Mirsingapattra)	Rutaceae	
33	<i>Murrayaexotica</i>	Kaminic	Rutaceae	
34	<i>Partheniumhysterophorus</i>	Parthenium	Asteraceae	Invasive species
35	<i>Phoenixacaulis</i>	Ban-Khajuri	Arecaceae	
36	<i>Plithcellobiumdulce</i>	Simakolna	Mimosaceae	
37	<i>Plumbagorosea/Pindica</i>	Raktachitapar(Lal-chita)	Plumbaginaceae	
38	<i>Plumbagozeylanica</i>	Sitapar/Dhola-chitapar	Plumbaginaceae	
39	<i>Premnaherbacea</i>	Gudamari	Verbenaceae	
40	<i>Randiadumetorum</i>	Mohana(Pottua)	Rubiaceae	
41	<i>Ricinuscommunis</i>	Jada	Euphorbiaceae	
42	<i>Sidacordifolia</i>	Bisiripi/Bajramuli	Malvaceae	
43	<i>Solanumxanthocarpum</i>	BhejiBaigana(Ankaranti)	Solanaceae	
44	<i>Tephrosiaspp.</i>	-	Fabaceae	
45	<i>Tribulusterrestris</i>	Gokhara	Averrhoaceae	
46	<i>Tridaxprocumbens</i>	Bisalya-	Asteraceae	
47	<i>Vitexnegundo</i>	Nirgundi(Begunia)	Verbenaceae	
48	<i>Wendlandiatinctoria</i>	Tilai	Rubiaceae	
49	<i>Withaniasomnifera</i>	Ashwagandha	Solanaceae	
50	<i>Woodfordiafruticosa</i>	Dhatiki	Lythraceae	
51	<i>Ziziphus mauritiana</i>	Barkoli	Rhamnaceae	
52	<i>Zizyphusenoplea</i>	Kantelkoll	Rhamnaceae	
Climbers				
1.	<i>Abrusprecatorius</i>	Gunja(Kaincha)	Fabaceae	
2.	<i>Acacia sinuata</i>	Dantari(Nali-Kantia)	Mimosaceae	
3.	<i>Asparagusracemosus</i>	Satawar	Liliaceae	
4.	<i>Bauhinia vahlii</i>	Siali	Caesalpinaceae	
5.	<i>Cassythafiliformis</i>	Nirmuli	Cassytha	
6.	<i>Combretumdecandrum</i>	Atundi	Combretaceae	
7.	<i>Cryptolepisbuchananii</i>	Dudhi-mal	Periplocaceae	
8.	<i>Dioscoreadeltoidea</i>	DesiAlu	Dioscoreaceae	
9.	<i>Dioscoreahispida</i>	KaruKando/Kulihakanda	Dioscoreaceae	
10.	<i>Entadascandens/E.pursaitii</i>	Gilo	Mimosaceae	
11.	<i>Gloriosasuperba</i>	Meherlaphulo	Liliaceae	
12.	<i>Hiptagernadabloti</i>	Madhumalati	Malpighiaceae	
13.	<i>Loranthusscurrula</i>	Madang	Loranthaceae	
14.	<i>Millettiaauriculata</i>	Arkawla	Fabaceae	
15.	<i>Smilax macrophylla</i>	Muturi	Smilacaceae	
16.	<i>Symphoremmapolyandrum</i>	Mahasindhu	Verbenaceae	
17.	<i>Ventilagodenticulata</i>	Pitchuli/Kantamali	Rhamnaceae	
18.	<i>Mucunamonosperma</i>	Baidanka	Papilionaceae	
19.	<i>Urticadioca</i>	Bichhuati	Euphorbiaceae	
Grasses				
1.	<i>Aristidasetacea</i>	Ghodalanji	Poaceae	
2.	<i>Arundinellasetosa</i>	Jharu	Poaceae	
3.	<i>Bambusaarundinacea</i>	DabaBauns(Kanta)	Poaceae	
4.	<i>Bambusanutans</i>	BadiaBauns	Poaceae	
5.	<i>Bambusatulda</i>	TaledaBauns	Poaceae	
6.	<i>Bambusavulgaris</i>	Sundarkanl	Poaceae	
7.	<i>Bothriochloapertma</i>	Basana	Poaceae	
8.	<i>Bothriochloabladhli</i>	Gondabena	Poaceae	
9.	<i>Chrysopogongryllus</i>	Guguchia	Poaceae	
10.	<i>Cymbopogonflexuosus</i>	Dhanwaritari	Poaceae	
11.	<i>Cymbopogonmatinil</i>	Rosagrass	Poaceae	
12.	<i>Cynodondactylon</i>	Duba(Dhubo)	Poaceae	
13.	<i>Dendricalamusstrictus</i>	Bauns(Saliabamboo)	Poaceae	



14	<i>Eragrostiscoareolata</i>	Kojijhipa(Kuti)	Poaceae	
15	<i>Eragrostisunfolioides</i>	PhuriPhuri	Poaceae	
16	<i>Eulaliopsisbinata</i>	Sabal(Panasi)	Poaceae	
17	<i>Heteropogoncontortus</i>	Sinkulia	Poaceae	
18	<i>Ichaemumrugosum</i>	Tuil	Poaceae	
19	<i>Imperataarundinaceae</i>	Chhana	Poaceae	
20	<i>Thysanolaenamaxima</i>	Phulbadhun(PhulJhadu)	Poaceae	
21	<i>Vetiveriazizanolodes</i>	Khus-Khus(Bena)	Poaceae	

2.5.1: Flora in the Buffer Zone (Zone of Impact):

The buffer zone comprises of forests, grasslands, settlements, agricultural land, plantations, mines & mining infrastructure and a steel plant. The important plants found in the study area are given as under:

Table. 2.6: Flora in the Buffer Zone:

Sl. no	Botanical name	Local name	Family	Remarks
TREES				
1.	<i>Acaciaauriculiformis</i>	Sunajhari	Mimosaceae	Introduced species
2.	<i>Acaciacatechu</i>	Khaira	Mimosaceae	
3.	<i>Acacialeucophloea</i>	Gohira	Mimosaceae	
4.	<i>Acacia nilotica</i>	Babul	Mimosaceae	
5.	<i>Adinacordifolia</i>	Haldu(Halamda)	Rubiaceae	
6.	<i>Aeglemarmelos</i>	Belo	Rutaceae	
7.	<i>Allanthusexcelsa</i>	Simaroub	Simaroubaceae	
8.	<i>Alangiumlamarkii</i>	Ankula	Alangiaceae	
9.	<i>Albizialebeck</i>	Kalasiris	Mimosaceae	
10.	<i>Albizia procera</i>	Safedsiris	Mimosaceae	
11.	<i>Alstoniascholaris</i>	Chhatin	Apocynaceae	
12.	<i>Annonareticulata</i>	Ramphala	Annonaceae	Cultivated species
13.	<i>Anogeissusacuminata</i>	Phasi	Combretaceae	
14.	<i>Anogeissuslatifolia</i>	Dhaura	Combretaceae	
15.	<i>Anthocephaluscadamba</i>	Kadamba	Rubiaceae	
16.	<i>Artocarpusheterophyllus</i>	Panas	Moraceae	
17.	<i>Artocarpuslakoocha</i>	Jeokiba(Makeyjack)	Moraceae	
18.	<i>Azadiractaindica</i>	Neem/Limba	Meliaceae	
19.	<i>Barringtoniaacutangula</i>	Hinjai	Barringtoniaceae	
20.	<i>Bauhinia purpurea</i>	Kullari(Debakanchan)	Caesalpinaceae	
21.	<i>Bauhinia racemosa</i>	Ambalata	Caesalpinaceae	
22.	<i>Bauhinia variegata</i>	Kanchan	Caesalpinaceae	
23.	<i>Bixaorellana</i>	Japhra	Bixaceae	
24.	<i>Bombaxcelba</i>	Semil	Bombacaceae	
25.	<i>Boswelliaserrata</i>	Salal	Burseraceae	
26.	<i>Bridellaretusa</i>	Kasi	Euphorbiaceae	
27.	<i>Buchananialanzan</i>	Char	Anacardiaceae	
28.	<i>Burseraserrata</i>	Andiri(Rajmal)	Burseraceae	
29.	<i>Buteamonosperma</i>	Palasa	Fabaceae	
30.	<i>Callicarpa arborea</i>	Badopatri	Verbenaceae	
31.	<i>Caryea arborea</i>	Kumbhi	Lecythidaceae	
32.	<i>Cascabelathevetia</i>	Konlyari	Apocynaceae	
33.	<i>Casearlatomentosa</i>	Khakada	Salicaceae	
34.	<i>Cassia fistula</i>	Sunari	Caesalpinaceae	
35.	<i>Cassia siamea</i>	Chakundi	Caesalpinaceae	Introduced species
36.	<i>Chloroxylonswietenia</i>	Bheru	Rutaceae	
37.	<i>Cleistanthuscollinus</i>	Karda	Euphorbiaceae	



38.	<i>Cochlospermum gossypium</i>	Goniar (Kantapalas)	Cochlospermaceae	
39.	<i>Crateva religiosa/C. nurvala</i>	Barun	Capparaceae	
40.	<i>Dalbergia latifolia</i>	Pahadisi soo	Fabaceae	
41.	<i>Dalbergia paniculata</i>	Barbakulia	Fabaceae	
42.	<i>Dalbergia sissoo</i>	Sissoo	Fabaceae	
43.	<i>Delonix regia</i>	Krushna Chuda/Gulmoh	Caesalpinaceae	Cultivated species
44.	<i>Desmodium ojeinensis</i>	Bandhan	Fabaceae	
45.	<i>Dillenia pentagyna</i>	Rai	Dilleniaceae	
46.	<i>Diospyros malabarica</i>	Mankadakendu	Ebenaceae	
47.	<i>Diospyros melanoxylon</i>	Kendu	Ebenaceae	
48.	<i>Diospyros montana</i>	Haldi	Ebenaceae	
49.	<i>Emblica officinalis</i>	Amia	Euphorbiaceae	
50.	<i>Erythrina suberosa</i>	Balthia (paldhua)	Fabaceae	
51.	<i>Eucalyptus species</i>	Nilagiri	Myrtaceae	Introduced species
52.	<i>Feronia elephantum</i>	Kaltho	Rutaceae	
53.	<i>Ficus benghalensis</i>	Baro	Moraceae	
54.	<i>Ficus glomerata</i>	Dimiri	Moraceae	
55.	<i>Ficus religiosa</i>	Pipal	Moraceae	
56.	<i>Gardenia latifolia</i>	Damkuruda	Rubiaceae	
57.	<i>Garuga pinnata</i>	Kenkat	Burseraceae	
58.	<i>Gmelina arborea</i>	Gambhari	Verbenaceae	
59.	<i>Grewia liliifolia</i>	Dhaman	Tiliaceae	
60.	<i>Holoptelia integrifolia</i>	Dauranja	Ulmaceae	
61.	<i>Hymenodictyon excelsum</i>	Kansa	Rubiaceae	
62.	<i>Kydia calycina</i>	Bankapasia	Malvaceae	
63.	<i>Lagerstroemia parviflora</i>	Senna (Sidha)	Lythraceae	
64.	<i>Lannea coromandelica</i>	Mol	Anacardiaceae	
65.	<i>Limonia acidissima</i>	Bhenta	Rutaceae	
66.	<i>Litsea macrophylla</i>	Gadapanasa (Baghoari)	Lauraceae	
67.	<i>Macaranga peltata</i>	Gondaguria	Euphorbiaceae	
68.	<i>Madhuca indica</i>	Mahul	Sapotaceae	
69.	<i>Mallotus philippensis</i>	Kamalagundi	Euphorbiaceae	
70.	<i>Mangifera indica</i>	Amba	Anacardiaceae	
71.	<i>Michelia champaca</i>	Champa	Magnoliaceae	Cultivated species
72.	<i>Millettia velutina</i>	Gandhapalasa	Annonaceae	
73.	<i>Mitragyna parvifolia</i>	Mundi	Rubiaceae	
74.	<i>Moringa tinctoria</i>	Achu	Rubiaceae	
75.	<i>Moringa oleifera</i>	Munagha (Sajana)	Moringaceae	
76.	<i>Oroxylum indicum</i>	Phemphana	Bignoniaceae	
77.	<i>Peltophorum ferrugineum</i>	Radhachuda	Caesalpinaceae	Cultivated species
78.	<i>Phoenix sylvestris</i>	Khajuri	Arecaceae	
79.	<i>Plumeria spp.</i>	Frangipani	Apocynaceae	Cultivated species
80.	<i>Polyalthia longifolia</i>	Debadaru (Ashoka)	Annonaceae	Cultivated species
81.	<i>Pongamia pinnata</i>	Karanja	Fabaceae	
82.	<i>Psidium guajava</i>	Amrud (Pijuli)	Myrtaceae	Cultivated species
83.	<i>Pterocarpus marsupium</i>	Bija	Fabaceae	
84.	<i>Pterospermum heyneanum</i>	Giringa	Sterculiaceae	
85.	<i>Pterospermum suaveolens</i>	Padhel (Chuinpatoli)	Sterculiaceae	
86.	<i>Samanea saman</i>	Chakunda (Bada)/Raintree	Mimosaceae	
87.	<i>Sapindus mucronosus</i>	Rithaphala (Muktamanja)	Sapindaceae	
88.	<i>Saraca asoca</i>	Ashoka	Caesalpinaceae	
89.	<i>Schleichera oleosa</i>	Kusum	Sapindaceae	
90.	<i>Schrebera swietenoides</i>	Mokha/Mukha	Oleaceae	
91.	<i>Semecarpus anacardium</i>	Bhalla	Anacardiaceae	
92.	<i>Sesbania grandiflora</i>	Agasti	Fabaceae	
93.	<i>Shorea robusta</i>	Sal	Dipterocarpaceae	Dominant Species
94.	<i>Soymda febrifuga</i>	Rohini	Meliaceae	
95.	<i>Spathodea campanulata</i>	Tuliptree (African)	Bignoniaceae	
96.	<i>Spondias mangifera</i>	Ambada	Anacardiaceae	
97.	<i>Sterculia urens</i>	Genduli	Sterculiaceae	



98.	<i>Strebulus aspera</i>	Sahada	Moraceae	
99.	<i>Strychnos nux-vomica</i>	Kochila	Strychnaceae	
100.	<i>Swietenia mahogany</i>	Mahagni	Meliaceae	
101.	<i>Syzygium cumini</i>	Jamun	Myrtaceae	Introduced species
102.	<i>Syzygium operculata</i>	Pitajamu (poi-gam)	Myrtaceae	
103.	<i>Tamarindus indica</i>	Tentuli	Caesalpinaceae	
104.	<i>Tamilnadia uliginosa</i>	Thelka	Rubiaceae	
105.	<i>Tectonagrandis</i>	Saguan (Teak)	Verbenaceae	Introduced species
106.	<i>Terminalia alata</i>	Asana	Combretaceae	
107.	<i>Terminalia bellirica</i>	Bahada	Combretaceae	
108.	<i>Terminalia chebula</i>	Harida	Combretaceae	
109.	<i>Terminalia tomentosa</i>	Sahaja (Asan)	Combretaceae	
110.	<i>Toona ciliata</i>	Toon	Meliaceae	
111.	<i>Trewia nudiflora</i>	Panigambhari	Euphorbiaceae	
112.	<i>Vitex peduncularis</i>	Chadaigudi	Verbenaceae	
113.	<i>Wrightia tomentosa</i>	Bod-kurhein	Apocynaceae	
114.	<i>Xylocarpus xylocarpa</i>	Tangini	Mimosaceae	
115.	<i>Zizyphus jujube</i>	Ghanto	Rhamnaceae	
116.	<i>Zizyphus mauritiana</i>	Barakoli	Rhamnaceae	
Herbs & Shrubs				
1.	<i>Achyranthes aspera</i>	Apamaranga	Amaranthaceae	
2.	<i>Adhatoda vasica</i>	Basanga	Acanthaceae	
3.	<i>Andrographis paniculata</i>	Bhuln-	Acanthaceae	
4.	<i>Annona squamosa</i>	Ata/Seetaphal	Annonaceae	Cultivated species
5.	<i>Aristolochia bracteata</i>	Hansalata	Aristolochiaceae	
6.	<i>Boerhaavia diffusa</i>	Punarnava/Pugincannav	Nyctaginaceae	
7.	<i>Calotropis gigantea</i>	Arakha (arka)	Asclepiadaceae	
8.	<i>Cassia toria</i>	Khakada (Kakali)	Flacourtiaceae	
9.	<i>Cassia toria</i>	Dholachakunda	Caesalpinaceae	
10.	<i>Clerodendron infortunatum</i>	Bhant	Verbenaceae	
11.	<i>Colocasia esculenta</i>	Saru	Araceae	
12.	<i>Curcuma amada</i>	Amada/Ama-haldi	Zingiberaceae	
13.	<i>Curcuma aromatica</i>	Palua/Bana-haldi	Zingiberaceae	
14.	<i>Curcuma angustifolia</i>	Palma/Palagunda	Zingiberaceae	
15.	<i>Datura stramonium</i>	Datura (Duddura)	Solanaceae	
16.	<i>Eupatorium odoratum</i>	Pokasunga	Asteraceae	Invasive Species
17.	<i>Euphorbia hirta</i>	Hariharika	Euphorbiaceae	
18.	<i>Euphorbia tirucalli</i>	Khadisiju	Euphorbiaceae	
19.	<i>Flemingia strobilifera</i>	Ranikathi	Fabaceae	
20.	<i>Gardenia gummiifera</i>	Khuradu	Rubiaceae	
21.	<i>Grewia hirsuta</i>	Sunaragoda	Tiliaceae	
22.	<i>Helicteres isora</i>	Antia (Murmura)	Sterculiaceae	
23.	<i>Hemidesmus indicus</i>	Anata-mula	Asclepiadaceae	
24.	<i>Holarrhena antidysenterica</i>	Kurei/Kurmi	Apocynaceae	
25.	<i>Hydrocotyle asiatica</i>	Brahmi/Thalkuni	Apiaceae	
26.	<i>Hyptis suaveolens</i>	Ganga-tulasi	Lamiaceae	
27.	<i>Indigofera pulchella</i>	Giri	Fabaceae	
28.	<i>Ipomoea carnea</i>	Besharam/Omor	Convolvulaceae	
29.	<i>Ixora parviflora</i>	Kilakeruan	Rubiaceae	
30.	<i>Jatropha curcas</i>	Balgaba	Euphorbiaceae	
31.	<i>Jatropha gossypifolia</i>	Nilabalgaba	Euphorbiaceae	
32.	<i>Justicia adhatoda</i>	Basanga	Acanthaceae	
33.	<i>Lantana camara</i>	Nagauri (Nagaboiri)	Verbenaceae	
34.	<i>Lawsonia inermis</i>	Mehandli (Manjuati)	Lythraceae	
35.	<i>Leonotis nepetifolia</i>	Kantasidha	Mamiaceae	
36.	<i>Mimosa pudica</i>	Lajuli	Mimosaceae	
37.	<i>Murraya koenigii</i>	Bhursunga (Mirsingapat)	Rutaceae	
38.	<i>Murraya exotica</i>	Kamiric	Rutaceae	
39.	<i>Nerium indicum</i>	Karibira	Apocynaceae	Cultivated species
40.	<i>Nyctanthes arbor-tristis</i>	Gangasuli (gotikhadika)	Oleaceae	Cultivated species



41.	<i>Oclumbasilicum</i>	Tulasi(Dhala)	Lamiaceae	
42.	<i>Oclumgratissimum</i>	Bana-tulasi	Lamiaceae	
43.	<i>Oclumsanctum</i>	Tulasi(Kala)	Lamiaceae	
44.	<i>Partheniumhysterophorus</i>	Parthenium	Asteraceae	Invasive species
45.	<i>Phoenixacaulis</i>	Ban-Khajuri	Arecaceae	
46.	<i>Pithecellobiumdulce</i>	Simakoina	Mimosaceae	
47.	<i>Plumbagorosea/Plindica</i>	Raktachitaparu(Lal-chit)	Plumbaginaceae	
48.	<i>Plumbagozeylanica</i>	Sitaparu/Dhola-chitapa	Plumbaginaceae	
49.	<i>Premnaherbacea</i>	Gudamari	Verbenaceae	
50.	<i>Randladumetorum</i>	Mohana(Pottua)	Rubiaceae	
51.	<i>Rauvolfiaserpentina</i>	Patalgaruda	Apocynaceae	
52.	<i>Ricinuscommunis</i>	Jada	Euphorbiaceae	
53.	<i>Sidacordifolia</i>	Bisripi/Bajramuli	Malvaceae	
54.	<i>Solanumxanthocarpum</i>	BhejiBaigana(Ankaranti)	Solanaceae	
55.	<i>Tephrosiaspp.</i>	-	Fabaceae	
56.	<i>Tribulusterrestris</i>	Gokhara	Averrhoaceae	
57.	<i>Tridaxprocumbens</i>	Bisalya-	Asteraceae	
58.	<i>Vandatesellata</i>	Ilkum	Orchidaceae	Epiphyticorchid
59.	<i>Vitexnegundo</i>	Nirgundi(Begunia)	Verbenaceae	
60.	<i>Wendlandlatinctoria</i>	Tilai	Rubiaceae	
61.	<i>Withaniasomnifera</i>	Ashwagandha	Solanaceae	
62.	<i>Woodfordiafruticosa</i>	Dhatiki	Lythraceae	
63.	<i>Ziziphus mauritiana</i>	Barkoli	Rhamnaceae	
64.	<i>Zizyphusoenoplea</i>	Kanteikoli	Rhamnaceae	
Climbers				
1.	<i>Abrusprecatorius</i>	Gunja(Kalncha)	Fabaceae	
2.	<i>Acaciaaluata</i>	Dantari(Nali-Kantia)	Mimosaceae	
3.	<i>Asparagusracemosus</i>	Satawar	Liliaceae	
4.	<i>Bauhinia vahlii</i>	Siali	Caesalpinjiaceae	
5.	<i>Buteasuperba</i>	Latapalasa	Fabaceae	
6.	<i>Cassytha filiformis</i>	Nirmuli	Lauraceae	
7.	<i>Combretumdecandrum</i>	Atundi	Combretaceae	
8.	<i>Cryptolepisbuchananii</i>	Dudhi-mal	Periplocaceae	
9.	<i>Dioscoreadeltoidea</i>	DesiAlu	Dioscoreaceae	
10.	<i>Dioscoreahispida</i>	KaruKando/Kulihakanda	Dioscoreaceae	
11.	<i>Entadas scandens/E.pursali</i>	Gilo	Mimosaceae	
12.	<i>Hiptagemadablota</i>	Madhumalati	Malpighiaceae	
13.	<i>Symphoremopolandrum</i>	Mahasindhu	Verbenaceae	
14.	<i>Loranthusscurrula</i>	Madang	Loranthaceae	
15.	<i>Millettiaauriculata</i>	Arkawla	Fabaceae	
16.	<i>Mucunnamonosperma</i>	Bidanka	Papilionaceae	
17.	<i>Smilax macrophylla</i>	Muturi	Smilacaceae	
18.	<i>Urticadioca</i>	Bichhuati	Euphorbiaceae	
19.	<i>Ventilagodenticulata</i>	Pitchuli/Kantamall	Rhamnaceae	
20.	<i>Ventilagomadraspata</i>	Petchurimal(Torida)	Rhamnaceae	
Grasses				
1.	<i>Aristidasetacea</i>	Ghodalanji	Poaceae	
2.	<i>Arundinellasetosa</i>	Jharu	Poaceae	
3.	<i>Bambusaarundinacea</i>	DabaBauns(Kanta)	Poaceae	
4.	<i>Bambusanutans</i>	BadlaBauns	Poaceae	
5.	<i>Bambusatulda</i>	TaledaBauns	Poaceae	
6.	<i>Bambusavulgaris</i>	Sundarkani	Poaceae	
7.	<i>Bothriochloapartma</i>	Basang	Poaceae	
8.	<i>Bothriochloabladii</i>	Gondabena	Poaceae	
9.	<i>Chrysopogongryllus</i>	Guguchia	Poaceae	
10.	<i>Cymbopogonflexuosus</i>	Dhanwaritari	Poaceae	
11.	<i>Cymbopogonmatinii</i>	Rosagrass	Poaceae	
12.	<i>Cynodondactylon</i>	Duba(Dhubo)	Poaceae	
13.	<i>Dendricalamusstrictus</i>	Bauns(Saliabamboo)	Poaceae	
14.	<i>Eragrostiscoaretata</i>	Kojhipa(Kuti)	Poaceae	
15.	<i>Eragrostisunioloides</i>	PhuriPhuri	Poaceae	



16.	<i>Eulalopsisbinata</i>	Sabai (Panasi)	Poaceae
17.	<i>Heteropogoncontortus</i>	Sinkulla	Poaceae
18.	<i>Ichaemumrugosum</i>	Tuli	Poaceae
19.	<i>Imperataarundinaceae</i>	Chhana	Poaceae
20.	<i>Imperatacylindrica</i>	Kharagrass	Poaceae
21.	<i>Oryzarufipogon</i>	Balunga	Poaceae
22.	<i>Phragmiteskarka</i>	Noto	Poaceae
23.	<i>Saccharumspontaneum</i>	Kasatandi (Chadela)	Poaceae
24.	<i>Thysanolaenamaxima</i>	Phulbadhun (Phuljhadu)	Poaceae
25.	<i>Vetiveriazizaniodes</i>	Khus-Khus (Bena)	Poaceae

None of the above plant species are listed in Schedule III of the Wildlife (Protection) Amendment Bill, 2022 passed by the Lok Sabha on 02-08-2022.

2.5.3: Fauna in the Core Zone:

The animals found in the Mining Lease are given as under:

Table. 2.7: Fauna in the Core Zone:

Sl. No.	Common Name/ Local Name	Scientific Name	Schedule Of Wildlife (Protection) Amendment Bill, 2022 in which listed
Mammals			
1.	Common Mongoose/ Hatia Neula	<i>Herpestes edwardsii</i>	I
2.	Hare/Thekua	<i>Lepus nigricollis</i>	II
3.	Wildcat/Banbiradi	<i>Felis chaus</i>	I
4.	Jackal/Bilua	<i>Canis aureus</i>	I
5.	Five-Striped Palm Squirrel/ Gundichimusa	<i>Funambulus pennanti</i>	-
6.	Wild Boar/Barha	<i>Sus scrofa</i>	II
7.	Common Langur/Hanuman	<i>Semnopithecus entellus</i>	II
8.	Rhesus Macaque/Pati	<i>Macaca mulatta</i>	-
Reptiles			
1.	Russel's Viper/Dhandaboda	<i>Daboia russelii</i>	I
2.	Cobra/Gokhra	<i>Naja naja</i>	I
3.	Yellow Rat Snake/Dharmena	<i>Ptyas mucosus</i>	I
4.	Common Skink	<i>Mabuyacarinata</i>	-
5.	Garden Lizard	<i>Calotes versicolor</i>	-
Birds			
1.	Pariah Kite/Chilla	<i>Milvus migrans</i>	II
2.	Common Crow/Patikau	<i>Corvus splendens</i>	-
3.	Jungle Crow/Damarakau	<i>C. marcorhynchus</i>	II
4.	House Sparrow/Gharchatia	<i>Passer domesticus</i>	II
5.	Red Jungle Fowl/Banakukuda	<i>Gallus gallus</i>	II
6.	Pied Mynah	<i>Sturnus contra</i>	-
7.	Common Mynah/Bani	<i>Acridothera tristis</i>	II
8.	Spotted Munia	<i>Lonchura punctulata</i>	II
9.	Drongo/Kajalapati	<i>Dicrurus adsimilis</i>	-
10.	Black Headed Oriole/Haladibanta	<i>Oriolus xanthornus</i>	II
11.	Spotted Dove/Kapota	<i>Streptopelia chinensis</i>	II
12.	Ring-necked Dove/Kapota	<i>Streptopelia decaocto</i>	II
13.	Koel/Koili	<i>Eudynamis scolopacea</i>	II
14.	Red Vent Bulbul/Bulbul	<i>Pycnonotus cafer</i>	II
15.	Red Whiskered Bulbul/Phadibu	<i>Pycnonotus jocosus</i>	II



Sl. No.	Common Name/Local Name	Scientific Name	Schedule of Wildlife (Protection) Amendment Bill, 2022 in Which Listed
16.	Large Indian Parakeet/Sua	<i>Psittacula eupatria</i>	II
17.	Blossom Headed Parakeet	<i>Psittacula cyanocephala</i>	II
18.	Rose Ringed Parakeet	<i>Psittacula krameri</i>	II
19.	Pied Crested Cuckoo/Chatak	<i>Clamator jacobinus</i>	II
20.	Blue Rock Pigeon/Deulipara	<i>Columba livia</i>	-
21.	Common Babbler/Kunda	<i>Argyropygia</i>	II
22.	House Swift/Chataka	<i>Apus affinis</i>	II
23.	Crow Pheasant/Kumbhatua	<i>Centropus sinensis</i>	II
24.	Magpie Robin	<i>Copsychus saularis</i>	II
25.	Indian roller/Bhadbadalia	<i>Coracias benghalensis</i>	II
26.	Golden-backed woodpecker/Kathkum	<i>Dinopium benghalense</i>	II
27.	Purple Sunbird	<i>Nectarinia asiatica</i>	II
28.	Tailor-bird/Phutki	<i>Orthotomus sutorius</i>	II
29.	Spotted Owllet/Pecha	<i>Athene brama</i>	II
30.	Partridge/Gunduri	<i>Francolinus pondicerianus</i>	II
31.	Woodpecker/Kathahana	<i>Picoides nanus</i>	II

Due to mining and allied activities the habitat has been degraded and fragmented. Consequently diversity of animals in the core zone is low.

2.5.4: Fauna in the Buffer Zone: The animal found in the study area is given as under:

Table. 2.7: Fauna in the Buffer Zone:

Sl. No.	Common Name/Local Name	Scientific Name	Schedule of Wildlife (Protection) Amendment Bill, 2022 in Which Listed
Mammals			
1.	Common Mongoose/Hatia Neula	<i>Herpestes edwardsii</i>	I
2.	Indian Fox/Kokisiali	<i>Vulpes bengalensis</i>	I
3.	Jackal/Bilua	<i>Canis aureus</i>	I
4.	Common house Rat/Musa	<i>Rattus rattus</i>	-
5.	Wild Boar/Barha	<i>Sus scrofa</i>	II
6.	Common Langur/Hanuman	<i>Semnopithecus entellus</i>	II
7.	Indian Elephant/Hati	<i>Elephas maximus</i>	I
8.	Hyaena/Heta Bagha	<i>Hyaena hyaena</i>	I
9.	Grey Muskshrew/Chhuchhundra	<i>Suncus murinus</i>	-
10.	Wildcat/Banbradi	<i>Felis chaus</i>	I
11.	Barking deer/Kutra	<i>Muntiacus muntjak</i>	-
12.	Rhesus Macaque/Pati	<i>Macaca mulatta</i>	-
13.	Hare/Thekua	<i>Lepus nigricollis</i>	II
14.	Indian Porcupine/Jhinka	<i>Hystrix indica</i>	I
15.	Sloth-bear/Bhalu	<i>Melursus ursinus</i>	I
16.	Small Indian Civet/Saliapatani	<i>Viverricula indica</i>	I
17.	Short nosed fruit-bat/Badudi	<i>Cynopterus sphinx</i>	-
18.	Indian Flying Fox	<i>Pteropus giganteus</i>	II
19.	Indian Pipistrelle	<i>Pipistrellus cromandra</i>	-
20.	Five-Striped Palm Squirrel/Gundichimus	<i>Funambulus pennanti</i>	-
Reptiles			
1.	Common Krait/Kaudiachiti	<i>Bungarus caeruleus</i>	II
2.	Cobra/Gokhra	<i>Naja naja</i>	I



3.	YellowRatSnake/Dhamena	<i>Ptyas mucosus</i>	I
4.	TrinletSnake	<i>Coelognathushelena</i>	II
5.	CheckeredKeelback/Dhanda	<i>Xenochrophisplascator</i>	I
6.	Russel'sViper/Dhandaboda	<i>Daboia russelii</i>	I
7.	Greenvinesnake/Laudankia	<i>Dryophisnasutus</i>	II
8.	Treesnake/Kandanali	<i>Ahaetula spp.</i>	II
9.	BlindSnake/TeliSapa	<i>Typhlopsbramfnus</i>	II
10.	MonitorLizard/Godhi	<i>Varanus bengalensis</i>	I
11.	CommonSkink	<i>Mabuyacarinata</i>	-
12.	GardenLizard	<i>Calotes versicolor</i>	-
Birds			
1.	PariahKite/Chhila	<i>Milvus migrans</i>	II
2.	CommonCrow/Patikau	<i>Corvus splendens</i>	-
3.	JungleCrow/Damarakau	<i>C. marorhynchus</i>	II
4.	HouseSparrow/Gharchatia	<i>Passer domesticus</i>	II
5.	RedJungleFowl/Banakukuda	<i>Gallus gallus</i>	II
6.	OpenBilledStork/Gandalla	<i>Anastomus oscitans</i>	II
7.	Koel/Koili	<i>Eudynamis scolopacea</i>	II
8.	CattleEgret/Bagga	<i>Bubulcus ibis</i>	II
9.	Drongo/Kajalapati	<i>Dicrurus adsimilis</i>	-
10.	PondHeron	<i>Ardeola grayii</i>	II
11.	SpottedDove/Kapota	<i>Streptopelia chinensis</i>	II
12.	Ring-neckedDove/Kapota	<i>Streptopelia decaocto</i>	II
13.	WhiteBreastedKingfisher	<i>Halcyon smyrnensis</i>	II
14.	RedVentBulbul/Bulbul	<i>Pycnonotus cafer</i>	II
15.	RedWhiskeredBulbul/ Phadibulbul	<i>Pycnonotus jocosus</i>	II
16.	PiedMynah	<i>Sturnus contra</i>	-
17.	CommonMynah/Bani	<i>Acridothera tristis</i>	II
18.	RoseRingedParakeet	<i>Psittacula krameri</i>	II
19.	LargeIndianParakeet/Sua	<i>Psittacula eupatria</i>	II
20.	BlossomHeadedParakeet	<i>Psittacula cyanocephala</i>	II
21.	CommonBabbler/Kunda	<i>Argycaudata</i>	II
22.	HouseSwift/Chataka	<i>Apus affinis</i>	II
23.	CrowPheasant/Kumbhatua	<i>Centropus sinensis</i>	II
24.	MagpieRobin	<i>Copsychus saularis</i>	-
25.	Indianroller/Bhadbhadalla	<i>Coracias benghalensis</i>	II
26.	BlueRockPegion/Deulipara	<i>Columba livia</i>	-
27.	CrestedSerpentEagle	<i>Spilornis cheela</i>	I
28.	BlackHeadedOriole/ Haladibasanta	<i>Oriolus xanthornus</i>	II
29.	Golden- backedwoodpecker/Kathkumpa	<i>Dinopium benghalense</i>	II
30.	Woodpecker/Kathkumpa/ Kathahana	<i>Yungipicus nanus</i>	II
31.	ImperialGreenPegion/Para	<i>Ducula aenea</i>	II
32.	Weaver-bird/Baya	<i>Ploceus philippinus</i>	II
33.	PurpleSunbird	<i>Nectarinia asiatica</i>	II
34.	Tailor-bird/Phutki	<i>Orthotomus sutorius</i>	II
35.	SpottedOwlet/Pecha	<i>Athene brama</i>	II
36.	IndianGreatHornedOwl/Pecha	<i>Bubo bubo</i>	I
37.	CommonHawkCuckoo/Koili	<i>Hierococcyx varius</i>	II
38.	IndianCuckoo/Koili	<i>Cuculus micropterus</i>	II
39.	PiedCrestedCuckoo/Chatak	<i>Clamator jacobinus</i>	II
40.	Quail/Teetri	<i>Perdix asiatica</i>	II
41.	GrayPartridge/Teetri/Gunduri	<i>Francolinus pondicerianus</i>	II
42.	SpottedMunia	<i>Lonchura punctulata</i>	II

There are extensive forests in the study area. However due to presence of several



open cast mines in the area, disturbances have scared off many species of animals especially large ones. The habitat too has been fragmented. Large mammals listed above are found in the forests only.

It has been reported that while elephants do not come to the mining areas, they are seasonal visitors to the area. Findings of the 2017 Elephant Census Study in Keonjhar Forest Division is given as under:

Table:2.8: Elephant census in the Study Area

Category	Numbers
Bulls	9
Cows	24
Unknown sex	0
Calves	7
Total for May 2017	40
Total for June 2012	73
Total for May 2007	33
Total for May 2002	112
Source: Wildlife Odisha – 2020; Pub. Wildlife Organisation, Forest & Environment Department, Govt. Of Odisha, Oct., 2020	

2.5.5 Status of Rare, Endangered & Threatened Species:

There is no Floral rare, Endangered & Threatened Species (RET) within Zone of Impact as per Botanical Survey of India. However on field observations many floral species are considered to be rare in the locality and its preservation/ conservation and propagation is of paramount importance. These are Bija, Pahadi Sisoo, Bandhan, Kuruma, Amla etc.

2.5.6 Present Management System:

The Working Plan of Keonjhar Division for 2022-23 to 2031-32 by Sri Susil Kumar Nayak OFS-A (SB) has been approved by IRO, MoEF&CC, Bhubaneswar vide Letter No 8(31) 36/ 2016-FCE dated 15.07.2022.

The forests under Keonjhar Division coming within ZOI have been proposed to be managed under Improvement Working Circle. There is a Wildlife (Overlapping) Working Circle for management of wildlife in the division.

The Working Plan of Bonai Division is by Sri Sanath Kumar N, IFS for the period 2021-22 to 2030-31 and has been approved by IRO, MoEF&CC, Bhubaneswar. The forests of Bonai Division coming within ZOI are being managed under Selection-Cum-Improvement WC, Protection WC and Plantation WC. There is a Wildlife (Overlapping) Working Circle for management of wildlife in the division.



The special objectives of management are in line of general objectives of Working Plan. All objectives under Elephant Reserve are also objectives of this working Circle. Besides the above other objectives are as follows.

- To Conserve, Protect and improve existing wild life and their habitat.
- To enhance bio-diversity and Wild Life population in the region.
- To involve people in management of Wildlife & associate them in preventing crime against Wild animals.
- To build up scientific knowledge on wildlife resources of the region.
- To train personnel at various levels for conservation and management of wildlife.
- Carry out research relevant to management including the development of techniques appropriate to Indian conditions especially to this locality.
- To educate people about wildlife and need for their conservation.
- To prevent sporadic and strategic crime against wild animals/ birds.

To improve the situation, the Working Plan Officer has outlined the following strategy. The general management practices involve:

- a) Improvement of existing habitat and Development of new habitat for any species found in the locality.
- b) Preservation of existing wetlands.
- c) Adequate Fire Protection Measures.
- d) Providing a conducive and safe breeding zone for existing animals.
- e) Protect nesting of migratory Birds in Mahanadi River and Hirakud Reservoir.
- f) Provide water to animals during summer.
- g) Create & maintain grass lands.
- h) Remain vigilant against poaching of animals by live electric wire and loops.
- i) Take legal action against poachers.
- j) Public education / awareness camps on wild animals.

2.5.7: Methods of Treatment:

a. Improvement of Habitats:

- Retention of Down wood, Snags, dead trees in forests,
- Maintenance of Creeks,
- Maintenance of Wet lands,
- Creation & Maintenance of Grass Land,
- Providing water to animals Improvement of Elephant Corridors,
- Providing Protection,
- Improvement of Elephant Corridors,
- Detail study of Animal behaviour & scientific Documentation,



- Creation of Public awareness & public participation in management,
- Reduction of Human- Wildlife Conflict.

The Working Plan Officer for reduction of Human-Wildlife Conflict (HWC), suggested the following measures.

The Human-Wildlife Conflict is in a rising trend in Champua, Barbil and BJP range due to increased Mining activities. Disturbances in Karo-Karampada Elephant Corridor are due to mining by SAIL, which has "Made the corridor disturbed". The movement of elephant in this region has been influenced by River Baltarani, Rail Corridors, Road network and rapid Mining & Industrialization. In order to reduce Man- Animal Conflict and crop depredation the following measures are suggested

- Change in cropping pattern,
- Development of elephant corridors at least of 500 m identifying the land in field.
- Development of water sources & availability of clean water to animals.
- Motivating People "not to disturb" elephants / other animals.
- In case of Crop raiding, not to drive them out which results in more damage and human causality.
- Immediate compensation to victims of crop raiding/Kill & injury.

a) Threat to wild animals & Suggested Mechanism:

Some of Important threats enumerated by WPO, Keonjhar are:

- a) Annual Fire and loss of Ground Flora.
- b) Fragmentation of Habitat by rampant mining in Barbil, Champua and BJP Range.
- c) Rapid industrialization due to mining and ancillary units.
- d) Heavy biotic interference and intrusion by domestic animals (Cattle/Goat/ Sheep)
- e) Transmission of contagious diseases from domestic cattle to Wild animals.
- f) Poaching by putting nets/ loops and live electric wires.
- g) Hunting of birds.
- h) Public irritation against crop damage.

In order to handle the situation it is proposed to

- Prevent forest fire with the help of VSS/ Public.
- Equip the forest staff with modern fire fighting tools.
- Have intelligence network deep inside the forest especially close to Sanctuary.
- Make public aware about ill effect of loss of bio. diversity and loss of threatened flora and fauna.
- Enforce provisions of the wildlife (Protection) Act, 1972.



- Take help of Wildlife Crime Investigation burro In Inter District Organized Crimes.

2.6 Wildlife Habitat & Movement Pattern of Mega fauna:

2.6.1. Wildlife Scenario:

The project is not forming a part of National Park, Wildlife Sanctuary, neither any Protected Area nor it comes within any Eco Sensitive Zone of National Park, Wildlife Sanctuary, any protected area. The nearest Sanctuary is Similipal Sanctuary which is about 82.224 km from the project. The Karo- Karampada Elephant corridor is about 17.51 km from the project. The distance of Wildlife Sanctuary, National Park, Elephant corridors, Elephant Reserve and Ramsar site is depicted in **Plate No-III**. The elephants are mostly migratory and moving to and from Jharkhand (Singhbhum Elephant Reserve).

2.6.2 Animal Census:

a. Elephant:

The elephant census has been conducted in the division during 2012, 2015 and 2017. The census data is furnished below.

Table: 2.9: Information on Wildlife (Elephant Census)

Information on Wildlife (Elephant Census)						
Year	Male	Female	Unknown	Young	Total	Male:Female
2012	23	37	0	13	73	1:1.60
2015	12	24	1	10	47	1:2
2017	9	24	0	7	40	1:2.67

The male female ratio is around 1: 1.6 to 2.5 which are considered as good. From the above data it is observed that, the population is in a declining stage where as in the state, the population is in increasing trend. It seems that, the elephants are migrating outside due to adverse impact of mining & developments. The male female ratio is in increasing trend, which indicates lesser number of tuskers.

The elephant census is usually carried out in month of April -May of the year of census. It may not reflect the actual problem being faced throughout the year. An attempt has been made to reflect the month wise elephant population recorded during 2020, 2021 and 2022 to give a reflection of elephant problems being faced in the Division.



The day to day elephant movement has been recorded by the field staff and displayed in the GIS domain of the division. The monthly variation as recorded during 2020, 2021 and 2022 Indicates a different picture in the division. The data recorded in the GIS Cell of the division is as furnished below.

Table. 2.10: Seasonal Variation in Elephant population (Keonjhar Division)

Seasonal Variation in Elephant population (Keonjhar Division)													
Year	Month												Peak
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Presence
2020	123	96	68	73	119	119	131	110	148	139	143	124	148
2021	95	89	69	73	85	129	85	118	146	168	158	159	168
2022	146	133	117	129	134	133	133	115	156	183	150	191	191

- The peak presence of elephant is from September to December of the year.
- The average presence from September to December is around 155.
- Paddy crops when starts bearing panicles (Dhana Kenda) till end of harvesting witnesses peak presence of elephant.
- Movement in January / February though reduced still in medium range due to availability of Paddy in Storage Yard (called Dhana Khala).

No. of Elephants presence recorded (Monthly Average)											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
121	106	85	92	113	127	116	114	150	163	150	158

Month	March-April	May-Aug	Sep-Dec	Jan-Feb
No. of Elephant	89	118	155	114
(Average)	Lean Period	Crop sowing period	Crop in advance & harvesting stage	Crop in Stock yard (Khala)

b. Tiger Estimation:

Tiger / Leopard census was conducted during 2016. It is found that there is no tiger / leopard in Keonjhar Division. Presence of Leopard has been reported many times from Sidhamatha RF, Thakuranl RF by staffs / local enquiry.

c. Winter Birds Census:

The Census of Winter birds are regularly being conducted in 2nd week of January every year. It is observed that winter birds are congregating on MIPs of the Division. Keonjhar division is a plateau. Water body existence is limited. Due to Waterfalls, Dams/Mined out areas some water body has been created in Keonjhar.



2.6.3 Wildlife Corridors:

There is no wildlife corridor within the buffer zone of Jiling Langalota Iron Ore Mines of OMC Ltd.

2.6.4. HWC Details (Human- Wildlife Conflict):

2.6.4.1: Barbil Range:

i. Crop Damage

Year	No of villages affected	No of cases	Area involved in Ac	Compassionate grant Sanctioned & paid (in Lakh Rs)
2018-19	0	0	0	0
2019-20	42	79	21.52	2.153
2020-21		134	30.582	3.087
2021-22		19	6.21	0.62

ii. House Damage

Year	House Damage		Total No of Cases	Amount sanctioned & paid on lakh Rs.
	Partly	Fully		
2018-19	0	0	0	0
2019-20	0	7	7	0.70
2020-21	11	1	12	0.32
2021-22	1	0	1	0.02

iii. Human Kill & Injury

Year	No of Human Kill	No of Human injury	Compassionate amount paid in lakh Rs
2018-19	1	0	4.00
2019-20	0	0	0.00
2020-21	1	0	4.00
2021-22	1	0	4.00

iv. Elephant and other animal kill/death

The elephant death as recorded in the records of the division reveals that from 2017-18 till 2022-23 (Jan-August, 31st) the total death reported is 31 numbers as detailed below:

Year	Elephant Death					Remark
	Male	Female	Calf	Unknown	Total	
2017-18	0	2	0	0	2	No death in Barbil Range
2018-19	1	1	1	0	3	
2019-20	0	4	2	0	6	
2020-21	2	2	2	1	7	



2021-22	0	5	2	0	7	
2022-23	2	6	2	0	10	
Total	5	20	9	1	35	

The cause of death has been analyzed and found as follows:

Year	Total	Cause of Death						
		Disease	Natural	Train accident	Electrocution	Road accident	Poaching	Others
2017-18	2	1	1	0	0	0	0	0
2018-19	3	1	0	1	0	0	0	1
2019-20	6	1	2	0	0	3	0	0
2020-21	7	4	0	0	2	0	0	1
2021-22	7	6	0	0	1	0	0	0
2022-23 (12/22)	10	2	1	3	2	0	2	0
Total	35	15	4	4	5	3	2	2

(v) Abstract of compassionate grants paid:

Year	Compassionate grants paid (in lakh Rs)			
	Crop damage	House damage	Human kill & Injury	Total
2018-19	0	0	4.00	4.000
2019-20	2.153	0.70	0.00	2.853
2020-21	3.087	0.32	4.00	7.407
2021-22	0.62	0.02	4.00	4.640
Total	5.860	1.04	12.00	18.900

2.6.4.2: Campua Range:

Details of Animal Depredation Last 5 Years in Champua Forest Range

Crop Damage							
Year	Name of wild animal in volved	No. of cases	Damaged Area in acres.	Amount sanction	Amount paid	Balance for payment	Remarks
2018-19	Elephant	1244	295.764	2957640	2957640	-	-
2019-20	Elephant	850	175.174	1751740	1751740	-	-
2020-21	Elephant	745	186.212	1862120	1862120	-	-
2021-22	Elephant	1454	456.7982	4567982	4567982	-	-
2022-23	Elephant	368	13.984	833940	833940	-	-
2023-24	Elephant	649	157.631	2846270	2846270		
Total							



House Damage								
Year	Name of wild animal Involved	No. of House Damage			Amount sanction	Amount paid	Balance for payment	Remarks
		Partly	Fully	Total				
2018-19	Elephant	55	0	55	382000	382000	-	-
2019-20	Elephant	76	0	76	464000	464000	-	-
2020-21	Elephant	41	0	41	258000	258000	-	-
2021-22	Elephant	37	0	37	186000	186000	-	-
2022-23	Elephant	23	0	23	146000	146000	-	-
2023-24	Elephant	48	10	58	680000	680000		
Total								

Human Kill						
Year	Name of wild animal Involved	No. of Death cases	Amount sanction	Amount paid	Balance for payment	Remarks
2018-19	Elephant	2	600000	600000		
2019-20	Elephant	1	400000	400000		
2020-21	Elephant	2	800000	800000		
2021-22	Elephant	5	2000000	2000000		
2022-23	Elephant	2	800000	800000		
2023-24	Elephant	4	1600000	1600000		
Total						

Human Injury						
Year	Name of wild Animal Involved	No. of Cases	Amount sanction	Amount paid	Balance for payment	Remarks
2018-19	-	6	125000	125000		
2019-20	Wild Elephant	2	10000	10000		
2020-21	Wild Elephant	2	105000	105000		
2021-22	Wild Elephant	4	20000	20000		
2022-23	Wild Elephant	4	20000	20000		
2023-24	Elephant	3	15000	15000		
Total						

Cattle Kill						
Year	Name of Cattle Killed	No. of Cases	Amount sanction	Amount paid	Balance for payment	Remarks
2018-19						
2019-20						



2020-21	NIL
2021-22	
2022-23	
2023-24	
Total	

2.6.5 Public view on Man Animal conflict:

Human-Wild Animal Conflict (HWC) is in a rising trend in this locality. Due to industrialization / Mining etc. the Mega animal movement has been affected. Recent death of elephant due to Electrocutation in Balkarani RF and Train accident in Joda indicates a strained relation between Human & Animal.

The animal lovers are very much concerned about hostile attitude of public, depletion of wild animals in the region and remote possibility of striking a balance between Habitats-Developmental activities.

2.7 Other projects within ZOI & their Impact Zone:

Within the Zone of impact many mining projects are leased out in past and also being given by auctioning process. The list of existing (Operating / Non Operating) mines has been provided at Para 2.2.1 of this chapter.

2.7.1 Wildlife Conservation plan approved & in implementation stage:

The following Site Specific Wildlife Conservation Plans have been approved recently and in implementation stage.

Sl. No.	Name of the project for which SWLCP approved	Cost of the Project for Keonjhar Division. (In lakh Rs)	Approval order & date
1	Construction of Railway line doubling Project from Joroli to Porjanpur over 28.85 Km of Banspani- Daitari- Tamka- Jakhpura BG over 170.903 km by East Cost railway.	871.86	7075 dated 28.07.2021 Revised vide 175 dated 05.01.2022
2	Expansion of iron ore beneficiation plant, Tailing Dam and pipelines by ArcelorMittal Nippon steel India Ltd. (formerly known as Essar Steel Ltd.).	251.52	8077 dated 21.08.2021
3	32KV line from Jarul Sub Station to Basantapur Pellet Plant of M/s Pro	318.12	8381 dated 01.09.2021



	Minerals Pvt. Ltd. (PMPL).		
4	Construction of 132 KV transmission line from 132/33 KV OPTCL Grid Station at Barbil, Keonjhar Dist to Kamando Steel Plant.	208.38	
5	Baltarani Iron Ore Mines of Dr. Sarojini Pradhan	227.28	770 dated 27.01.2021
6	Dubuna-Sakradihi Iron & Manganese Ore Mines of OMC Ltd	600.867	13876 dated 20.12.2021
7	Nuagaon Iron Ore Block of M/s JSW Steel Ltd	590.870	1834 dated 25.02.2022
8	Jajanga Iron & Mn Block of M/s JSW Steel Ltd.	471.960	1842 dated 25.02.2022
9	San-Indupur Iron & Bauxite mines of M/s Rungta Sohs (P) Limited	192.66	177 dtd. 21.01.2022
10	Expansion of the existing unit of M/s MSP Sponge Iron Limited village Haladiaguna, Keonjhar	105.372	7485 dtd. 10.08.2022
11	Gual Iron Ore Mines of M/s OMC Ltd.	358.258	8781 dtd. 10.08.2023
Total		3838.889	

2.8 Interventions implemented by Forest department:

Most of interventions revolve around Habitat Improvement, Protection & Surveillance. Public awareness through various modes, motivation of villagers / VSS Members/ School children is the key guiding factors for interventions. For reduced Crop depredation deployment of staffs / Watch Towers and taking help of modern tools like drone camera, Satellite imagery are being implemented. Recently Hanging Solar Fencing has been installed at Joda along the both sides of Railway track to prevent elephant movement across the railway line. Use of Drone based Thermal camera for tracking of wild life (mega animals) found to be useful and also in use. Schemes like Gaja Sathi, Jana Surakshys Gaja Rakshya, Mo Jungal - Mo parivesh etc are being implemented. Some projects are Community Participatory in nature to augment relation with public in Forest & wildlife Management and reducing Human- Animal Conflict.



CHAPTER-III

PROBABLE IMPACTS OF THE PROJECT ON FLORA AND FAUNA

A. PROJECT AREA

The Mining lease area spreads over an area of 456.100 ha including 7.5 mtr strip of safety zone area all along the inner side of the mining lease boundary having trees of various girth classes with crown density around 40%. Those area of above forest block form the habitat of available wildlife such as Barking Deer, Wild Boar, Sloth bear, Ratel, Jungle Cat, Python etc. and serve as a grazing ground for them and for the wild animals of adjoining areas. Wild elephants at times also visit the lease area due to its continuity to other forest blocks, RF, revenue forest & DLC forest land. In view of the above, the mining inside the above area shall impose the following threats to wild Fauna as a whole as narrated below.

(I) Reduction In Biodiversity:

The biodiversity is likely to be affected as a result of further reduction in forest areas having growing stocks with canopy density varying from 0.1 to 0.4. This act of felling of trees will not only deprive off large nos. of arboreal mammals, birds, reptiles, insects from food & shelter but also ground dwelling animals such as Barking deer, Sloth bear, Wild boar etc. shall be scared off to other localities where they may face competition for food & water. The tree growth, shrubs and ground cover has already been lost, partly to accommodate mining pits, OB dumps, storage yard etc. This has adversely affected the species richness, cover and food value of wild animals. As a result of further mining and ancillary activities there may be increase in work force that will put more of anthropogenic pressure on the existing flora.

ii) Forest fire

Forest fire in summer months in a tropical forest is always a threat to wildlife, even without any mining operation in any area. But this is likely to create further problem as the forest area shall reduce and anthropogenic pressure shall increase in the remaining forest. The forest fire is likely to burn the ground flora, desiccate the soil, kill the ground dwelling animals, birds and their young ones, and char their nests and eggs. It may render the hill streams dry and destroy the sub-terranean flora and fauna besides causing diseases in the standing trees. Forest fire is created by N.T.F.P. collectors, who do not extinguish fire created for clearing the ground by negligence and by leaving lighted bidi or fire torches used for scaring wild animals or to find paths at night on forest floor.



(iii) Protection of Forest

The reduced forest may be under further pressure from the mining workforce and surrounding villages for collection of fuel wood, small timber, N.T.F.P., and tubers etc. Reduction of biodiversity through the process and clearing of forest may make it further difficult for wildlife to sustain. Lack of ground cover shall subject the ground to erosion and create drier conditions.

(iv) Soil Erosion

Mining and ancillary activities in this region are likely to cause erosion of soil. Acceleration in the rate of erosion may induce formation of gullies & ravines and there is also the possibility of landslides in this hilly terrain occurring in the buffer zone. Besides, there will be soil erosion from over burden dump, top soil dumps, if not properly protected, cause heavy siltation and pollution in the perennial nalas and water courses. Besides there shall be Generation of harmful gases like CO, CO₂ and some amount of Nitrogen Oxides and SO₂. But the generation of CO and NO will be negligible. Fugitive dust will be generated along the road and around the adjoining wildlife habitat.

(v) Scarcity of water

The water flowing from the opened out pits, extraction paths and dumps shall be laden with red silt and contaminate the water of Dalko nala and other streams, rendering them unhygienic for animals as well as for human consumption. When this muddy water enters the rivers, rivulets and tanks etc. below; they also silt them up or contaminate them unless this is prevented. Due to siltation of stream beds frequent flooding takes place and submerges the wildlife habitat in the flood plains.

Laying out of extraction paths & roads, uprooting of vegetation will result in soil erosion and silting in existing natural water ways & in turn it may affect moisture retention at some sites increasing run off of rain water instead of gradual seepage in to the ground. This will create problem for wild animals to meet their water requirement in the wildlife habitat during summer months both in project area and impact area. Besides, water shall get contaminated due to soil erosion, dust and by oily substances dropped from the machineries and vehicles during rain.

(vi) Dust pollution

Dust generated due to mining activities, movement of vehicles and earth movers will not only affect the vegetation but also the health of wild animals particularly herbivores. Air pollution level will rise marginally due to excavation, high level production and over burden handling.



(vii) Noise pollution

Noise will be produced due to blasting, movement of earth movers, tippers and other mining machineries, movement of work force in the project areas. This will affect the tranquillity of the area and will disturb the animals. This will not only affect their health but also adversely affect their reproductive process. Many of them may desert the area out of fear and anxieties and get killed or run over by vehicles outside their habitat.

(viii) Water pollution:

The water flowing from the opened out pits, will be laden with red slit and contaminate the water, rendering water unhygienic for wild animals as well as for human consumption at some places. When this muddy water flows to the rivers, rivulets and water bodies etc. in the downstream, sedimentation will take place and the water bodies will be contaminated. There is possibility of flow of wash-offs towards the low-lying area and natural course causing contamination of water bodies in nearby villages.

(ix) Lighting:

All wild animals are adapted to an active or passive phase based on natural light or darkness. Artificial light disturbs their diurnal/nocturnal cycle of activity. Such disturbances affect physiology, metabolism and sets stress leading to disorientation and natural behaviour. Prolonged stress may terminate in death. It is reported that large number of carriage vehicles like Truck, Tippers are moving on the extraction path daily during day and night. Hence, light from these vehicles along with permanent light installations are affecting the wild animals a lot compelling them to stray away from the habitat.

(x) Accidental fall of animals:

Sometimes wild animals, in course of grazing, inter fighting, or being chased by others may fall in to the mining pits, which are wedge shaped & deep. Such pits are dangerous to them. They may be victim to serious injury or even death unless precautionary measures are taken.

(xi) Poaching

The crave for illegal poaching of wild animals by unscrupulous hunters may increase due to demand for wild life meat. For, there will be flow of money due to mining related activities and there shall be growth of road side Hotels, Dhabas etc. where demand of wild animal meat may rise.



(xii) Garbage

As large number of people shall be working in the mine in different outfalls, staying in colonies with family, working in the office, engaged in operation of railway and loading wagons etc, there is livelihood of generation of lot of garbage of all sorts on daily basis including liquid wastes. Unless they are removed and treated in proper manner, they shall cover the ground impeding regeneration and affecting wild animal health. Liquid wastes may contaminate the natural water bodies and soil.

(xiii) Grazing by livestock

As there is no general practice of stall feeding cattle in the area, they may graze in the forest patches and reclaimed mine site. They shall not only feed on natural vegetation, but also damage newly planted seedlings, cause soil erosion on hill slopes, deprive wild animals of their food. They may also transmit communicable diseases to the wild animals.

(xiv) Invasion of weeds

It was seen in the valley nearby that the blanks are full of exotic weed Parthenium. Next menace is Eupotarium odoratum that is spreading in forests where blanks are created. Of course Lantana camara has spread to a much lesser extent. Unless they are checked, they shall create severe hindrance for fodder availability for herbivores as blanks created due to mining activity may be colonized by them.

B. PROJECT IMPACT AREA

Mining and its ancillary activities not only adversely impact wild life in the lease area, but also the Wild life and their habitat in the surrounding i.e. zone of influence. This also brings social, demographic and economic changes in the surrounding villages and forest areas and creates pronounced impact to the detriment of wild life and its habitat. It also disturbs the tranquillity and serenity of the area. Some of the adverse impacts on wild life due to prolonged mining in this belt are as under.

- a) Fragmentation of Habitat due to Mining/Industries/Construction/Widening of Roads, Transmission lines/Railway lines expansion and new construction.
- b) Extensive Traffic pressure and transportation of minerals by Road/ Train.
- c) Depletion of tree cover/Forest crop density.
- d) Scarcity of Water in interior & high-altitude Forests in summer.
- e) Depletion of food stock and deterioration of quality food/fodder.
- f) Depletion of prey base/herbivorous.
- g) Heavy biotic interference and intrusion by domestic animals (Cattle/Goat/ Sheep).
- h) Illegal hunting by putting nets, electric live wire, etc.



Detail Impact of Jilling-Langalota iron ore mines shall exert the following additional impacts in the project impact area unless duly addressed as detail below.

i) Loss of habitat quality:

The habitat is not merely the quantity and extent of cover, food, water, community structure, their distribution and arrangement but freedom from fear and ability to move freely. Mosaic of mine, habitation and cultivation is adaptable but the disturbance is not. The wildlife habitat has already been lost in most of the areas due to mining and shall be further lost in future and the wild life shall have to depart from the lease area to adjoining forests. Therefore, the bio-diversity of the site shall not only be lost but it will adversely affect the surrounding causing devastation, unless plantations are raised in backfilled areas OB dumps etc.

The habitat in the buffer zone is subjected to deterioration by recurring annual forest fire, grazing by livestock, removal of firewood and brush wood by villagers and labour force of several mines operating in the area and illicit felling. The nalah water gets polluted with fine ore sediments from mines. The foliage of trees, shrubs get cover with a thick layer of dust. Under such condition, the habitat will further deteriorate to some extent and it will have adverse impact on the Wild Life for a short period.

ii) Scarcity of Water:

Now as it is observed the forests are more or less confined to Hills/Ridges. Plain Forests are decreasing day by day and are subject to much biotic pressure. Animals are withdrawing from forest fringes and concentrating on inaccessible pockets of Forest. Day by Day the rainfall is erratic and number of Rainy days in a year is decreasing, the nalla/Rivulets are drying up and in summer it became dry. The animals face water scarcity.

Sometimes, in search of water they come to nearby habitation and endangered their life. High pollution due to Dust, the water body is always turbid and difficult to get clear water for animals. Due to heavy silt carrying run off, the water bodies are heavily silted up. The life of inland water bodies are reducing remarkably than expected.

i) Forest fire: Although Forest fire in tropical forest is common in summer months and is a big threat to both flora and fauna, mining activities may further boost the same. Forest fire is likely to burn the ground flora, desiccate the soil, kill the ground dwelling animals, birds, reptiles and their young ones, char their nests and eggs. It may render hilly streams dry and destroy sub-terrain flora and fauna besides causing diseases in the standing trees. Forest fire is mainly caused by N.T.F.P collectors who do not extinguish fire created for



clearing the ground by negligence and leave lighted "bidi" on the forest floor. Therefore, fire control will be one of the major conservation activities.

ii) Man animal conflict: With the reduction of forest areas, its density and habitat quality, as narrated above different wild animals like Elephant, wild Boar and Sloth bear may visit the nearby villages and may attack standing crops, houses, grains and even people when confronted with. This will lead to 'man-animal' conflict. Due to further degradation & depletion of habitat the wild animals may stray out of the forest to the cultivated fields or houses, thereby coming in contact with people, which may result in man-animal conflict.

iii) Poaching: With flow of money due to mining related activities people tend to increase liking for wild animal meat and unscrupulous hunters may poach wild animals for table purposes. Such illegal shooting may affect adversely their population.

iv) Electrocution: Incidence of elephant casualties due to accidental contact with high tension transmission lines in recent times is creating concern in many parts of the state. Poor maintenance of electrical transmission installations with sagging conductor wires appears to be main reason for such avoidable incidents. There are electrical transmissions lines have been installed to supply power to the villages in the core and zone of influence and also to the mines. Although there are no instances of such incidents, the future possibility cannot be ruled out.

v) Effect on local economy: Though the rural economy of the surrounding areas will improve due to employment opportunity in mines and related activities, there will be still some people left out like old, weak & woman who most cannot find any employment. Hence, they may continue to be dependent on the small & fragmented forest patches for meeting their own need of forest produces like fuel wood, small timber & N.T.F.E etc. to eke out a living by selling such produce. Such activities will also affect the biodiversity.

vi) Opening of roads: Mining and its ancillary activities will increase the vehicular movement in the buffer zone for transportation of different products to the nearest railway siding or to National Highway. Therefore new roads, extraction paths will be developed in the forest areas reducing the forest cover, enhancing noise, dust, light pollution and facilitating poachers for illegal hunting of wild animals. More over widening of Express Highway and movement of large nos. of vehicles on it in 24 hour shall be a potential threat to elephant and other herbivores for road crossing from one habitat to other.

vii) Railway: A link from Jhakhapura-Bansapani Railway line of east coast railway runs in to the ML area for transportation of ore. This is a potential danger to the wild animals,



particularly to Elephants who come to the core and buffer areas of the lease from the adjoining forests and may be victim to accidents.

Probable Impact of the project on movement of mega fauna:

Movement of mega fauna like elephant has been discussed in Chapter-II and Map showing movement of elephants with reference to the lease area and project impact area has been furnished above. Although, mining activities has less impact on movement of mega fauna, the transportation of ore through extraction paths, state highways and National highway with the help of Trucks, Tippers and other vehicle shall impose a potential threat to wild elephants, small herbivores and carnivores, if site specific precautionary measures are not under taken.

Summary of Impacts

a. Wildlife and Habitats

- Reduction of habitats due to removal of trees for mining and allied activities.
- Increase in rate of forest fire due to mining work force, movement of vehicles carrying ores and by local people collecting MFP items. Repeated annual forest fire shall desiccate the soil and burns herbs, shrubs, climbers etc. and accelerate rate of runoff of rain water instead of percolation to ground shall cause water scarcity in talas.
- Accumulation of dust on foliages of trees, herbs, shrubs and grasses in the adjoining wildlife habitat due to mining activities and due to movement of large numbers of vehicles causing the fodder unsuitable for browsing by herbivores.
- Retardation of rate of photosynthesis in plants causing degradation of vegetation.
- Dust causes respiratory problems in wild animals as a result they will migrate to other safe habitats and shall be victim to poachers during migration.
- Production of heavy noise due to movement of earth movers, dumpers and heavy vehicles disturbing the tranquillity in the habitats which adversely affect the health of wild animals and their reproductive processes.
- Artificial light shall affect the diurnal/nocturnal cycle of activities of wild animals causing stress, change in physiology, metabolism and in natural behaviours.
- Accidental fall of wild animals in to mining pits in course of grazing and in fighting.
- Loss of habitat quality, fragmentation of habitats and movement path of animals, shortage of food and water for wild animals.
- They will stray from their natural habitat to corn fields, villages in search of food and water causing man animal/elephant conflicts, human injury/death, wild animal injury/death, elephant depredation, crop damage, road accident etc.



b. Water regime

- Mining at higher level and slopes shall cause water pollution in the seasonal and perennial nalas on which not only the wild animals but also the villagers residing down below shall be affected.
- Deforestation and degradation of forests in the catchment areas and steady flow of rain water down below without percolation to the ground shall cause water scarcity in the perennial nalas and river systems in the impact zone.
- Heavy accumulation of red silt and mud shall not only be dumped inside the nalas but also in the corn fields and village ponds located down below.
- Soil erosion shall occur in QB dumps, hill slopes, adjoining wildlife habitats by formation of gullies, water channels and even ravines etc. and shall drain out humus from the forest floor to down below retarding rate of growth of vegetation and natural regeneration.
- One perennial nala passes through the lease area and feed to the Baltarani river systems towards east. Due to loss of catchment area partly the river systems shall be dried up in summer season.

c. Livelihood mission

Due to rise in mining work force, opening of hutting, hotels, dhabas, forest dependence will increase for collection of fire wood, small timber and other MFP items causing further shrinkage and degradation of wildlife habitats on which the local people depend on for their domestic consumption. This will impact on their livelihood.



CHAPTER-4

OBJECTIVE OF MANAGEMENT AND MITIGATION STRATEGIES

A. OBJECTIVE OF MANAGEMENT:

The main objective of this plan is to reduce various stresses occurring due to implementation of this project in this particular locality having wildlife importance. The Site Specific Wildlife Conservation Plan will suggest measures to mitigate such stress and if possible, how to avoid certain activities which could reduce the negative influence. Wildlife management consists of promoting welfare factors, arresting or reducing the impacts of decimating factors and neutralizing harmful effects of limiting factors that keep the animal population lower than the carrying capacity of the area. It also aims at management of human dimensions relating to regulation of habitat use, sufferance from animal damages, livelihood issues and taking people as partners in conservation management. Such concerns are reflected in the prescriptions. The management of the project's core area will aim for maintenance of habitat for smaller animals that used to live and share habitat with Project area. The management of ZoI will target optimization and maintenance of wildlife habitat and biodiversity, involving local people as far as practicable and aim to avoid/minimize or mitigate the adverse impacts of the project activity. Small animals & larger ones like deer and elephants make use of the area regularly, as the area is undisturbed. Large animals will be disturbed from the area once the Plant commences with full expansion. The displaced animals should not be left as refugee. Their rehabilitation would be the major objective of the plan. To fulfil all these requirements, the plan focused on improving forage and browse volume by increasing food plant diversity with vertical and horizontal cover. These will arrest habitat destruction and fragmentations and also prevent soil erosion and loss of biodiversity. Keeping natural water resource free from negative impact of the project activity will also be targeted.

The objective of management to mitigate the threats to the wildlife covers the following aspects:

1. Conservation, Protection and Improvement of the flora and fauna in and around the Project area in a sustainable basis despite production of Steel and other ancillary activities. To conserve a viable population of Wildlife in general and the Pachyderm in particular in their natural habitat.



2. To conserve the natural biodiversity, aesthetic and geo-morphological value of the area through appropriate management of site, habitat and landscape.
3. To reduce the dependency of local people on the forest resources of the ZoI through culturally, socially, economically acceptable and ecologically sustainable and viable alternatives by undertaking eco-development programmes.
4. To reduce man-animal conflict by ensuring contiguity of habitat in the buffer zone by improving forest cover in long term basis.



B. STRATEGIES TO MITIGATE AND MINIMIZE ADVERSE IMPACTS:

1). Strategies for Core Zone:

I.1) Provision of a four wheeler vehicle along with its POL:-

Provision of a four wheeler vehicle along with its POL as well as maintenance costs and remuneration (as per Government approved high skilled labour rate for the concerned financial year) of driver under Keonjhar Forest Division towards mitigation of Human Wildlife Conflict issues.

Most of the times it is not possible to reach on an immediate basis to the sensitive points, where any conflict issues/depredation issues is going to happen. To minimize the time lapses, there is a provision to engage one four wheeler vehicle along with its POL as well as maintenance costs and remuneration (as per Government approved high skilled labour rate for the concerned financial year) of driver at Range Level in order to meet with immediate response.

I.2) Contribution to Similipal Tiger Foundation:-

There is frequent movement of elephant herds from Similipal to Keonjhar Division via- Karanjla due to the changed scenario. It is going to have adverse impact on elephant movement and man-elephant conflict caused thereby.

Hence there is a need to have study on long term impact of the mining project / activities on movements of elephants from Similipal to Keonjhar. Also to strengthen source habitats i.e. Similipal, Strengthening physical infrastructure, augmenting habitat and enhancing enforcement capabilities, Rs.2.00 crore is to be contributed to Similipal Tiger Foundation by the user agency. It will help in mitigating man-elephant conflict and will help in designing long term / prospective plan for elephant conservation in the land scape where this project has short term and long term impact.

Similipal Tiger Foundation is a Registered Society and involved in study of Wild animals life Cycle/ behavior and development of wildlife in the Similipal and in the State. It is proposed to contribute Rs2.00 Crores for development of Scientific Research and Create and develop scientific temper among all stake holders. The User Agency is to deposit the amount as per advice of the DFO, Keonjhar

I.3) Airavat:- (Elephant Transportation vehicle)

Elephant movement is very often seen in Karanjla Division, Raipur and Baripada Division, which are neighbouring Division of Keonjhar Division and coming under Baripada Circle. Inter- divisional movement of the elephants are also noticed. At some time, the transportation of elephant is required to shift them to the rescue centre, Nandankanan for treatment due to their illness, injury etc. Hence, the user agency will provide a vehicle/ truck (Chassis + modification) to Regional Chief Conservator of Forests, Baripada Circle for the above purpose.

I.4) Prosecution of wildlife cases:-



It is important to prepare the prosecution report of wildlife cases basing on the extant Act, Rules, Investigation report, Statement of witness, documents etc. to submit before the hon'ble court for trial and award the punishment to the offenders to demoralise such anti social elements. But in some cases, the offenders are getting acquitted due to shortcomings in investigation as well as Prosecution report.

Hence, it is felt necessary to engage retired IIC, Dy. SP/APP/PP to guide and to give suggestions for better Investigation & Preparation of Prosecution report of wildlife offence cases.

As such, One Retired Addl. SP / DSP/ IIC /ACF / RO / APP/PP will be Engaged in the Office of the Divisional Forest Officer, Keonjhar Division through Service Provider @ 40,000.00/- per month for above purpose and the above expenditure will be borne by the user agency for the interest of wildlife.

1.5) Engagement of P-NGO:-

Majority area of Keonjhar Division coming under BJP, Telkol and Keonjhar range has practice of the Podu cultivation in every year. Due to Podu cultivation the habitats of elephants are fragmented year to year. The PVTG especially Juanges & Bhuyans are involved in the Podu cultivation. So it is necessary to create awareness among the PVTG to give up the Podu cultivation.

So, it is suggested to engage P-NGO for sensitisation and create awareness among the PVTGs/ Forest fringe villages for preventing Podu cultivation in new areas and forest protection. This process will involve Engament of Key Stakeholders like peoples representatives, Pudhapati, Socially influential people and development of livelihood Schemes. Two team leaders for 5 years will be engaged for this initiative. The expenditure for the above purpose will be borne by the user agency.

1.6) AI Based Surveillance System to prevent elephant deaths on Railways tracks at sensitive locations in Champua Range.


Divisional Forest Officer,
Keonjhar Division



II) Strategies to mitigate and minimize the adverse impact so observed in the Zone of Influence (ZoI):

Protection & Enforcement Activities

II.1) Anti-depredation/Protection Squad to be engaged for mitigation of Human Elephant Conflict (HEC).

They will be engaged throughout the year to minimize depredation activities from wild animals especially from elephants. The trackers will be selected from local villages throughout the area well conversant with animal behaviours, particularly, elephants. The job of the trackers will be primarily to gather data on number of elephants, their location, their line of movement and the quantum and nature of depredation being done. Such data can be collected by pursuing elephants in morning hours along their spoor, when animals are on retreat to secluded spots (deep valleys, close to water or dense woods). Information obtained can be soon relayed to the Range officer, area Forester and concerned villagers. Regular tracking will help to map movement routes, identify intensity of depredation from which the nature of movement, whether benign or deliberate can be inferred. If the depredation is repetitive, a drive will be organized. This squad may also be engaged in the protection activities in order to assist the ground staffs. The overall aspect of protection from poaching, illegal conversion of woods, encroachments, wildlife trafficking etc. could be monitored on a regular basis. The safety of people and animals are prime concern of this squad. They will be provided with hired vehicle, fuel, mobile recharge facilities, medical expenses, uniform etc.

Wildlife Habitat Management

II.2) Habitat enrichment with other ancillary activities

Most of the forest patches are now devoid of continuous vegetation patches, for which preferred food species by Elephants is in a scarce condition inside the forest areas. Similarly due to absence of sufficient food sources, movement of elephant is diverted towards fringe village areas which in turns lead to Human-Elephant Conflicts. Therefore, it is proposed to improve their natural habitats by providing better wildlife habitats and subsequently improving the palatability of other wildlife also. Area near to habitation is required to be avoided. Palatability of species by animals especially liked by elephant is to be given due importance. In this context, around 75 ha of land have been identified in Baltarani-B RF for eradication of weeds.

Invasive weed Species like *Lantana*, *Eupatorium* etc. need to eradicate at the proposed identified patch towards further supplement of food, space and cover to the existing wildlife.

Meadow/grassland to be developed at the cleared patch of weeds in order to restrict the competition amongst the natural source of forest flora and subsequent addition towards space/cover to the wildlife. Around 5.0 ha of land has been identified in Chamakpur PRF near village Gugudari for development of meadow/grassland. The cost norm for meadow/grassland is enclosed as Annexure-V.



Wildlife Monitoring

II.3) AI based wildlife monitoring system with 03 nos. of remote cameras to mitigate HEC

Design, Implement and Support 24x7 E-Surveillance System (Electronic-eye, e-Eye) for forest areas of the desired ranges, including areas for elephants straying in the vicinity of Range, besides monitoring any kind of unwanted intrusion and to keep check on wildlife crime. The key objective of the system will be to provide accessibility to the remote areas using unmanned surveillance system. The system should be based on long-range thermal sensors to support seamless (24X7) surveillance and wireless technology to ensure minimal setup and interference in the Forest area i.e. no cables should be laid within the Forest boundaries.

The System should act on the following:

- System needs to be designed for protection of wildlife especially elephants.
- It has been observed that elephant herd moving across the forest boundaries is susceptible to the conflict situation. The system should enable reduction of such Human-elephant conflicts by generating appropriate alerts and warnings.
- All setups should be installed within forest land and should be self-sufficient.
- Model needs to be designed so that the communication and information flow is multilevel, precise and faster.
- The system should be capable of detection of forest fires.
- Self-intelligent AI/ML based system for tracking surveillance and alerting i.e. should keep on surfing and should zoom in case of tracking of animal/human/ any other moving object/object with body heat.
- Identify the human and animal trafficking remotely and generate appropriate moderated alerts with geographical information. Alert should show both geo-co-ordinates and name of locations.
- System should support live surveillance and live combing.
- System should provide proper alert cycle and system monitoring to identify the system failures.
- The system should be able to detect Human/cattle/vehicle detection and tracking within the restricted areas.
- Accidents and other such activities need to be detected, tracked and alerted through control and SMS/EMAIL on selected mobile numbers and on computer for persons having appropriate access permissions, besides control room.
- An Artificial Intelligence and Machine Learning based (24X 7 supports) for the complete system. Please note that the system should not only do live monitoring but should have software capabilities like species identification (Elephant/Cattle/Human) and other forest management features, pertaining specifically to forest.
- Poaching, trafficking, trend analysis and reporting should be integral part of the system.
- Establish and operationalize Control Room at desired location(s).
- Proper integration mechanism in the software should be provided to consume data from various sources like Drones, Direct and Indirect sightings and any other viable source as identified by the Department and agreed by the Bllder.
- The system should be capable of Integrating Images for elephant profiling and tagging. The ML Model needs to be designed in consideration with the above.



Human Elephant Conflict (HEC) Mitigation

II.4.a) Capacity building training for Field Staff

Elephant movement is seen most of the area of Keonjhar Division throughout the year. In harvesting season the number of elephants moving in this division reaches to 150 numbers.

Furthermore, due to fragmentation of their habitats the elephants are found to come out from the forest and raid the villages & crop fields. Hence, the human-Elephant Conflict is seen most of the areas of the division.

Further, wildlife offences are also seen in this division. Hence capacity buildings of the front line staffs of this division needs to be strengthened to deal with the such cases.

Therefore, capacity building training programme for field staff are to be conducted at Division Office in each year for the above purpose.

II.4.b) Deployment of Gaja Saathi - A participatory approach

Keonjhar Forest Division is very much important in respect of Human- Elephant conflict due to frequent movement of elephant. It is proposed to deploy Gajasathi in 10 units (One village unit consisting of 05 members) @ Rs. 80000/unit to keep a watch on elephant movement and take appropriate steps to resolve Human- Wildlife Conflict in different villages surrounding Jiling-Langalota Iron Ore Mines.

Forest Fire Management

II.5.a) Livelihood survey in 10 no. of villages.

During the fire season from February to June most of the fire incident occur because of fire ignition by local people. Generally in Keonjhar District local people collect Mahua flower for preparation liquor and use a food by the local tribes of the district. So, it has been proposed to conduct livelihood survey in around 10 villages of Jiling-Langalota Iron Ore Mines of OMC Ltd. to assess the people dependency on Mahua flower.

II.5.b) Incentive to "No Fire" village:

Incentive will be provided to villagers where zero fire incidents have been occurred during the fire season.

6.) Awareness meeting & incentives:

Awareness meeting is highly necessary in the shifting cultivation area to create awareness among the local villagers not to adopt this practice in further to encourage them. There should be provision of incentive for the local villagers to give up the shifting cultivation.


24/05/24
Divisional Forest Officer,
Keonjhar Division



CHAPTER-5 (A)

ANIMAL PASSAGE

This is not a linear project. Therefore, natural protection from experience of the wild livers who are dealing with their natural phenomenon is being practiced as mentioned in Mitigative Measures of Chapter-IV.



CHAPTER-6

FINANCIAL IMPLICATIONS AND MONITORING

Total financial Implication of Management Intervention and cash flow statement for 5 years (year wise) is given here. Also monitoring, evaluation and Interim review provision shall be mentioned.

Table 6.1: Financial provision of works to be implemented by User Agency/ Project Proponent

Sl. No.	Management Interventions	Area in ha./Unit in no./RKM	Total Amount (Rs. in Lac.)
1	<u>Provision of four wheeler vehicle along with its POL:-</u> Provision of four wheeler vehicle along with its POL as well as maintenance costs and remuneration (as per Government approved high skilled labour rate for the concerned financial year) of driver at Forest Range Office, Champua towards mitigation of Human Wildlife Conflict issues.	01 No.	To be Borne by User Agency
2	<u>Contribution to Similipal Tiger Foundation:-</u> Contribution of Rs. ^{2.50} 2.00 Crore to Similipal Tiger Foundation for undertaking the study on impact of this project to the movement of elephant from Similipal to Keonjhar Division.	01No.	
3	<u>Airavat:-</u> Elephant Transportation vehicle/ Truck, Chasis+ Modification (for Baripada Circle).	01 No.	
4	<u>Prosecution of wildlife cases:-</u> Engagement of Retired ACF/ IIC/ Dy.SP/ APP/PP for Prosecution of wildlife cases @ Rs.40,000.00/- per month Lumpsum through Service Provider.	01 No.	
5	<u>Engagement of P-NGO</u> Engagement of P-NGO for sensitization/ Awareness of PVTGs/ forest fringe villages for preventing view Podu cultivation and forest protection. (Two team leaders for 5 years) It will involve engagement of key Stakeholders like people representative, podapati, Socially influential people and detailment of livelihood Schemes.	02 No.	
6	AI Based Surveillance System to prevent elephant deaths on Railways tracks at sensitive locations in Champua Range	-	

Approved

[Signature]
Principal Chief Conservator of Forests
(Wildlife) & Chief Wildlife Warden
Odisha, Bhubaneswar

[Signature]
Divisional Forest Officer,
Keonjhar Division



Table 6.2: Financial provision of works in Zone of Influence to be implemented by Keonjhar Forest Division

Sl. No.	Management Interventions	Area in ha./Unit in no./RKM	Unit cost (RS. in Lac.)	Total Amount (Rs. in Lac.)
1	Protection & Enforcement Activities			
	Engagement of 10 Squad members for assisting staff in protection, wildlife monitoring and anti-depredation activities (@Rs.450.00 per Manday)- x 10 members x 12 months x 05 years to mitigate HEC issues.	10 Nos.	8.1	81.00
2	Wildlife Habitat Management			
	(a) Habitat enrichment along with other ancillary activities.			
	(I) Eradication of Invasive weeds @ 10,560/per ha in Baltarani-B RF	75 Ha	0.1056	7.92
	(II) Development of meadow/grassland in Chamakpur PRF near village Gugudarl	5 Ha	23.745	118.725
3	Wildlife Monitoring			
	(a) AI based wildlife monitoring system with 03 nos. of remote cameras	03 Nos.	1.5	4.5
4	Human Elephant Conflict Mitigation			
	(a) capacity building training for field staff on elephant human conflict management at division office/ prosecution	05 Nos.	1.5	7.5
	(b) Deployment of Gaja Saathi-A participatory approach (10 units of 05 members each @ Rs.80000/unit/year)	50 Nos.	0.8	40.00
5	Forest Fire Management			
	(a) Livelihood survey in 10 no. of villages	10 Nos.	2	20.00
	(b) Incentive to "No Fire" village.	10 Nos.	0.5	5.00
6	Public Awareness and Livelihood Generation Activity through community mobilization			
	Awareness meeting and Incentives for villagers to mitigate shifting cultivation and Forest Protection-P-NGO	50 Nos.	0.1	5.00
	Total			289.65
	20% Escalation			57.929
	Grand Total			347.57

269.65

62.93

328.58

Countersigned

Regional Chief Conservator of Forests
Rourkela Circle, Rourkela

Divisional Forest Officer,
Keonjhar Division

Approved except item No. 5(a)

Principal Chief Conservator of Forests
(Wildlife) & Chief Wildlife Warden
Odisha, Bhubaneswar



Site Specific Wildlife Conservation Plan of Jilting-Langatola Iron Ore Mines of OMC Ltd. under Barbil Tahasil of Keonjhar District of Odisha



6.3 Annual Work Programme:

Details of the flow of funds for five years of the plan for ZOI are given below (Rs. In Lac)

Sl. No.	Management Interventions	Area in ha./Unit in no./ RKM	Total Amount (Rs. in Lac)	Year wise Financial Target (Rs. In Lac.)				
				1st year	2nd year	3rd year	4th year	5th year
1	Protection & Enforcement Activities Engagement of 10 Squad members for assisting staff in protection, wildlife monitoring and anti-depredation activities (@Rs.450.00 per Mandy)- x 10 members x 12 months x 05 years to mitigate HEC issues.	10 Nos.	81	16.2	16.2	16.2	16.2	16.2
2	Wildlife Habitat Management (a)Habitat enrichment along with other ancillary activities. (i) Eradication of invasive weeds @ 10,560/per ha in Baitarani-B.RF. (ii) Development of meadow/grassland.	75 Ha 05 ha.	7.92 118.725	1.584 9.978	1.584 4.786	1.584 4.695	1.584 4.286	1.584 0
3	Wildlife Monitoring AI based wildlife monitoring system with 03 nos. of remote cameras.	3 Nos.	4.5	4.5	0	0	0	0
4	Human Elephant Conflict Mitigation (a) Capacity Building training for Field Staff on Elephant Human Conflict management at Division Office. (b) Deployment of Gaja Saathi - A participatory approach (10 units of 05 members each @ Rs.80,000/unit/year).	05 Nos. 50 Nos.	7.5 40	1.5 8	1.5 8	1.5 8	1.5 8	1.5 8
5	Forest Fire Management (a) Livelihood survey in 10 no. of villages. (b) Incentive to "No Fire" village.	10 Nos. 10 Nos.	20 5	10 1	10 1	0 1	0 1	0 1
6	Public Awareness and Livelihood Generation Activity through community mobilization Awareness meeting and incentives for villagers to mitigate shifting cultivation and Forest Protection	50 Nos.	5	1	1	1	1	1
Total			289.6	53.76	44.07	33.98	33.57	29.28
20% Escalation			57.929	10.7524	8.814	6.7958	6.714	5.8568
Grand Total			347.57	64.514	52.884	40.775	40.284	35.141

Countersigned

Regional Chief Conservator of Forests
Rourkela Circle, Rourkela

Divisional Forest Officer,
Keonjhar Division



Site Specific wildlife Conservation Plan of Jiling-Langalota Iron Ore
Mines of OMC Ltd. under Barbil Tahasil of Keonjhar District of Odisha



**Government of Odisha
Steel and Mines Department**

ORDER

No. 338 /SM
IV(B)SM-11/2020

11-01-2021

Sub: Grant of Mining Lease for Iron ore in favour of Odisha Mining Corporation Limited. In respect of Jilling-Langlota Iron ore block over an area of 456.037 hac (as per DGPS)/ 456.100 hac (as per RoR) in village Jalahuri, Juruli, Bansapani, Khuntapani, Bholebeda and Jajang under Barbil Tahasil of Keonjhar district.

Whereas in pursuance to the order No.F.No.4/1/2020-M.VI dated 05.01.2021 issued by the Central Government, the Jilling-Langlota iron ore block in Keonjhar district has been reserved in favour of Odisha Mining Corporation Limited for a period of 10 years vide notification No.299/SM dated 11.01.2021.

And whereas, it (OMC Ltd) has been issued with a Letter of Intent vide letter No.307/SM dated 11.01.2021 for grant of mining lease for a period of 10 years followed with Order No.317/SM dated 11.01.2021 transferring all the valid rights, approvals, clearances, licensees and the like vested with the previous lessee in favour of the LoI holder for a period of 2 years.

And whereas, OMC Ltd. has accepted the terms & conditions of the said LoI vide its letter No. 631/OMC/2020 dated 11.01.2021.

Now, therefore, Government, after careful consideration, in exercise of powers conferred under section 17A (2C) of MMDR Act read with order dated 05.01.2021 of the Central Government as cited supra, have been pleased to grant the mining lease for Iron ore in favour of Odisha Mining Corporation Limited in respect of Jilling-Langlota Iron Ore block over an area of 456.037 hac (as per DGPS)/ 456.100 hac (as per RoR) in village Jalahuri, Juruli, Bansapani, Khuntapani, Bholebeda and Jajang under Barbil Tahasil of



Keonjhar district for the period of 10 (ten) years which shall be executed within 15 (fifteen) days from the date of issue of this grant order.

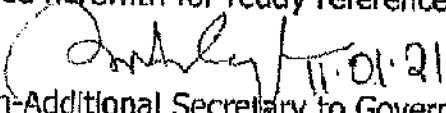
By order of the Governor


O.S.D-Cum-Additional Secretary to Government

Memo No. 339 /SM

Dated: 11.01.21

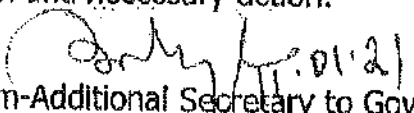
Copy forwarded to MD, Odisha Mining Corporation Limited, Bhubaneswar for information and further necessary action. He is requested to ensure payment of required NPV before execution & registration of the lease deed, which shall be completed within the aforesaid stipulated period. Copy of the draft lease deed format is also enclosed herewith for ready reference.


O.S.D-Cum-Additional Secretary to Government

Memo No. 340 /SM

Dated: 11.01.2021

Copy forwarded to Indian Bureau of Mines, Bhubaneswar/ MoEF& CC, 534, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi 110003/ MoEF& CC (FC Division), Indira Paryavaran Bhawan, Aliganj, Jorbagh Road, New Delhi 110003/ SPCB, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar, Odisha, 751012/ Director General of Mines Safety, Chalbasa Region, Chalbasa, 833201 /Ministry of Water Resource, River Development and Ganga Rejuvenation, West Block-2, Wing 3, Sector-1, R.K. Puram, New Delhi-110066 for information and necessary action.


O.S.D-Cum-Additional Secretary to Government

Memo No. 341 /SM

Date: 11.01.2021

Copy forwarded to Director of Mines, Odisha, Bhubaneswar/ Deputy Director of Mines, Jajpur/ DFO, Cuttack for information and necessary action. Copy of the draft lease deed format is also enclosed herewith for ready reference.



O.S.D-Cum-Additional Secretary to Government

Memo No. 342 /SM

Date: 11.01.2021

Copy forwarded to the Collector, Jajpur District for information and necessary action. He is authorized to execute the mining lease deed after

ensuring the payment of NPV by the Lessee M/s OMC Ltd. and transmit a copy of the duly registered deed to all concerned including this Department. Copy of the draft lease deed format is also enclosed herewith for ready reference.


O.S.D-Cum-Additional Secretary to Government

Memo No. 343 / SM

Date: 11.01.2021

Copy forwarded to Forest and Environment Department/ PCCF(Nodal), Bhubaneswar for information and necessary action.


O.S.D-Cum-Additional Secretary to Government

2022100001



11.01.2021

सत्यमेव जयते

INDIA NON JUDICIAL
Government of Odisha
e-Stamp

Certificate No.	: IN-OD01560940427432T
Certificate Issued Date	: 12-Jan-2021 07:05 AM
Account Reference	: SHCIL (FI)/ odshcil01/ KEONJHAR/ OD-KJR
Unique Doc. Reference	: SUBIN-ODODSHCIL0102072401985221T
Purchased by	: ODISHA MINING CORPORATION LTD REP BY T BASA
Description of Document	: Article IA-35 Lease Deed
Property Description	: JILLING LANGALOTTA IRON ORE BLOCK OVER AN AREA OF 456.100 HA AS PER ROR / 456.037 HA AS PER DGPS
Consideration Price (Rs.)	: 371,69,84,563 (Three Hundred Seventy One Crore Sixty Nine Lakh Eighty Four Thousand Five Hundred And Sixty Three only)
First Party	: GOVERNOR OF ODISHA THROUGH THE COLLECTOR KEONJHAR
Second Party	: ODISHA MINING CORPORATION LTD REP BY T BASA
Stamp Duty Paid By	: ODISHA MINING CORPORATION LTD REP BY T BASA
Stamp Duty Amount(Rs.)	: 18,58,50,229 (Eighteen Crore Fifty Eight Lakh Fifty Thousand Two Hundred And Twenty Nine only)



Please write or type below this line.....

M. Lottama Basa

T. Basa
 Addl. General Manager (Geo)
 Power of Attorney Holder
 Odisha Mining Corporation Ltd.
 Bhubaneswar

0012831282

Statutory Alert:

1. The authenticity of the Stamp certificate should be verified at www.shastestamp.com or using e-Stamp Mobile App of Shastha Holding.
2. Any discrepancy in the details on this Certificate and as available on the website / Mobile App readers should report.
3. The onus of checking the legitimacy is on the users of the certificate.
4. In case of any discrepancy please inform the Competent Authority.

Milottama Basi

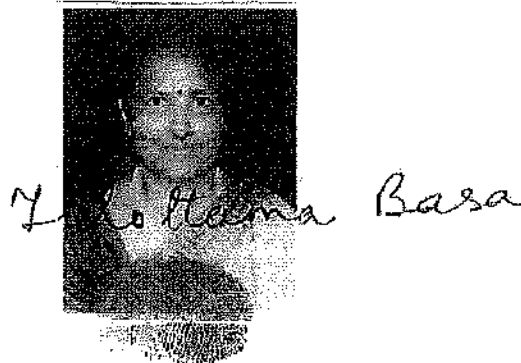
Signature of the
purchaser




11.01.2021
Dist Registrar
Kanchi

Document Id No. 2022/00001
Registration No. 12.0.22/0001
Vol. No. 1
Year 2021

11.01.2021
Dist Registrar
Keonjhar



MINING LEASE DEED

This deed for grant of a mining lease "Jilling-Langlotta Iron ore Block" is made by and between the following.

PARTIES:

1. The Governor of Odisha, acting through the Collector, Keonjhar, Steel & Mines Department, Government of Odisha.

AND

2. The Odisha Mining Corporation Ltd. incorporated in India under the Companies Act, [1956/2013] with corporate identity number [CIN: U131000R1956SGC000313], whose registered office is at OMC House, Bhubaneswar-751001, Odisha duly represented through their Power of Attorney holder Mrs. T. Basa, Additional General Manager (Geology), Odisha Mining Corporation Ltd., Aadhar No.- 739875317433. (the "Lessee")

BACKGROUND:

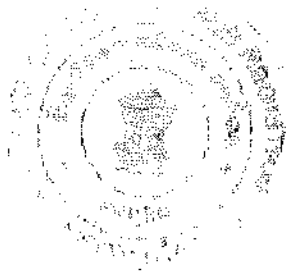
- A. Consequent upon approval of the Central Government, issued in exercise of powers conferred on it under section 17(2) of MMDR Act read with section 20A, and communicated vide its order No-F No4/1/2020-M.VI dated 05.01.2021, the State Govt. have been pleased to issue Notification vide No.299/SM, Dt.11.01.2021 reserving Jilling-Langlotta Iron Ore Block over an area of 456.100ha (as per ROR)/ 456.037ha (as per DGPS) in Keonjhar District in favour of OMC Ltd. for carrying out mining operation for the period of 10 years.

T. Basa

11-01-2021

T. Basa
Addl. General Manager (Geology)

1
Collector
KEONJHAR



9
11.01.2021
Dist. Registrar
Karayinar

**Endorsement of the certificate of admissibility**

Admissible under rule 25: duly stamped under the Indian stamp (Orissa Amendment act 1 of 2008) Act 1899, Schedule 1-A No. 35(b) Fees Paid : A5(c)-74340022 ,A-21-10 ,D-60, User Charges-350 ,Total 74340442

Date: 11/01/2021

Signature of Registering officer

Endorsement under section 52

Presented for registration in the office of the Sub-Registrar District-Registrar KEONJHAR ADM between the hours of 10:00 AM and 1:30 PM on the 11/01/2021 by THE GOVERNOR OF ODISHA REPRESENTED BY COLLECTOR KEONJHAR(GOVT) , son/daughter/wife of , of KEONJHAR , by caste , profession and finger prints affixed.



Signature of Presenter / Date: 11/01/2021

Signature of Registering officer:

Endorsement under section 58

Execution is admitted by :

Name	Photo	Thumb Impression	Signature	Date of Admission of Execution
THE GOVERNOR OF ODISHA REPRESENTED BY COLLECTOR KEONJHAR(GOVT)	Execution By THE GOVERNOR OF ODISHA REPRESENTED BY COLLECTOR KEONJHAR(GOVT) Who is Exempt from personal Appearance in this office U/S 88 Act XVI of 1908 approved by	Execution By THE GOVERNOR OF ODISHA REPRESENTED BY COLLECTOR KEONJHAR(GOVT) Who is Exempt from personal Appearance in this office U/S 88 Act XVI of 1908 approved by	Execution By THE GOVERNOR OF ODISHA REPRESENTED BY COLLECTOR KEONJHAR(GOVT) Who is Exempt from personal Appearance in this office U/S 88 Act XVI of 1908 approved by Signature of the Registering officer	

- B. Pursuant to the Reservation order dated 11.01.2021 cited supra, Government of Odisha have issued the Letter of Intent vide letter No.307 dated 11.01.2021 for grant of Mining Lease in respect of Jilling-Longlootta Iron Ore Block over an area of 456.100ha (as per ROR)/ 456.037ha (as per DGPS) in Keonjhar District in favour of OMC Ltd. for carrying out mining operation for the period of 10 years.
- C. On acceptance of the terms & conditions of the said Lol, OMC Ltd. have been granted with the mining lease by the State Government vide order No.338/SM, dated 11.01.2021.
- D. Accordingly, the State Government is now executing this deed for grant of a Lease to the Lessee in consideration of the fee, royalties, covenants and agreements hereinafter reserved and contained on the part of the Lessee to be paid, observed and performed.

1. DEFINITIONS

- The expressions used in this Lease shall have the same meaning as ascribed to them under the Act and the rules made there under.

2. GRANT OF LEASE

- 2.1. The State Government hereby grant the Lease to the Lessee over an area described in schedule B ("Lease Area") for conducting mining operations for a period of 10 years, commencing from the date on which this duly executed mining lease deed is registered with respect to following mineral(s), ("Iron Ore").
- 2.2. The Lessee shall be with respect to all those the mines beds / veins seams of the Minerals situated lying and being in or under the Lease Area.
- 2.3. Subject to the Lessee paying the royalties and making other payments required to be paid and observing and performing all the covenants and agreements herein contained and on the part of the Lessee to be observed and performed shall and may quietly hold and enjoy, the rights and premises of the Lease Area for and during the term hereby granted without any unlawful interruption from or by the State Government, or any person rightfully claiming under it.
- 2.4. The maximum annual production under approved scheme of mining/mining plan is 6278000 tonnes of Iron ore Mineral(s).

Provided that in case the lessee desires to enhance the annual production limit after revising the scheme of mining and obtaining the requisite statutory clearances, he shall execute an amendment to the lease deed before enhancing the annual production beyond the aforementioned limit.

Tilottama Basa

T. Basa
Addl. General Manager (Legal)
Mining Department
Government of Odisha

[Signature]
COLLECTOR
KEONJHAR

3. RIGHTS AND OBLIGATIONS

3.1. The rights and obligations of the State Government and the Lessee shall be as specified in the Act and the rules made there under, including without limitation the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016.

3.2. Without prejudice to the generality of the foregoing,

(a) the Lessee shall:

- (i) at all times comply with the provisions of the Act and the rules made there under and any other applicable law;
- (ii) make prompt payment of royalty and any other payment required to be made by the Lessee;
- (iii) pay such compensation as may be assessed by lawful authority in accordance with the law in force on the subject for all damage, injury, or disturbance which may be done by the Lessee in exercise of the powers granted by this Lease and to indemnified fully and completely the State Government against all claims which may be by any person or persons in respect of any such damage, injury or disturbance and all costs and expenses in connection therewith;
- (iv) take measures, at his own expense, for the protection of environment like planting of trees, reclamation of mined land, use of pollution-control devices, and such other measures as may be prescribed by the Central or State Government from time to time;
- (v) without delay send to the Deputy Commissioner/Collector a report of any accident causing death or serious bodily injury or serious injury to property or seriously affecting or endangering life or property which may occur in the course of the operations under this Lease;
- (vi) weigh or cause to be measured or weighed upon some part of the Lease Area all minerals from time to time won from the Lease Area, with [number of days] prior notice being given to the Deputy Commissioner/Collector every such measuring or weighing in order that he or some person on his behalf may be present thereat;
- (vii) submit to the State Government a full report of the work done by the Lessee and disclose all information acquired by the Lessee in the course of the operations carried on under this Lease regarding the geology and mineral resources of the area covered by the Lease; and

Milattama Basa

T. Basa
Addl. General Manager (Genl)
Power of At. & New Building
Odlana Mining Corporation Ltd
Gadong, Kuching

M. Basa
COLLECTOR
KEONJHAN

THE ODISHA
MINING
CORPORATION LTD
REPRESENTED BY
TILOTTAMA BASA



242477059

[Signature]

12-Jan-2021

Identified by PRASANTA KUMAR SAHOO Son/Wife of HAREKRISHNA SAHOO of REGIONAL
MANAGER, BARBIL REGION, OMC LTD by profession Service

Name	Photo	Thumb Impression	Signature	Date of Admission of Execution
PRASANTA KUMAR SAHOO			<i>[Signature]</i>	11-Jan-2021

41723955

Date: 11/01/2021

[Signature]
11.01.2021
Signature of Registering officer

Endorsement of certificate of registration under section 60

Registered and true copy filed in : Office of the District-Registrar, KEONJHAR ADM

Book Number : 1 || Volume Number : 1

Document Number : 12022100001

For the year : 2021

Seal :

Date: 12/01/2021

Print



[Signature]
12.01.2021
Signature of Registering officer
Keonjhar

- (viii) pay stamp duty and registration charges as may be applicable in respect of this deed.
 - (ix) The mining leaseholder(s) shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
 - (x) In case the production level is enhanced through modification of the Mining Plan in future the stamp duty may be re-assessed on the differential production level and the lessee shall deposit the differential stamp duty before such enhancement is actually carried out by him.
- (b) The State Government shall:
- (i) have the right to, all times to enter into and upon and to grant or demise to any person or persons whomsoever liberty to enter into and upon the Lease Area for all or any purpose other than those for which sole rights and Lease and hereby expressly conferred upon the Lessee, including without limitation, to make on, over or through the said lands such roads, tramways and ropeway as shall be considered necessary or expedient for any purposes and to obtain from and out of the said lands such stone, earth or other materials as may be necessary or requisite for making repairing or maintaining such roads, tramways, railways and ropeways to pass and repass at all times over and along such roads, tramways and ropeways for all purposes and as occasion shall require;
 - (ii) have the right to appropriate any performance security provided by the Lessee in accordance with terms of such performance security and require the Lessee to replenish the performance security. In case the performance security has been provided through a security deposit after termination of the Lease and fulfilment of all obligations of the Lessee, such security deposit shall be returned to the Lessee after appropriate deductions. It is clarified that the security deposit shall not carry any interest; and

Lilottama Basa

T. Basa
Addl. General Manager (P&G)
Power of Attorney, Odisha
Odisha Mining Corporation Ltd.
Bhubaneswar

Keonjhar
COLLECTOR
KEONJHAR



3
11.01.2021
Dist Registrar
Kanjhar

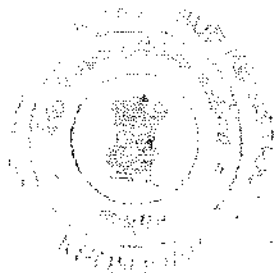
- (iii) have the right to carry out or perform any work or matters which in accordance with the covenants in that behalf are to be carried out or performed by the Lessee, but have not been so carried out or performed within the time specified in that behalf, and the Lessee shall pay the State Government on demand all expenses which shall be incurred in such carrying out or performance of the same;

- 3.3. If the State Government is desirous of exercising its right of pre-emption with respect to any mineral(s) the State Government shall pay the average sale price of such minerals as published by IBM prevailing at the time of pre-emption.
- 3.4. In the event of the existence of a state of war or emergency (of which existence the Pr. Government time and at all time during the said term have the right (to be exercised by a notice in writing to the Lessee/Lessees) forthwith take possession and control of the works, plant, machinery and premises of the Lessee on connection with the Lease Area or the operations under this Lease and during such possession or control, the Lessee shall conform to and obey all directions given by or on behalf of the Central or State Government regarding the use of employment of such works, plants, premises and minerals, provided that fair compensation, which shall be determined in default of agreement by the State Government shall be paid to the Lessee for all loss or damage sustained by him/them by reason or in consequence of the exercises of the powers conferred by this clause and provided also that the exercise and provisions of this clause.
- 3.5. If after the receipt of an offer of compensation for damage which is likely to arise from the proposed operation of the Lessee, the occupier of the surface of any part of the said lands shall refuse his consent to the exercise of the rights and powers reserved to the State Government and granted by this Lease, the Lessee shall report the matter to the State Government and shall deposit with it the amount offered as compensation and if the State Government is satisfied that amount of compensation is reasonable or if it is not so satisfied and the Lessee shall have deposited with it such further amount as the State Government may consider reasonable, the State Government shall order the occupier to allow the Lessee to enter upon the

Milottama Basa

T. Basa
Asstt. General Secy.
Dept. of Land Revenue
Gadchod, P. W. Dist. Co. S. P.
M. S.

M. Basa
COLLECTOR
KEONJHAR



03
14.07.2021
Dist Registrar
Kannur

said land and carry out such operations as may be necessary for the purposes of the Lease. In assessing the amount of such compensation the State Government shall be guided by the principles of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation & Resettlement Act, 2013.

- 3.6 Every notice required to be given to the Lessee shall be given in writing to such person as may be nominated by the Lessee and such nomination shall be informed to the State Government in writing. If no such nomination is made then the notice shall be sent to the Lessee by registered post/speed post addressed to the Lessee at the address shown in the application for the Lease or at such other address in India as the Lessee may designate from time to time and every such service shall be deemed to be proper and valid service upon the Lessee and shall not be questioned or challenged by him.
- 3.7 If in any event the orders of the State Government are revised, reviewed or cancelled by the Central Government in pursuance of proceedings under the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2015, the Lessee shall not be entitled to compensation for any loss sustained by the Lessee in exercise of the powers and privileges conferred upon the Lessee by these presents.

4. GOVERNING LAW

This Lease and all questions of its interpretation shall be construed in accordance with the laws of India. In the event of any dispute in relation to this Lease and in respect of all matters touching the relationship of the Lessee and the State Government, suits or petition shall be filed in civil courts at Keonjhar and it is hereby expressly agreed that neither party shall file a suit or appeal or bring any actions at any place other than the courts named above.

Milottama Basa

T. Basa
Addl. General Manager (Gen)
Power of Attorney holder
Odisha Mining Corporation Ltd.
Bhubaneswar

Prasenjit
COLLECTOR
KEONJHAR



03
11.01.2021
[Signature]
[Name]

For the purpose of Stamp Duty the anticipated annual royalty from the demised land is
Rs.3,69,81,18,680/-


In witness whereof thereof there presents have been executed at Keonjhar on
11/1/21

In the presence of witness

1. 
Joint Director of Mines,
Jada, Dist.-Keonjhar.

Signed By

2. 
Mining Officer
Keonjhar Circle, Keonjhar


COLLECTOR, KEONJHAR
For & behalf of the Government of
Odisha.

In the presence of witness

Prasanta Kumar Sahoo
11.01.2021
1. Regional Manager Barbil

Yilottama Basa
11.01.2021
LESSEE

2. Bibhanti Bhushan Mishra
Dy. A. M. (Asst.)
O-M C Hd.
Bhushan Mishra.

T. Basa
Addl. General Manager (Genl)
Mining of Barbil & Barbil
District of Keonjhar (Dist.)
Keonjhar

ANNEXURE - (II)

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan,
Aliganj, Jor Bag Road,
New Delhi - 110003

Dated: February, 2024

To

The Addl. Chief Secretary (Forests),
Government of Odisha,
Bhubaneswar

Sub: Proposal for seeking prior approval of the Central Government under Section 2 (1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 in favour of M/s Odisha Mining Corporation Limited for non-forestry use of 22,697 ha of forest land of Jilling-Langlota Iron Ore Block within total Mining Lease area of 456.100 ha in Keonjhar District, Odisha.

Sir,

I am directed to refer to the Government of Odisha's letter No. FE-DIV-FLD-0044-2022-9593/FE&CC dated 25.05.2022 on the above subject seeking prior approval of the Central Government under Section 2 (1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and letter No. 23386/9F (MG)-70/2021 dated 30.11.2023 forwarding additional information as sought by the Ministry vide its letter of even number dated 05.06.2022 and to say that the proposal has been examined by the Forest Advisory Committee constituted by the Central Government under Section-3 of the aforesaid Act.

After careful examination of the proposal of the State Government and on the basis of the recommendations of the Forest Advisory Committee, and approval of the same by the competent authority of the MoEF&CC, New Delhi, the Central Government hereby accords 'in-principle' approval under Section 2 of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 in favour of M/s Odisha Mining Corporation Limited for non-forestry use of 22,697 ha of forest land of Jilling-Langlota Iron Ore Block within total Mining Lease area of 456.100 ha in Keonjhar District, Odisha subject to fulfilment of the following conditions:

1. Legal status of the diverted forest land shall remain unchanged;
2. **Compensatory Afforestation:**
 - i. The compensatory afforestation over non-forest land, equal in extent to the forest land being diverted i.e. 22,697 ha, shall be raised by the State Forest Department at the project cost within two years from the date of issue of diversion order of the forest land. At least 1000 plants per hectare shall be planted over identified non-forest land and if it is not possible to plant so

- many saplings in the area identified for CA, the balance saplings will be planted in any other forests as per prescriptions of approved working plan with provision for ten years on subsequent maintenance;
- ii. The User Agency shall transfer the cost of raising and maintaining the compensatory afforestation as per the approved CA Scheme at the current wage rate in consultation with State Forest Department in the account of CAMPA of the concerned State through online portal;
 - iii. The land identified for raising Compensatory Afforestation shall be notified by the State Government under Section-4 or PF under Section-29 of the Indian Forest Act, 1927 or under the relevant Section (s) of the local Forest Act, as the case may be, before the Stage-II approval;
 - iv. The cost of survey, demarcation and erection of permanent pillars, if required on the identified CA land, shall be deposited in advance with the Forest Department by the user agency. The CA will be maintained for 10 years. The scheme may include afforestation of indigenous species with appropriate provision for anticipated cost increase for works scheduled for subsequent years;
 - v. 25% of the CA cost additionally will be spent towards soil and moisture conservation activities in the proposed CA area as per site requirement and deposited in CAF.
 - vi. *The State Government shall ensure that non-forest land of 22.697 ha proposed for raising compensatory afforestation is made available free from all encumbrances and detail of the same shall be submitted along with the compliance of 'in-principle' approval.*
 - vii. *The State Government shall ensure that the non-forest land of 46.082 ha identified for raising compensatory afforestation in lieu of diversion of 342.602 ha of forest land granted on 8.10.2014, already transferred and mutated in favour of the State Forest Department, is notified as PF under the Indian Forest Act or local Act and a copy of the same shall be submitted along with the compliance of 'in-principle' approval.*

3. Net Present Value:

- i. User Agency shall transfer the funds towards the cost of Net Present Value (NPV) of the forest land being diverted under this proposal from the User Agency, as per the orders of the Hon'ble Supreme Court of India dated 28.03.2008, 24.04.2008 and 09.05.2008 in Writ Petition (Civil) No. 202/1995 and the guidelines given under para 3 of the Chapter -3 of the Consolidate Guidelines and Clarifications Issued under the Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980 and Van (Sanrakshan Evam Samvardhan) Rules, 2023 published by the Ministry on 29.12.2023, through e-payment module on PARIVESH portal, into the account of CAMPA of the State concerned, managed by the National Authority (CAMPA);
- ii. At the time of payment of the Net Present Value (NPV) at the present rate, the user agency shall furnish an undertaking to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India;

4. The penalty for violation of the Adhiniyam for using the 22.697 ha of forest land w.e.f. 9.03.2015 onwards and executing leases by including 22.697 ha of forest land without the prior approval of the Central Government under the Adhiniyam shall be equal to 5 times the normal rates of NPV over 22.697 ha of forest land w.e.f. 9.03.2015 onwards plus 12 percent simple interest from the date of raising of such demand till the deposit is made;
5. Action against the officers responsible for violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, 1980 shall be taken under 3(A)/ 3(B) or under relevant local Act of the State and/or Central Act for unauthorized use of forest land without the permission;
6. Compensatory levies to be realized from the User Agency under the project shall be transferred/ deposited, through e-payment module on PARIVESH portal (<https://parivesh.nic.in/>), into the account of CAMPA of the State concerned, managed by the National Authority (CAMPA);
7. The KML files of diverted area, the CA areas, the proposed SMC treatment area and the WLMP area shall be uploaded on the e-Green watch portal with all requisite details prior to 'Final' approval;
10. Following activities, as per approved plan / schemes, shall be undertaken in the lease area by the User Agency under the supervision of the State Forest Department. Approved scheme/plan shall be submitted to the Ministry along with compliance of 'In-principle' approval:
 - i. Mitigation measures, to minimize soil erosion and choking of stream, shall be implemented within a period of two years with effect from the date of issue of order of diversion of forest land, in accordance with the approved Plan in consultation with the State Forest Department;
 - ii. Planting of adequate drought hardy plant species and sowing of seeds, in the appropriate area within the mining lease to arrest soil erosion in accordance with the approved scheme;
 - iii. Construction of check dams, retention /toe walls to arrest sliding down of the excavated material along the contour in accordance with the approved scheme;
 - iv. Stabilize the overburden dumps by appropriate grading/benching, in accordance with the approved scheme, so as to ensure that angles of repose at any given place is less than 28°; and
 - v. No damage shall be caused to the top-soil and the user agency will follow the top soil management plan;
11. User agency either himself or through the State Forest Department shall undertake gap planting and soil and moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40), if any, located in the area within 100 meter from outer perimeter of the mining lease. The plan for plantation and SMC activities will be prepared and submitted to MoEF&CC along with the compliance of 'in-principle' approval;
12. The User Agency shall prepare a list of existing village tanks and other water bodies with GPS co-ordinates located within five km from the mine lease boundary. This list is to be duly verified by the concerned Divisional Forest Officer. The User Agency shall regularly undertake desilting of these village

tanks and other water bodies so as to mitigate the impact of siltation of such tanks/water bodies. A detailed approved plan for desilting of identified ponds and water bodies to be prepared in consultation with forest department and shall be submitted to MoEF& CC along with the compliance of 'in-principle' approval;

13. **Safety Zone Management:** Following activities, at project cost, shall be undertaken by the user agency for the management of safety zone as per relevant guidelines issued by the Ministry's guidelines:
 - i. User agency shall ensure demarcation of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its fencing, protection and regeneration by erecting adequate number of 6 feet high RCC boundary pillars inscribed with DGPS coordinates with barbed wire fencing and deploying adequate number of watchers under the supervision of the State Forest Department;
 - ii. Boundary of the safety zone of the mining lease, adjacent to habitation/roads, should be properly fenced by the user agency;
 - iii. Safety zone shall be maintained as green belt around mining lease and to ensure dense canopy in the area, regeneration shall be taken up in this area by the user agency at project cost under the supervision of the State Forest Department; and
 - iv. The State Government and the user agency shall ensure that safety zone is maintained as per the prescribed norms;
14. The cost of felling of trees shall be deposited by the User Agency with the State Forest Department;
15. Trees should be felled in phased manner as per the requirement in the approved Mining Plan with prior permission of concerned DFO;
16. The user agency shall explore the possibility of translocation of maximum number of trees identified to be felled and shall ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department;
17. A Site Specific Wildlife Management Plan to mitigate the impact of project on wildlife of the area shall be prepared by the state Government in consultation with the PCCF & Chief Wildlife Warden of State at project cost and an approved copy of the same along with detail of deposition of funds into the CAMPA account shall be submitted to the Ministry along with the compliance of 'in-principle' approval;
18. The User Agency shall undertake mining in a phased manner after taking due care for reclamation of the mined over area. The concurrent reclamation plan as per the approved mining plan shall be executed by the User Agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the concern Addl. Principle Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such

time, such reclamation activities area satisfactorily executed;

19. The User Agency shall comply with the Hon'ble Supreme Court order on re-grassing, and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner;
20. Period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under;
21. The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;
22. No labour camp shall be established on the forest land and the User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas;
23. The boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates;
25. The layout plan of the mining plan/ proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that specified in the proposal;
26. The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;
27. No damage to the flora and fauna of the adjoining area shall be caused;
28. Any other condition that the concerned Regional Office of this Ministry may stipulate with the approval of competent authority in the interest of conservation, protection and development of forests & wildlife;
29. The user agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project; and
30. Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019;
31. The User Agency shall submit the annual self-compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly;
32. The State Government and user agency shall ensure compliance to all conditions stipulated in the Stage-I approval letter dated 06.03.2023 for which undertakings have been obtained from the user agency and also the

provisions of the all Acts, Rules, Regulations and Guidelines, relevant Hon'ble Court Order (S) and NGT Order (S), if any, or the time being in force, including compliance of the Schedule Tribes and Other Traditional Forest Dwellers (Recognition of Forests Rights) Act, 2006, before handing over the forest land to the user agency;

33. The compliance report shall be uploaded on e-portal (<https://parivesh.nic.in/>).

After receipt of a satisfactorily report on the compliance of conditions stipulated in the extant 'in-principle, as mentioned above, from the State Government, the proposal shall be considered for 'Final' approval under section 2 of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980. Transfer of forest land shall not be affected by the State Government till the 'Final' approval, to the extant proposal, is granted by the Central Government.

Signed by Amit Anand
Date: 09-02-2024 15:17:37

Yours faithfully,

(Amit Anand)
Assistant Inspector General of Forests

Copy to:

- i. PCCF (HoFF), Department of Forests, Government of Odisha, Bhubaneswar.
- ii. Dy. DGF (Central), Regional Office of the MoEF&CC at Bhubaneswar.
- iii. Nodal Officer (FCA), Department of Forests, Government of Odisha, Bhubaneswar.
- iv. User Agency
- v. Monitoring Cell, FC Division, MoEF&CC, New Delhi for uploading on PARIVESH portal.

101-420

By Speed Post

No. J-11015/959/2007-IA.II(M)
Government of India
Ministry of Environment & Forests

534, Paryavaran Bhavan,
C.G.O. Complex, Lodi Road,
New Delhi-110 003.

Dated the 7th June, 2012

To
✓ M/s Essel Mining & Industries Ltd.
✓ PO: Jajang,
District Keonjhar,
Odisha-758 052
E-mail: emilbbl@adityabirla.com

Subject: Expansion of Jilling Langlotia Iron and Manganese Ore Mining and Iron Ore Beneficiation Plant Project of M/s Essel Mining & Industries Ltd. located in Village Jajang, Tehsil Barbil, District Keonjhar, Odisha environmental clearance regarding.

Sir,

This has reference to your letter No. JLM/GEOL/-/2010-11 dated 24.09.2010 and subsequent letter dated 29.01.2011 on the subject mentioned above. The project was earlier prescribed Terms of Reference (TORs) by the Ministry of Environment and Forests on 25.06.2008 for undertaking detailed EIA study for the purpose of obtaining environmental clearance. The proposal is for enhancement of production of iron ore from 4.2 million tonnes per annum (million TPA) to 6.28 million TPA and installation of iron ore beneficiation plant with a capacity of 3.4 million TPA throughput. This project was earlier accorded environmental clearance by the Ministry vide letter No. J-11015/194/2005-IA.II(M) dated 17.03.2006 for enhancement of the production capacity of the mine from 0.75 million TPA to 4.2 million TPA.

2. The total mine lease area of the project is 456.1ha, out of which 369.592a is forestland, 1.372ha is surface water bodies and 85.136ha is others (41.26ha is private land and 43.876ha is non-forest Government land). Area proposed for mining is 202.753ha, an area is 42.98ha kept for OB dumps, 9.666ha for mineral storage, 5.997ha for infrastructure, 4.482ha for roads, 11.712ha for railway siding, 14ha for mineral beneficiation plant 33.531ha for township area, 0.069ha for magazine, 36.055ha is railway acquired area, 10.477ha for public use, 51.07ha reclaimed area and 33.308ha is for safety zone. The Baitarni River is located at a distance of 1km from the mine lease boundary. The Dalko nallah is passing through the mine lease. Modification/diversion in the existing natural drainage pattern at any stage has not been envisaged.

3. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the mine and that the area does not report to form corridor for Schedule-I fauna. In support of this, the proponent has submitted a letter No. 1349/IWL(C)-167/2011 dated 23.02.2011 along with an authenticated map from the Conservator of Forest (Wildlife), Bhubaneswar. The Karo-Karampada Elephant corridor is reported to be located at a distance of 19.2km from the mine lease boundary. The Baitarni RF forms part of the mine lease area and buffer zone of the mine. In addition, the Chamakpur RF is located in the buffer zone of the mine at a

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distance of 1.5km from the Eastern boundary of the Mine lease. About 27 mines are reported to be located in the buffer zone of the mine.

4. The mine working will be opencast by mechanized method involving drilling and blasting. The targeted production capacity of the mine is 6.28 million TPA and the life of mine is 12 years. The transportation of mineral is by combination of road (4733 TPD) and rail (6133 TPD). Iron ore (ROM) processed in tandem by crushing and screening through the crushers and screening plants. The end products after processing are calibrated lumpy ore and iron ore fines. The 3.4 million TPA throughput beneficiation plant will be set up within the lease for up-gradation of low grade material. It includes crushing, screening, grinding, washing, classifying jigging, cycloning in magnetic separator etc. The composite feed ore with size range -40mm will be scrubbed in water medium to break the agglomerates of fine particles. The beneficiation plant will produce coarse product of +8mm finished material of 63% Fe and to produce 2.2 MTPA concentrate of -8mm material. The tailings obtained from the plant would be pumped and impounded in pond after dewatering. The topography of the area is undulated and hilly and reported to lie between 21°57'00" to 21°59'00" N Latitude and 85°25'20" to 85°27'00" E Longitude in Survey of India topo sheet No. 73 G/5, at an elevation above mean sea level ranging from 490m-620m. The ultimate working depth of mine will be 449m AMSL. The groundwater table is reported at 430m AMSL. Mine working will not intersect the groundwater table. The water requirement for the project is 6412 m³ per day, which will be obtained from the groundwater and the surface water. The stage of groundwater development is shown to be 42%. It has been envisaged that displacement of population and R&R has not been involved. It is estimated that 10.79 million tonnes of waste will be generated during the mine life, out of which about 5.64 million tonnes of waste generated up to the year 2014 will be disposed in the waste dump and the waste generated thereafter will be backfilled in the mined out area. An area of 42.98 ha will be used for waste dump at the conceptual stage. The maximum projected height of the dumps will be 30m. There will be two tailing ponds with a capacity of 1.5 million tonnes and 7.5 million tonnes, which will be used alternatively such that the tailings from the tailing pond-1 will be recovered in alternate year and used for backfilling in the mined out area of Langalota pit. About 5 million tonnes of tailings will be recovered for backfilling. It is proposed that the tailing pond will be lined with 0.5 mm thick HDPE lining. Plantation will be raised in an area of 295.49 ha at the end of the mine life and there will be no water body left during the post mining stage.

5. The public hearing of the project was held on 17.06.2010 for expansion of iron production from 4.2 MTPA to 6.28 MTPA (ROM) and proposed 3.4 MTPA iron ore beneficiation plant over an area of 456.1 ha. The Indian Bureau of Mines had approved scheme of mining alongwith PMCP of the project on 17.04.2009 over an area of 456.1 ha. The Chief Conservator of Forests (WL) and CWLW, Orissa approved site specific wildlife conservation plan of the project on 15.12.2010, with financial outlay of Rs. 412.0 Lakhs. Permission for drawl of groundwater to the extent of 1564 m³ per day has been obtained from Central Ground Water Authority on 10.03.2008. An agreement has been signed with the State Government for use of surface water to the extent of 5715 m³ per day. The capital cost of the project is Rs. 748.91 Lakhs and the capital cost for the environmental protection measures is proposed as Rs. 448 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 148 Lakhs.

6. It has been noted that the mine has continued to operate after it fell due for renewal in 2007 without obtaining requisite prior environmental clearance. Office of the Collector and District Magistrate, Keonjhar dated 24.4.2012 informed that the prosecution report has been filed in the Court of Civil Judge (Jr. Division) - cum - JMFC, Barbil on

18.04.2012 vide CrI. Case No. 2(c) C.C. 26/2012 to take cognizance of offences by the said court under Section 15 of Environment (Protection) Act, which has been committed by the offending project which has been taken on record.

7. The Ministry of Environment and Forests has examined the application in accordance with the EIA Notification, 2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned Jilling Langlofa Iron and Manganese Ore Mining and Iron Ore Beneficiation Plant Project of M/s Essel Mining & Industries Ltd. for an annual production capacity of 6.28 million tonnes of iron ore (ROM) by the opencast mechanized method involving total mine lease area of 456.100ha and setting up of a iron ore beneficiation plant with a capacity of 3.4million TPA throughput, within the mine lease, subject to implementation of the following conditions and environmental safeguards.

A. Specific Conditions

- (i) The Environment Clearance is co-terminus with the mine lease.
- (ii) No mining shall be carried out in the forestland without obtaining requisite prior forestry clearances under the Forest (Conservation) Act, 1980 for forestland involved in the project. The environmental clearance is subject to grant of forestry clearance.
- (iii) The project proponent shall obtain Consent to Establish and Consent to Operate from the State Pollution Control Board, Orissa and effectively implement all the conditions stipulated therein.
- (iv) The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table. In case of working below the ground water table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.
- (v) Adequate safety zone as per the guidelines of DGMS on both sides of Dalco nallah passing through the lease area shall be left as no mining zone and no waste shall be dumped within this safety zone.
- (vi) The Company shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter-alia provide for (i) Standard operating process / process to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions, (ii) Hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions and (iii) System of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders.
- (vii) The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. Adequate measures shall be taken for conservation and protection of the 1st and 2nd order streams, if any emanating or passing through the mine lease during the course of mining operation.
- (viii) The top soil, if any shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land

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reclamation and plantation.

- (ix) The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
- (x) The effluent from the ore beneficiation plant shall be treated in the tailing thickener and the tailings slurry shall be transported through a closed pipeline to the tailing dam.
- (xi) The tailing dam shall be lined on all the sides as well as in the bottom with 0.5 mm thick HDEP lining.
- (xii) The decanted water from the tailing dam shall be re-circulated and there should be zero discharge from the tailing dam.
- (xiii) Appropriate technology shall be used for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing dam.
- (xiv) The project proponent shall constitute an emergency management team under the control of project incharge to deal with the emergency situation pertaining to the tailing dam for the timely and effective control of emergency situation. It shall be ensured that training programme & mock drills shall be organized for the employees.
- (xv) The over burden generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. The maximum projected height of dump shall be 30m. Proper terracing of the OB dumps shall be carried out so that the overall slope of the dump shall be maintained to 28°. The over burden dump shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Bhubaneswar on six monthly basis.
- (xvi) Catch drains and siltation ponds of appropriate size shall be constructed around the tailing ponds, mine working, soil, OB and mineral dump(s) to prevent run off of water and flow of sediments directly into the Dalko nallah, the Baitarni river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after the monsoon and maintained properly.

Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed around the tailing ponds, mine pit, soil, OB and mineral dump(s) to prevent run off of water and flow of sediments directly into the Dalko nallah, the Baitarni river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.

- (xvii) Dimension of the retaining wall at the toe of the over burden dumps and the OB benches within the mine to check run-off and siltation shall be based on the rain fall data.
- (xviii) Plantation shall be raised in an area of 295.499ha including a 7.5m wide green belt in the safety zone around the mining lease by planting the native species around reclaimed area, mine benches, tailing ponds, along the roads etc. in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per hectare. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
- (xix) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (xx) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and records maintained.
- (xxi) The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
- (xxii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease, including beneficiation plant and tailing ponds by establishing a network of existing wells and installing new piezometers during the operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhubaneswar, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.
- (xxiii) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water), if any, required for the project.
- (xxiv) Appropriate mitigative measures shall be taken to prevent pollution of the Baitarni River in consultation with the State Pollution Control Board.
- (xxv) The project proponent shall practice suitable rainwater harvesting measures on long term basis and work out a detailed scheme for rainwater harvesting in consultation with the Central Groundwater Authority and submit a copy of the same to the Ministry of Environment and Forests and its Regional Office, Bhubaneswar.
- (xxvi) Vehicular emissions shall be kept under control and regularly monitored. Measures

shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.

- (xxvii) No blasting shall be carried out after the sunset. Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
- (xxviii) Drills shall either be operated with the dust extractors or equipped with water injection system.
- (xxix) Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
- (xxx) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.
- (xxxi) Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- (xxxii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xxxiii) Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its Regional Office.
- (xxxiv) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely elephant etc. spotted in the study area. All the safeguard measures brought out in the approved Wildlife Conservation Plan prepared specific to the project site shall be effectively implemented in consultation with the State Forest and Wildlife Department. A copy of approved wildlife conservation plan shall be submitted to the Regional Office of the Ministry of Environment and Forests, Bhubaneswar.
- (xxxv) The critical parameters such as RSPM (Particulate matter with size less than 10micron i.e., PM₁₀) and NO_x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA.II(M)

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dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.

(xxxvi) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

B. General conditions

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.
- (ii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
- (iii) No change in the calendar plan including excavation, quantum of mineral iron ore and waste should be made.
- (iv) At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10 micron i.e., PM_{10}) and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.
- (v) Data on ambient air quality [RSPM (Particulate matter with size less than 10 micron i.e., PM_{10}) and NO_x] should be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (vi) Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
- (vii) Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
- (viii) Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.
- (ix) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

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- (x) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
 - (xi) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bhubaneswar.
 - (xii) The project authorities should inform to the Regional Office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
 - (xiii) The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
 - (xiv) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Bhubaneswar, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Bhubaneswar, the respective Zonal Officer of Central Pollution Control Board and the State Pollution Control Board.
 - (xv) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
 - (xvi) The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.
 - (xvii) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Office of the Ministry of Environment and Forests, Bhubaneswar by e-mail.
 - (xviii) The project authorities should advertise at least in two local newspapers of the District or State in which the project is located and widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment

and Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.

8. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

9. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

10. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made thereunder and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Orissa and any other Court of Law relating to the subject matter.

11. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Neeraj Khatri
(Neeraj Khatri)
Deputy Director

Copy to:

- (i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- (ii) The Secretary, Department of Environment, Government of Orissa, Secretariat, Bhubaneswar.
- (iii) The Secretary, Department of Mines and Geology, Government of Orissa, Secretariat, Bhubaneswar.
- (iv) The Secretary, Department of Forests, Government of Orissa, Secretariat, Bhubaneswar.
- (v) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cmu-Office Complex, East Arjun Nagar, Delhi-110032.
- (vi) The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests, A-3 Chandrashekharpur, Bhubaneswar-751023.
- (vii) The Chairman, Orissa State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012.
- (viii) The Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (ix) The District Collector, District Keonjhar, Government of Orissa.

112-

(x) EI Division, Ministry of Environment & Forests, EI Division, New Delhi.

(xi) Monitoring File.

(xii) Guard File.

(xiii) Record File.

(Nceraj Khatri)
Deputy Director

Annexure-V

**Cost Norm for development of meadow @ 02 ha.
(at labour cost Rs.450/-per mandays)**





Sl. No.	Item of works	Man days	Amount (inRs.)	Materials cost (inRs.)	Total Cost (in Rs.)
1st Year Operation					
1	Survey and Demarcation	6	2700	0	2700
2	Site clearance& weed eradication	-	-	100000	100000
3	Ploughing& Cross Ploughing by tractor/ Power Tiller with application of weedicide @ 50 kg per ha	-	-	60000	60000
4	Cost of CDM for 200 cum @ Rs.1200/- including cost of transportation	-	-	240000	240000
5	Cost of spreading of SDM @ 0.5 MD per cum	100	45000	0	45000
6	Solar fencing-6 Strands with 45x45x5mm Iron angle Including energizer, battery in complete over 593 mtr	-	-	420000	420000
7	Cost of NB hybrid Napier Grass slip/other grass	-	-	80000	80000
8	Planting of Grass Slip	600	270000	0	270000
9	Provision of deepweel with 8"dia -1 No.	-	-	180000	180000
10	Laying of HDPE pipeline with hydrant for sprinkler irrigation with all fittings	-	-	200000	200000
11	DG Set with 2HP motor for watering	-	-	360000	360000
12	POL and other lubricants for March'2024	-	-	18000	18000
	Total:-	706	317700	1658000	1975700
			1% LabourCess		19757
	G-Total:-				1995457
2nd Year Operation					
1	Maintenance of Fencing	-	-	75000	75000
2	Watch and ward including watering & Line Bonding	1248	561600		561600
3	POL and Other Lubricants for 9 months except rainy season & 18000/- per month		-	162000	162000
4	Casualty replacement of Grass Slip		-	50000	50000
5	1st Weeding @60 MD per ha	120	54000		54000
6	2nd weeding @50 MD per ha	100	45000		45000
	TOTAL:-	1468	660600	287000	947600
			1% LabourCess		9476
	G-Total:-				957076

3rd Year Maintenance					
1	Maintenance of Fencing	-	-	75000	75000
2	Watch and ward including watering & Line Bonding	1248	561600		561600
3	POL and Other Lubricants for 9 months except rainy season & 18000/- per month		-	162000	162000
4	Casualty replacement of Grass Slip		-	50000	50000
5	1st Weeding @50 MD per ha	100	45000		45000
6	2nd weeding @40 MD per ha	80	36000		36000
	TOTAL:-	1428	642600	287000	929600
			1% LabourCess		9296
	G-Total:-				938896

4th Year Maintenance					
1	Maintenance of Fencing	-	-	75000	75000
2	Watch and ward including watering & Line Bonding	1248	561600		561600
3	POL and Other Lubricants for 9 months except rainy season & 18000/- per month		-	162000	162000
4	Casualty replacement of Grass Slip		-	50000	50000
	TOTAL:-	1248	561600	287000	848600
			1% LabourCess		8486
	G-Total:-				857086

Abstract						
Sl. No.	Item of works	Labour Cost (inRs.)	Labour Cess 1%	Materials cost (in Rs.)	Total Cost (in Rs.) for 2 ha	Total Cost (in Rs.) for 1 ha
1	1st Year Planting	317700	19757	1658000	1995457	9,97,728.50 or Say 9,97,800.00
2	2nd Year Maintenance	660600	9476	287000	957076	4,78,538 or Say 4,78,600.00
3	3rd Year Maintenance	642600	9296	287000	938896	4,69,448 or Say 4,69,500.00
4	4th Year Maintenance	561600	8486	287000	857086	4,28,543 or Say 4,28,600.00
	TOTAL:-	2182500	47015	2519000	4748515	23,74,500.00 Or say 23.745 Lacks

SCALE=1:50000

	MILLING MINING LEASE BOUNDARY
	10 KM. RADIUS BOUNDARY
	OTHER MINING LEASE WITHIN 10 KM. RADIUS BOUNDARY
	RANGE BOUNDARY

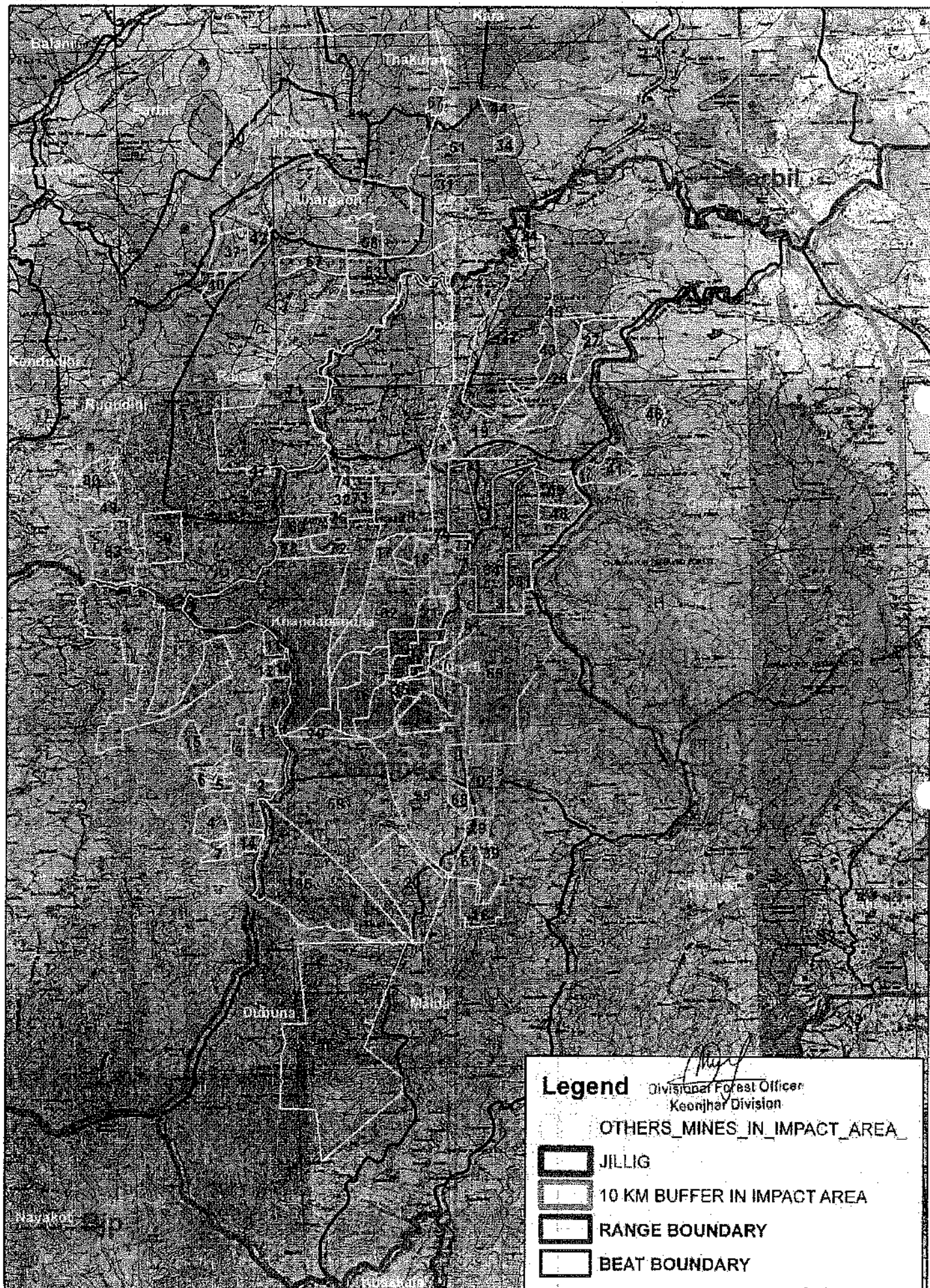
CHAMAKPUR



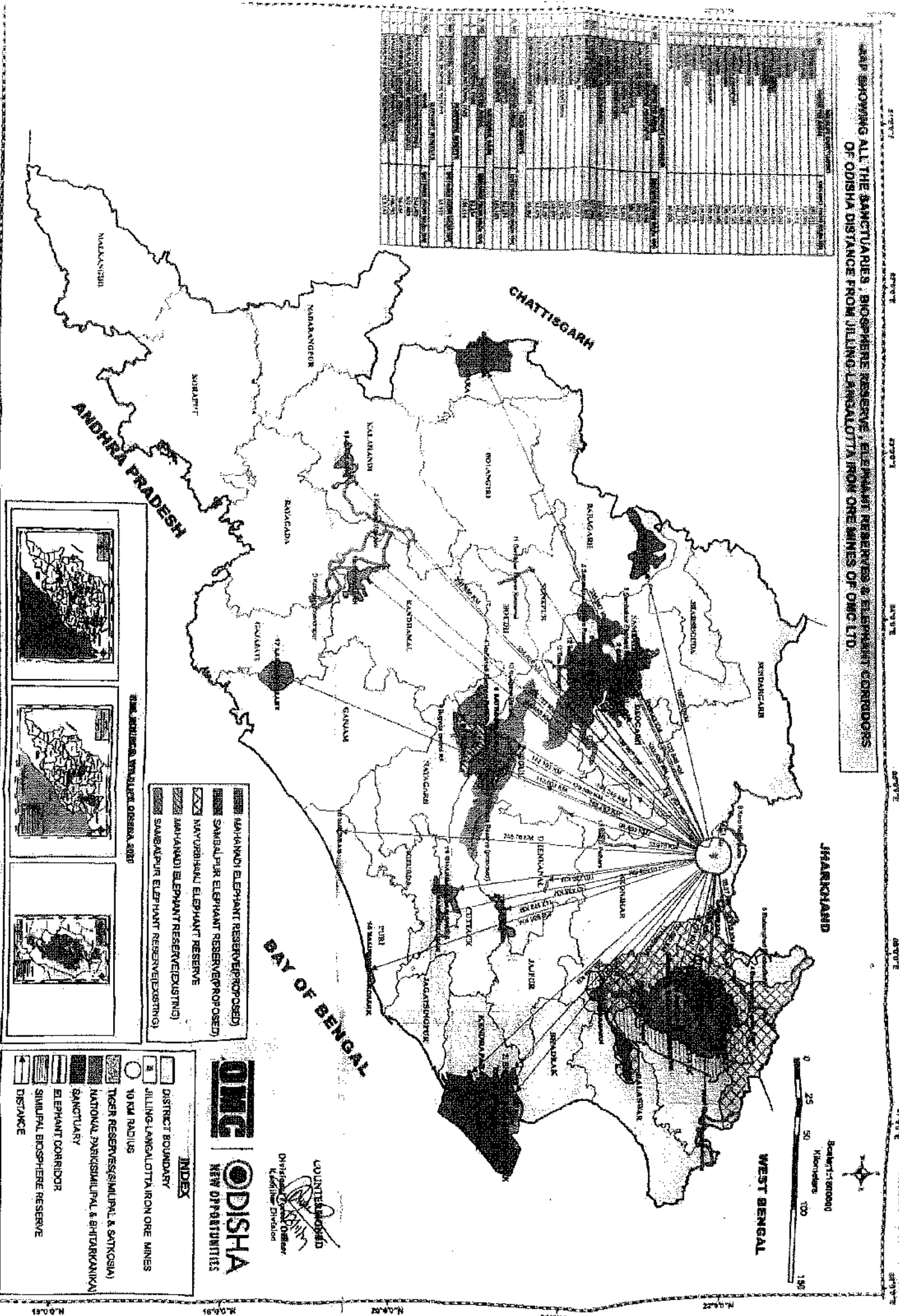
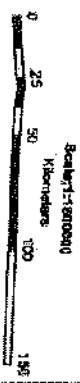
OTHER MINES IN IMPACT AREA (JILLING MINES)

PLATE-D

1 cm = 1 km



MAP SHOWING ALL THE SANCTUARIES, BIOSPHERE RESERVE, ELEPHANT RESERVES & ELEPHANT CORRIDORS OF ODISHA DISTANCE FROM JILING LANGALOTTA IRON ORE MINES OF ONG LTD.



- MAHANADI ELEPHANT RESERVE (PROPOSED)
- SAMBALPUR ELEPHANT RESERVE (PROPOSED)
- MAYURBHANJ ELEPHANT RESERVE
- MAHANADI ELEPHANT RESERVE (EXISTING)
- SAMBALPUR ELEPHANT RESERVE (EXISTING)

ONGC
NEW DIPARTMENTS

CO-OPERATION
Odisha Iron Ore
Mining Division



- INDEX**
- DISTRICT BOUNDARY
 - JILTING LANGALOTTA IRON ORE MINES
 - 10 KM RADIUS
 - TIGER RESERVES (SIMULPAL & SATKOSAJ)
 - NATIONAL PARKS (SIMULPAL & SATKOSAJ)
 - SANCTUARY
 - ELEPHANT CORRIDOR
 - SIMULPAL BIOSPHERE RESERVE
 - DISTANCE

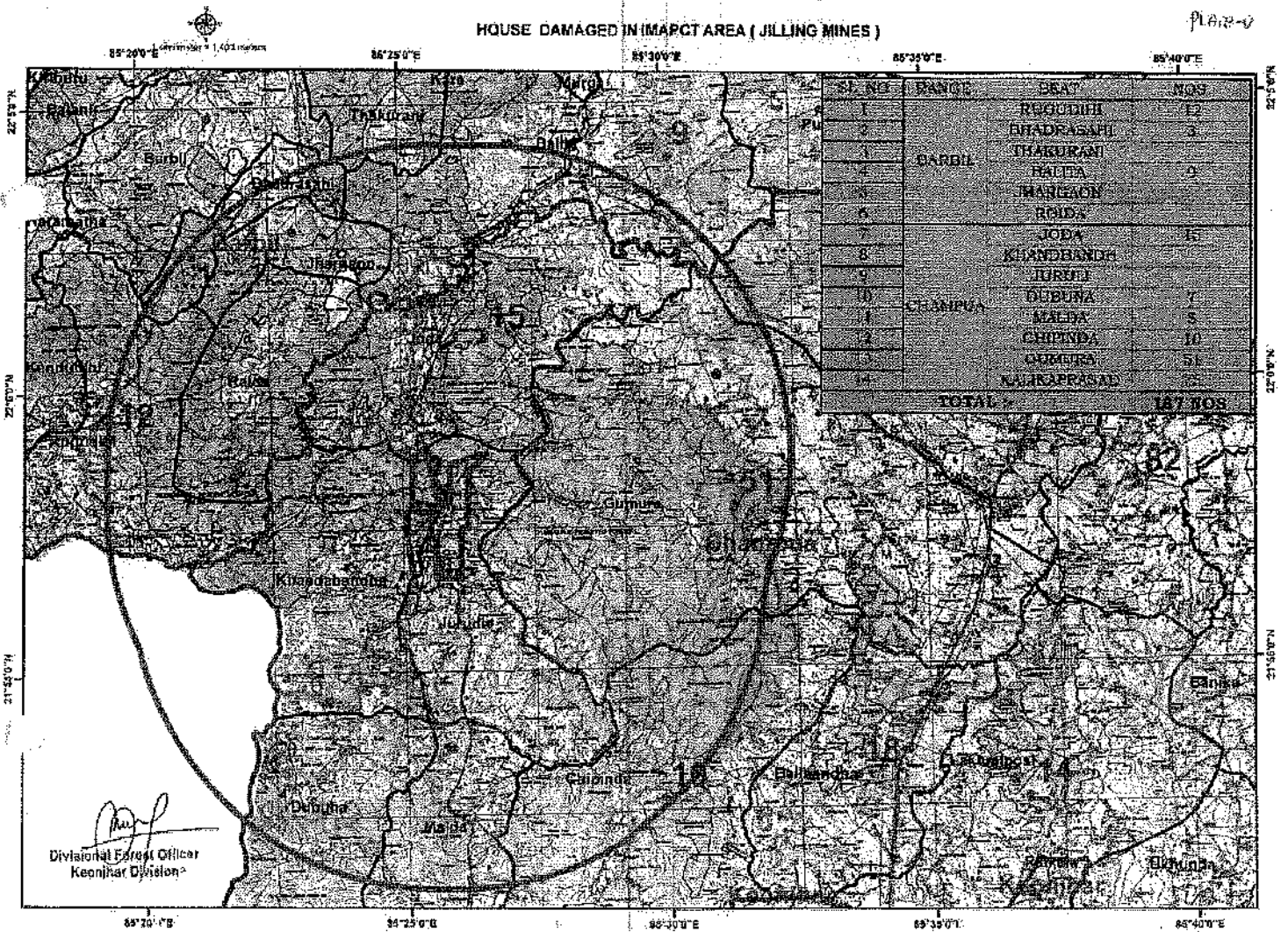


ELEPHANTS MOVEMENT POSITION IN IMPACT AREA (JILLING MINES) PAGE IV



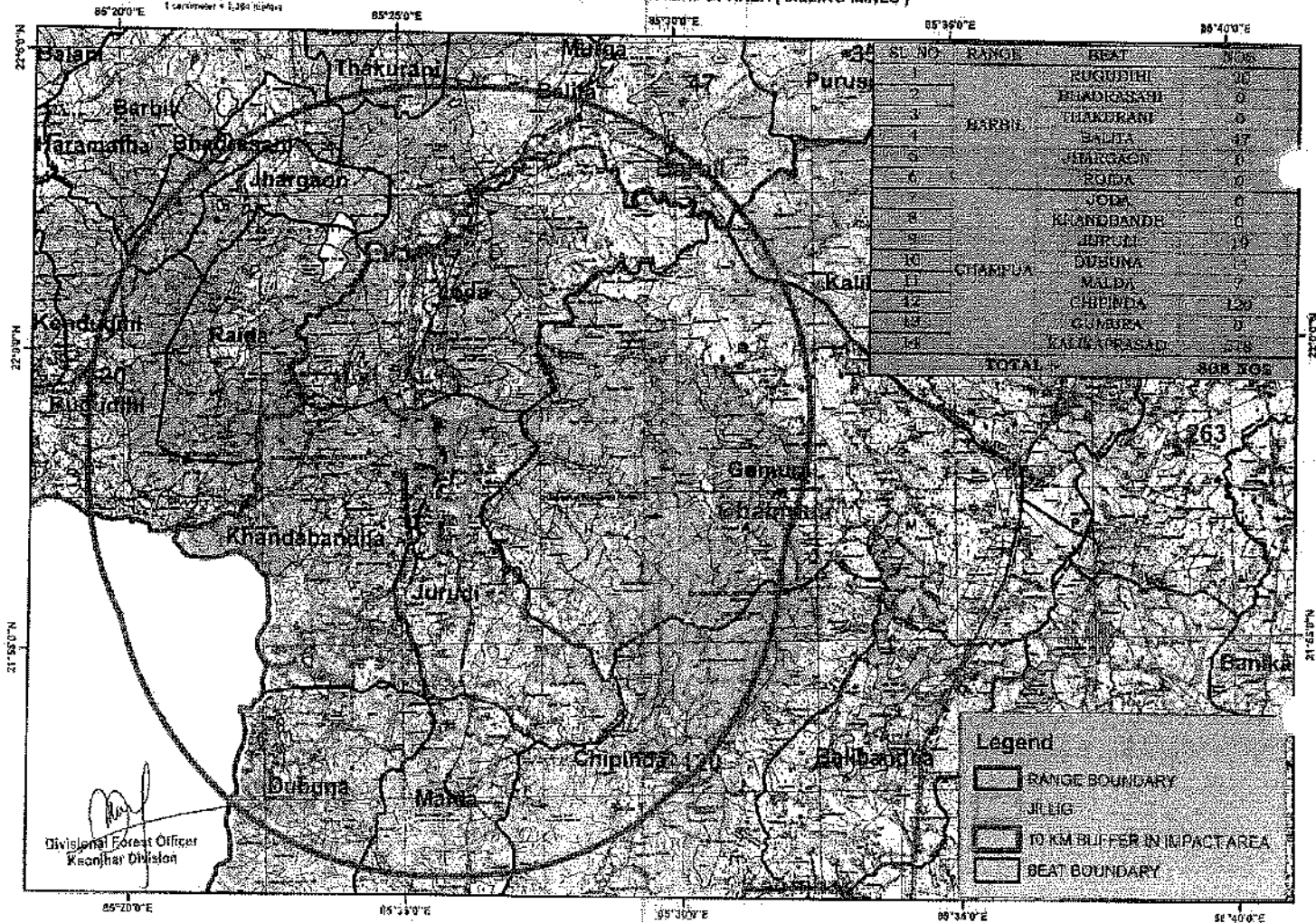
HOUSE DAMAGED IN IMPACT AREA (JILLING MINES)

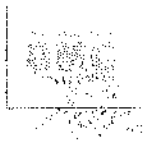
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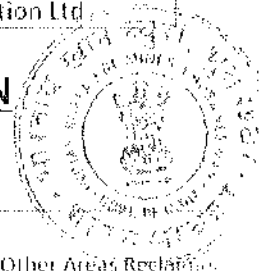
CROP DAMAGED IN IMPACT AREA (JILLING MINES)

PLATE VI





Chapter 6: PROGRESSIVE MINE CLOSURE PLAN



6.1: Status of Land:

Total Area Degraded					Total mined out area Reclaimed and Rehabilitated			Other Areas Reclaimed and Rehabilitated	
Total area under excavation in the lease		Area under Dumps(in hect)	Area under utility services(in hect)	Area under Stack yards(in hect)	Mined out Area Reclaimed but not rehabilitated (in hect)	Mined out Area fully Rehabilitated from Reclaimed area (in hect)	Area under Water Reservoir considered Rehabilitated (in hect)	Stabilized Waste dump Rehabilitated (in hect)	Mineral area under Green Belt (in hect)
Area under mining operation	Mined Out area in the lease								
107.798	23.03	22.393	58.73	7.6019	0	0	2.056	0	10.31

6.2: Progressive Reclamation and Rehabilitation Plan:

6.2.1:

Backfilling:

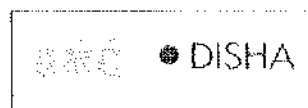
JILING GANGAIGORA		BF1
Quantity of Waste / Fill Material Available at Site (m ³)		3300000
Availability of Top Soil for Spreading (m ³)		0
Spread Area (m ²)		306900

APPAHATU & BEHERA QUARRY		BF2
Quantity of Waste / Fill Material Available at Site (m ³)		1231737.043
Availability of Top Soil for Spreading (m ³)		0
Spread Area (m ²)		153054.469

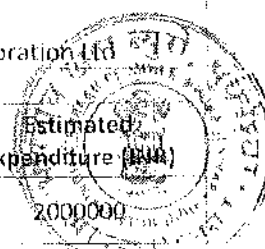
JAJANGA LANGALOTA		BF3
Quantity of Waste / Fill Material Available at Site (m ³)		3270382.785
Availability of Top Soil for Spreading (m ³)		0
Spread Area (m ²)		253620.43

Year wise Proposal

Signature



**Modification of Mining Plan & Progressive Mine Closure Plan
(2021 to 2025)**
Jilling Langalotta Iron Ore Mine Odisha Mining Corporation Ltd



Sl No	Year	Pit ID	Area (m ²)	Top RL	Bottom RL	Estimated Expenditure (Rs.)
1	2021-22	JILLING GANGAIGORA	41500	575	540	2000000
2	2022-23	JILLING GANGAIGORA	159947	500	485	2000000
3	2023-24	JILLING GANGAIGORA	143474	540	500	2000000
5	2023-24	APPAHATU & BEHERA QUARRY	80172.827	620	540	2000000
6	2024-25	JILLING GANGAIGORA	118098	560	540	2000000
7	2024-25	APPAHATU & BEHERA QUARRY	153054.469	620	565	2000000
8	2024-25	JAJANGA LANGALOTA	253620.43	530	430	2000000

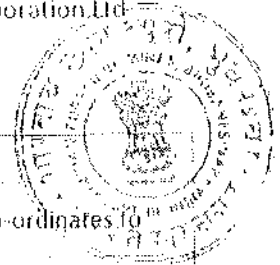
6.2.2: Water Reservoir:

Average Rainfall of The Area (mm)	1497.6
Proposed Area under Water Storage	0

6.2.2.1: Preparations for Ground Water Recharging: Not Applicable

6.2.2.1.1: Drilling Holes	
Year	Proposed no of Holes to be Drilled
2021-22	0
2022-23	0
2023-24	0
2024-25	0
6.2.2.1.2: Preparation of Course Gravel Bed: Not Applicable	
Year	Proposed Area of Bed (LxW)
2021-22	0
2022-23	0
2023-24	0
2024-25	0

Please specify, if others:



6.2.2.2: Protective measures (Please specify running meter)

6.2.2.2.1: Fencing: Not Applicable			
Year	Proposed Fencing Length (m)	Co-ordinates from	Co-ordinates to
2021-22	0	0	0
2022-23	0	0	0
2023-24	0	0	0
2024-25	0	0	0

Retaining wall			
Year	Proposed Wall Length (m)	Co-ordinates from	Co-ordinates to
2022-23	303	2429363 N 337920 L	2429839 N 338058 E
2022-23	370	2428895N 337961L	2428850N 338316E
2022-23	400	337343E 2430210N	337669E 2430018N
2022-23	300	2431259 N 337345 E	2431372 N 337138 E
2023-24	370	2428846 N 337908 E	2429019 N 338371 E
2023-24	303	2429363 N 337920 E	2429839 N 338058 E
2023-24	280	337345E 2430207N	337475E 2430443N

6.2.2.2.3: Garland Drains			
Year	Proposed Bund Length (m)	Co-ordinates from	Co-ordinates to
2022-23	303	2429363 N 337920 E	2429839 N 338058 E
2022-23	370	2428895N 337961E	2428850N 338316E
2022-23	400	337343E 2430210N	337669E 2430018N
2022-23	300	2431259 N 337345 E	2431372 N 337138 E
2023-24	370	2428846 N 337908 E	2429019 N 338371 E
2023-24	303	2429363 N 337920 E	2429839 N 338058 E
2023-24	280	337345E 2430207N	337475E 2430443N



DISHA

Modification of Mining Plan & Progressive Mine Closure Plan
(2021 to 2025)

Jiling Langalotta Iron Ore Mine

Odisha Mining Corporation Ltd

6.2.3: Green Belt Development:

6.2.3.1: Cumulative work done (up to end of previous block of five years)Not Applicable				
Sr. No	Total Expenditure Incurred up to Last Year (INR)	Area Covered (Ha)	Number of Plants	Survival Rate (%)
Not applicable				

6.2.3.2: Year Wise Proposal:						
Sr. No	Year	Green Belt Location (s)	Area Proposed to be Covered (Ha)	Number of Plants Proposed	Expected Survival Rate (%)	Estimated Expenditure (INR)
1	2021-22		Nil	Nil		
2	2022-23	2429363 N 337920 E	1.5	3750	80	200000
3	2023-24	2429363 N 337920 E	1.5	3750	80	200000
4	2024-25	2429363 N 337920 E	1.5	3750	80	200000

6.2.4: Use of shallow pits: Not Applicable

6.2.4.1: Cumulative work done (up to end of previous block of five years)				
Sr. No	Pit ID	Work Done	Area covered (m ²)	Total Expenditure Incurred (up to last five year block) (INR)
Not applicable				

6.2.4.2: Year Wise Proposal:									
Sr. No	Year	Pit ID	Total Area (Ha)	Area Proposed for Crops (Ha)	Suitable Crops	Area Proposed for Grass (Ha)	Total Proposed Expenditure (INR)	Location (s)	Remarks
Not applicable									

6.2.5: Pisciculture: Not Applicable

6.2.5.1: Total Expenditure Incurred as on Date (INR)

Nil

6.2.5.2: Cumulative work done as on Date:

Sr. No	Pit ID	Area (m ²)	Expenditure (INR)
		Not applicable	

6.2.5.3: Year Wise Proposal:

Sr. No	Year	Pit ID	Area (m ²)	Estimated Expenditure (INR)
			Not applicable	

6.2.5.4: Source of Water for Pisciculture

6.2.5.5: Whether the quality of water has been assessed & found to be suitable for Pisciculture

6.2.6: Recreational Facility: Not Applicable

6.2.6.1: Total Expenditure Incurred (up to last five year block) (INR)

6.2.6.2: Cumulative work

Sr. No	Pit ID	Area (m ²)	Expenditure (INR)
		Not applicable	

6.2.6.3: Year Wise Proposal:

Sr. No	Year	Type of Recreational Facility	Area Covered (Ha)	Location	Estimated Expenditure (INR)
			Not applicable		

6.2.7: Dump Area Stabilization & Development

Sl No	Year	Dump ID	No of Terraces	Average Height of Terraces (m)	Length of Toe Wall (m)	Length of Garland Drain (m)	Area Stabilized (Ha)	Method of Stabilization	Estimated Expenditure (INR)	No of Check Dams

1	2021-22						Nil	
2	2022-23	DUMP 04	1	10	303	303	1.5	Plantation
3	2023-24	DUMP 04	2	10	303	303	1.5	Plantation
4	2024-25	DUMP 04	2	10			1.5	Plantation

6.2.8: Other Form of Reclaiming the Area –Not Applicable

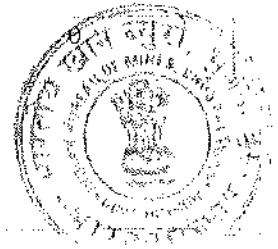
6.2.8.1: Cumulative work as on date		
Sr. No	Total Expenditure incurred as on Date (INR)	Work Done
	Not Applicable	

6.2.8.2: Year Wise Proposal:			
Sr. No	Year	Work Proposals	Estimated Expenditure (INR)
1	2021-22	0	0
2	2022-23	0	0
3	2023-24	0	0
4	2024-25	0	0

6.2.9: Topsoil Management:

6.2.9.1: Cumulative Work Done as on Date				
Sl. No.	Top Soil Generated (m ³)	Top Soil Utilized (m ³)	Topsoil Stored (m ³)	Total expenditure incurred as on date (₹)
	Not applicable			
6.2.9.2: Year Wise Proposal:				
Year	Topsoil Generated (m ³) (A)	Topsoil Utilized (m ³) (B)	Topsoil Stored (m ³) (A-B)	Estimated Expenditure (INR)
2021-22	0	0	0	0
2022-23	0	0	0	0
2023-24	0	0	0	0

2024-25	0	0	0
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6.2.10: Tailings Dam Management: Not Applicable

Year	Yearly generation of Tailing (m ³) (A)	Total capacity of Tailing Pond (m ³)	Measures Proposed for Periodic Desilting	Yearly Utilization of Tailing (m ³) (B)	Disposal of Tailing to Tailing Pond (m ³) (A-B)	Tailing Dam Design	Structural Stability Studies
2021-22	0	0	0	0	0	0	0
2022-23	0	0	0	0	0	0	0
2023-24	0	0	0	0	0	0	0
2024-25	0	0	0	0	0	0	0



सत्यमेव जयते

File No.: J-11015/959/2007-IA.II(M)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 07/05/2024



To,

M/s Odisha Mining Corporation Limited

Odisha Mining Corporation Limited OMC House, Post Box No.: 34, Bhubaneswar, Bhubaneswar,
 KHORDHA, ODISHA, Adjacent to Odisha Legislative Assembly, 751001
 envcl.omc@gmail.com

Subject:

Mining of Iron Ore in JillingLangalotta Iron Ore Mine of M/s Odisha Mining Corporation Limited with total excavation of 17.4385 Million TPA [Saleable Iron ore- 7.7723 Million TPA, Mineral rejects-2.2276 Million TPA, Waste: 7.4385 Million TPA, Topsoil: Nil] along with existing: 5 nos. with Total Capacity - 1400 TPH (Stationary Crushing Unit), 2 x 300 TPH, 2 x 200 TPH, 1 x 400 TPH, Existing: 3 nos. with Total Capacity - 150 TPH (Mobile Screening Unit), 1 x 150 TPH Mobile Screening Plant 1 x 50 TPH, Stationary Screening Plant, 1 x 100 TPH Mobile Screening Plant, New: 10 nos. with Total Capacity - 4550 TPH (Crushing Unit), 1x800 TPH, 3 x 600 TPH, 3 x 400 TPH, 1 x 300 TPH, 1 x 250 TPH, 1x 200 TPH, New: 4 nos. with Total Capacity - 1000 TPH (Portable Screening Units), 4 x 250 TPH in the mine lease area of 406.35 ha [Forest land: 342.602 ha + Non-Forest land: 63.748 ha] out of 456.037 ha (as per DGPS)/456.100 ha (as per RoR), located at Village(s) Jalahari, Jurudi, Banspani, Khuntapani, Bholebeda, Jajang, Baitarani Reserve Forest in Barbil Tehsil, Keonjhar District, Odisha - [Proposal No: IA/OR/MIN/440292/2023, IA-J11015/34/2021-IA-II(M), EIA Consultant: M/s. MECON Ltd] - Environmental Clearance (Auction mine) - reg.

Sir/Madam,

This is in reference to your application for IA/OR/MIN/440292/2023 dated 15.08.2023 for grant of environmental clearance to the project for proposed Mining of Iron Ore in JillingLangalotta Iron Ore Mine of M/s Odisha Mining Corporation Limited with total excavation of 17.4385 Million TPA [Saleable Iron ore- 7.7723 Million TPA, Mineral rejects-2.2276 Million TPA, Waste: 7.4385 Million TPA, Topsoil: Nil] along with existing: 5 nos. with Total Capacity - 1400 TPH (Stationary Crushing Unit), 2 x 300 TPH, 2 x 200 TPH, 1 x 400 TPH, Existing: 3 nos. with Total Capacity - 150 TPH (Mobile Screening Unit), 1 x 150 TPH Mobile Screening Plant 1 x 50 TPH, Stationary Screening Plant, 1 x 100 TPH Mobile Screening Plant, New: 10 nos. with Total Capacity - 4550 TPH (Crushing Unit), 1x800 TPH, 3 x 600 TPH, 3 x 400 TPH, 1 x 300 TPH, 1 x 250 TPH, 1x 200 TPH, New: 4 nos. with Total Capacity - 1000 TPH (Portable Screening Units), 4 x 250 TPH in the mine lease area of 406.35 ha [Forest land: 342.602 ha + Non-Forest land: 63.748 ha] out of 456.037 ha (as per DGPS)/456.100 ha (as per RoR), located at Village(s) Jalahari, Jurudi, Banspani, Khuntapani, Bholebeda, Jajang, Baitarani Reserve Forest in Barbil Tehsil, Keonjhar District, Odisha.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A00000R5433068N
(ii) File No.	J-11015/959/2007-IA.II(M)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vi) Sector	Non-Coal Mining
(vii) Name of Project	Expansion of Jilling Langalotta Iron Ore Mine
(ix) Location of Project (District, State)	KENDUJHAR, ODISHA
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	No

3. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" of the schedule of the EIA Notification, 2006 as the mine lease area is greater than 250 ha and appraised at the Central level.

4. The proposal was considered by the EAC in its 23rd & 26th meeting held on 5-7 December, 2023 and 31st January & 1st February, 2024. The EAC deliberated on the additional details submitted by the Project Proponent and the Consultant. The Project Proponent informed the EAC that there is no proposal to set up beneficiation plant. The Project Proponent also informed the EAC that till date about seven no. of garland drains have been constructed with a total length of 3.83 km. Another 953 m of garland drain is under construction as per approved mining plan for the FY 2023-24 around new Appahatu North & Appahatu South Dumps. Further, the Project Proponent informed the EAC that the existing garland drains renovated with adequate dimensions as follows; (i) Depth: 1500 mm, (ii) Top width: 2500 mm, (iii) Bottom width: 1500 mm and (iv) Masonry thickness: 300 mm. New garland drains are being constructed as per above dimensions.

The Project Proponent informed the EAC that the following mitigative measures has been proposed to be included in revised Site-Specific Wildlife Conservation Plan to address impact of linear barrier for smooth movement of elephants from one forest to another with a budget of Rs 100 Lakhs only after due approval of PCCF(WL) & CWLW, Odisha are as follows: (i) Enrichment by plantation: Planting of Bamboo (preferably sowing of seed bal method) and Sal, (ii) Deployment of Gajasathi a participatory approach, (iii) Trench fencing over 3 km to funnel elephant to adjoining forest patches, (iv) Distribution of Metal grain bin (1 Qts) capacity, (v) Training and create awareness among villagers/VSS members students of educational institutions/village level volunteers for wildlife conservation and protection, (vi) Installation of solar street light with EWS, (vii) Development of Meadows (Available Gochar lands Government vacant lands) in the frequent elephant movement area and (viii) EPA in terms of livelihood to forest fringe villagers. The Project Proponent also informed the EAC that the action taken report for the non-compliances was submitted to the Regional Office (RO). ADS was raised to the project proponent vide to submit the closure report and also to submit the current status of Stage-I FC for balance area of 22.697 ha of forest land. In response of the same the project proponent has uploaded the copy of certified ATR of CCR as received from Regional office of MoEF & CC at Bhubneshwar and copy of stage -I FC.

Further, the Project Proponent informed the EAC that as per last 6 months report from May, 2023 to Sept. 2023, iron content in ground water is well within the permissible limit. Drinking water treatment plant of 30.0 KLD has been installed within the mine lease area. The Project Proponent informed the EAC that no court case/litigation pending against the previous lessee w.r.t temporary working permit. The Project Proponent informed the EAC that the Baitarani River flows from S to N a short distance beyond the ML's eastern boundary. No external dumps are located on the ML's eastern side. Eastern rims of Jilling-Gangaigora and Jajang-Langalotta Quarries are well above the level of the Baitarani River. A thickly vegetated safety zone maintained between the eastern rims of the two quarries and the ML boundary. These features prevent contaminated water from flowing down directly into Baitarani River. The Project Proponent informed the EAC that fixed type water sprinklers over a length of approximately 2 km have been installed for dust suppression on haul roads. Mobile mist canons have been placed at the crushing units for effective dust suppression. About 3 no.s of Continuous Ambient Air Quality Monitoring Systems (CAAQMS) with real-time data transmission facility to the SPCB server have been installed at (i) near Mines Entry / Exit Gate, (ii) near Rly. Siding Area and (iii) near Appahatu Quarry. The Project Proponent showed the photographs of mobile water sprinklers, fixed type water sprinklers on haul road, mist

canons at crushing units and CAAQMS.

The EAC noted that that w.r.t liability of previous lessee in line with provisions of Sub-Rule (9) of Rule, 9 of MC Rules, 2016 amended in the year 2020 and the same is as follows "No authority shall reject grant of any rights, approvals, clearances, licenses and the like to the new lessee on account of past violations or outstanding dues of the previous lessee, which may be agitated before appropriate forums separately without prejudice to any rightful legal claims of the parties".

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 5-7 December, 2023, under the provisions of EIA Notification 2006 and its subsequent amendments therein, **recommended** the proposal for grant of Environmental Clearance to for mining of Iron Ore in JillingLangalotta Iron Ore Mine of M/s Odisha Mining Corporation Limited with total excavation of 17.4385 Million TPA [Saleable Iron ore- 7.7723 Million TPA, Mineral rejects-2.2276 Million TPA, Waste 7.4385 Million TPA, Topsoil: Nil] along with existing: 5 nos. with Total Capacity - 1400 TPH (Stationary Crushing Unit), 2 x 300 TPH, 2 x 200 TPH, 1 x 400 TPH, Existing: 3 nos. with Total Capacity - 150 TPH (Mobile Screening Unit), 1 x 150 TPH Mobile Screening Plant 1 x 50 TPH, Stationary Screening Plant, 1 x 100 TPH Mobile Screening Plant, New: 10 nos. with Total Capacity - 4550 TPH (Crushing Unit), 1x800 TPH, 3 x 600 TPH, 3 x 400 TPH, 1 x 300 TPH, 1 x 250 TPH, 1x 200 TPH, New: 4 nos. with Total Capacity - 1000 TPH (Portable Screening Units), 4 x 250 TPH in the mine lease area of 406.35 ha [Forest land: 342.602 ha + Non-Forest land: 63.748 ha] out of 456.037 ha (as per DGPS)/456.100 ha (as per RoR)] located at Village(s) Jalahari, Jurudi, Banspani, Khuntapani, Bholebeda, Jajang, Baitarani Reserve Forest in Barbil Tehsil, Keonjhar District, Odisha subject to the certain specific conditions in addition to the standard EC conditions applicable for non-coal mining projects.

5. The matter was examined in the EAC in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and the undersigned is directed to say that the Ministry of Environment Forest & Climate Change after accepting the recommendation of EAC (Non-Coal Mining) during its 23rd & 26th meeting held on 5-7 December, 2023 and 31st January & 1st February, 2024, hereby accords environmental clearance in favour of M/s Odisha Mining Corporation Limited for mining of Iron Ore in JillingLangalotta Iron Ore Mine with total excavation of 17.4385 Million TPA [Saleable Iron ore- 7.7723 Million TPA, Mineral rejects-2.2276 Million TPA, Waste 7.4385 Million TPA, Topsoil: Nil] along with existing: 5 nos. with Total Capacity - 1400 TPH (Stationary Crushing Unit), 2 x 300 TPH, 2 x 200 TPH, 1 x 400 TPH, Existing: 3 nos. with Total Capacity - 150 TPH (Mobile Screening Unit), 1 x 150 TPH Mobile Screening Plant 1 x 50 TPH, Stationary Screening Plant, 1 x 100 TPH Mobile Screening Plant, New: 10 nos. with Total Capacity - 4550 TPH (Crushing Unit), 1x800 TPH, 3 x 600 TPH, 3 x 400 TPH, 1 x 300 TPH, 1 x 250 TPH, 1x 200 TPH, New: 4 nos. with Total Capacity - 1000 TPH (Portable Screening Units), 4 x 250 TPH in the mine lease area of 406.35 ha [Forest land: 342.602 ha + Non-Forest land: 63.748 ha] out of 456.037 ha (as per DGPS)/456.100 ha (as per RoR)] located at Village(s) Jalahari, Jurudi, Banspani, Khuntapani, Bholebeda, Jajang, Baitarani Reserve Forest in Barbil Tehsil, Keonjhar District, Odisha subject to compliance of the terms & conditions and the environmental safeguards mentioned at Annexure 1.

6. The details of the project is at Annexure 2.

7. The Ministry reserves the right to stipulate additional conditions, if found necessary.

8. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.

9. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

10. General Instructions:

- The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which

one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC website where it is displayed.

- The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.
- The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.
- Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- The Regional Office of this MoEF&CC shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

11. This issue with an approval of the Competent Authority.

Copy To

- i. The Secretary, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- ii. The Chief Secretary, Government of Odisha, Secretariat, Bhubaneswar.
- iii. The Secretary, Department of Environment, Government of Odisha, Secretariat, Bhubaneswar.
- iv. The Secretary, Department of Mines and Geology, Government of Odisha, Secretariat, Bhubaneswar.
- v. The Secretary, Department of Forests, Government of Odisha, Secretariat, Bhubaneswar.
- vi. The Secretary, Department of Steel and Mines, Government of Odisha, Secretariat, Bhubaneswar.
- vii. The Member Secretary, Odisha Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012.
- viii. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office, A/3, Chandrasekharpur, Bhubaneswar – 751023.
- ix. The Chief Wildlife Warden, Prakurti Bhawan, 5 th floor, BDA Apartment, Nilakanthanagar, Nayapalli, Bhubaneswar-751012, Odisha.
- x. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
- xi. The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440001.
- xii. The Member Secretary, Central Ground Water Board, Ministry of Agriculture and Irrigation, 12/1 Jam Nagar House, Shahjahan road, New Delhi 110011.
- xiii. xiv. Guard File.
- xv. PARIVESH Portal.

Annexure 1

Specific EC Conditions for (Mining Of Minerals)

1. Validity

S. No	EC Conditions
1.1	The instant Environmental Clearance (EC) will be valid up to the mine lease period i.e., 10.01.2031.

2. Mining Activity In Mla

S. No	EC Conditions
2.1	Mining activity is restricted to the forest land (342.602 ha) for which the Stage II FC is available plus the non-forest land (63.748 ha).
2.2	No mining activity shall be carried out in the forest land for which the Stage-II FC is not available.

3. Fc Transfer

S. No	EC Conditions
3.1	The Project Proponent shall adhere to the Ministry's letter dated 07.07.2021 regarding Guidelines under Forest (Conservation) Act, 1980 for transfer of approvals granted under the Forest (Conservation) Act, 1980 to mining leases allotted to new lessee as per the provisions of the Mines and Minerals (Development and Regulation) Amendment Act, 2021.

4. Mineral Conservation

S. No	EC Conditions
4.1	The Project Proponent shall ensure that the low grade ore shall be effectively utilized.

5. Protection Of Water Bodies

S. No	EC Conditions
5.1	No water bodies shall be disturbed at any stage of mining activity. The Project Proponent needs to undertake adequate measures to prevent contaminated water meeting Baitarani river.

6. Wildlife Conservation Plan

S. No	EC Conditions
6.1	The Project Proponent should follow-up the implementation status on Site-Specific Wildlife Conservation Plan including the scientific plan for movement of elephants from one forest to the other forest area from the Forest Officials and the same shall be submitted to the Ministry's Regional Office in the six monthly compliance report.

7. Conservation Of Wildlife

S. No	EC Conditions
7.1	The Project Proponent needs to use modern equipment's such as Camera Traps for ensuring presence and movement of wild animals in the vicinity of the mine lease area as well as in study area in consultation with Wildlife Wing of Forest Department. Appropriate interventions shall be taken to minimise stress conditions for wild animals and to avoid Man-Animal conflict.

8. Garland Drains

S. No	EC Conditions
8.1	The Project Proponent needs to strengthen the garland drain. Regular maintenance of surface water management structures has to be carried out to prevent and control the water pollution and soil erosion. The Project Proponent shall take adequate measures to prevent the washout of fines during monsoon season.

9. Plantation Density

S. No	EC Conditions
9.1	The Project Proponent needs to undertake the gap plantation in vacant places to increase the density of the plantation.

10. Fugitive Dust Suppression

S. No	EC Conditions
10.1	The Project Proponent needs to make provision for permanent water sprinklers instead of mobile tankers all along the haul road. About, 10 nos. of fog canon/mist sprayer of atleast 40 m throw shall be installed at various locations in the mine lease area. Effective dust suppression system shall also be adopted at other parts of the mining lease to arrest the fugitive dust emission.

11. Monitoring

S. No	EC Conditions
11.1	The Project Proponent shall monitor the air quality, noise level, soil quality, water quality, water level and ground vibration at the edge of the mine, near the village and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Regional Office.

12. Dust Suppression

S. No	EC Conditions
12.1	The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, and other areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions. The dense plantation shall be carried out in the vicinity of the crusher. The Stack emission monitoring of the Crusher shall be carried out at periodic intervals.

13. Public Hearing (Ph) Concerns

S. No	EC Conditions
13.1	The budget of Rs. 1865.582 Lakhs to address the concerns raised by the public in the public consultation to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.

14. Implementation Of Emp

S. No	EC Conditions
14.1	The Project Proponent should adopt the proper mitigation measures as proposed under EMP with budgetary provision of Rs 44.77 Cr. The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Regional Office.

15. Single Use Plastic

S. No	EC Conditions
15.1	The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.

16. Emp

S. No	EC Conditions
16.1	The Project Proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non-compliance or infringement should be reported to the concerned authority.

17. Clean Energy

S. No	EC Conditions
17.1	Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years.

18. Groundwater

S. No	EC Conditions
18.1	NoC from the Central Ground Water Authority (CGWA)/ Concerned Local authority, as the case may be, shall be obtained before drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

19. Skill Development/employment

S. No	EC Conditions
19.1	The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly. The preference shall be given to the local people for the purpose of employment.

20. Regrassing

S. No	EC Conditions
20.1	The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Regional Office.

21. Carrying Capacity Study For Environmentally Sustainable Iron Ore Mining

S. No	EC Conditions
21.1	The Project Proponent needs to strictly adhere to the recommendations of Carrying Capacity Study for Environmentally Sustainable Iron Ore Mining Activities in Keonjhar, Sundargarh and Mayurbhanj Districts of Odisha State.

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
1.2	The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors before commencing the mining operations.

S. No	EC Conditions
1.3	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
1.4	The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
1.5	A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
1.6	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
1.7	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
1.8	The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred. PP needs to apply for transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
2.2	Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of

S. No	EC Conditions
	suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
3.2	Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
3.3	The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease including upstream and downstream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
3.4	Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
3.5	Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.
3.6	Industrial waste water (workshop and waste water from the mine) should be properly collected and

S. No	EC Conditions
	treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
3.7	The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

4. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
4.1	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
4.2	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
4.3	The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

5. Mining Plan

S. No	EC Conditions
5.1	The Project Proponent shall adhere to approved mining plan, inter alia, including, total excavation (quantum of mineral, waste, over burden, inter burden and top soil etc.); mining technology; lease area; scope of working (method of mining, overburden & dump management, O.B& dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life; etc.).
5.2	The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.

6. Land Reclamation

S. No	EC Conditions
6.1	The Overburden (O.B.), waste and topsoil generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB / waste dumps / topsoil dump like height, width and angle of slope shall be governed as per the approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The topsoil shall be used for land reclamation and plantation.
6.2	The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
6.3	Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
6.4	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

7. Transportation

S. No	EC Conditions
7.1	No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers. [If applicable in case of road transport].
7.2	The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression

S. No	EC Conditions
	arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

8. Green Belt

S. No	EC Conditions
8.1	The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

9.

S. No	EC Conditions
9.1	The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
9.2	The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

10. Public Hearing And Human Health Issues

S. No	EC Conditions
10.1	Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

11. Corporate Environment Responsibility (Cer)

S. No	EC Conditions
11.1	The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

12. Miscellaneous

S. No	EC Conditions
12.1	The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
12.2	The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
12.3	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.
12.4	A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
12.5	The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
12.6	In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
12.7	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
12.8	Concealing factual data failure to comply with any or submission of false/ fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
12.9	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme

S. No	EC Conditions
	Court of India/High Court and any other Court of Law relating to the subject matter.
12.10	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Additional EC Conditions

N/A

Annexure 2

The details of the project:

The details of the project as ascertained from the documents submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at Schedule no. 1(a) Mining of Minerals of the schedule of the EIA Notification, 2006 and falls under Category "A" as the mining lease area is greater than 250ha and appraised at the Central level.
- ii. The mine lease area is located between Latitude 21°56'37.5297"N to 21°08'53.4185"N and Longitude: 85°25'08.8832"E to 85°26'37.1370"E. The mine lease area falls under the Survey of India Toposheet No: 73F/8 and 73G/5 and falls in Seismic Zone-II.
- iii. The instant proposal was earlier considered in the 20thEAC (Non Coal Mining) meeting held during 21-22 September, 2023 wherein the EAC deferred the proposal for want of requisite information. The Project Proponent submitted the information on 17.11.2023 in Parivesh portal and accordingly the proposal was again considered in the 23rd EAC (Non-Coal Mining) meeting held during 5-7 December, 2023.

Based on observation of EAC in its EAC meeting held during 21-22 September, 2023 and compliance of observation of EAC are detailed below:

S. No	Observation of EAC in its meeting held during 21-22 September, 2023	Reply by the Project Proponent				
1	The Project Proponent needs to submit the action plan for strengthening the garland drains including their dimensions along	The Project Proponent has submitted that a total length of 3833 m of garland drains have been constructed along the retaining walls. The details of existing garland Drains in Jilling-Langalottamines are as follows: -				
		Sl. No	Location	Length (m)	Latitude (N)	Longitude (E)
		1	Jilling Dump No. 4	586	21°57'57.10	85°25'52.00
		2	Jilling Dump No. 6	353	21°57'58.00	85°26'08.60
		3	DalkoNalaJilling Side	1100	21°57'23.04	85°25'41.50
		4	DalkoNalaLangalotta Side	1300	21°57'22.20	85°35'42.10

	with the timeline.	5	Langalotta Vibro Fines Dump No. 4	250	21°57'19.50"	85°25'47.00"
		6	Jajang Rly. Siding Dump 6	64	21°56'41.00"	85°25'49.10"
		7	Appahatu Dump No.1	180	21°58'19.90"	85°25'29.70"
		<p>The Project Proponent also submitted that another 953 m of garland drains is under construction during FY 2023-24 around new Appahatu North & Appahatu South Dumps as proposed in the approved Mining Plan.</p> <p>Further, the Project Proponent has submitted that the existing garland drains shall be renovated with adequate dimensions as mentioned below.</p> <p>Depth : 1500 mm Top Width : 2500 mm Bottom Width : 1500 mm Masonry Thickness: 300 mm</p>				
2	The EAC was of the view that the linear barriers created for movement of elephants and habitat use needs to be properly addressed in terms of scientific management and a plan for movement of elephants from one forest to the other forest area shall	<p>The Project Proponent has submitted that the scientific plan for movement of elephants from one forest to the other forest area along with the budget has been prepared by DFO, Keonjhar Forest Division. The following activities are proposed from the Office of the Divisional Forest Officer, Keonjhar Division vide letter dated 30.10.2023 which are as follows: -</p> <ol style="list-style-type: none"> Anti-Depradation and Anti-Poaching Squads Deployment of one elephant tracker Habitat improvement works like gap planting with indigenous species deweeding over 200 ha. Soil and moisture conservation measures Construction of game tanks Creation of artificial salt licks and their maintenance. Fire prevention measures Immunization of livestock Measures to prevent casualties due to train accidents Corpus fund Biodiversity monitoring & 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 in both dry season and wet season for 10 years preferably using the GIS lab of PCCF (WL), Orissa. Eco-development measures in 10 VSS areas Awareness promotion Monitoring & evaluation <p>The Project Proponent also submitted the Elephant movement around Jilling-Langalotta Mines</p> <ol style="list-style-type: none"> 1 "Frequently Used Track" ~7 km W & NW of ML 1 "Frequently Used Track" ~3.5 km E & SE of ML on other side of R. Baitarani 				

be included in the conservation plan. Accordingly, the Project Proponent needs to submit the activities proposed under Wildlife Conservation Plan along with the budget.

iii. 1 "Rarely Used Track" ~5 kmN& NW of ML.

Further, the Project Proponent has submitted the implementation status of Wildlife Management Plan pertaining to JillingLangalota Iron Ore mines which are as follows:

Sl. No.	Item	Financial Outlay (Rs. In Lakhs)	Activities undertaken
1	90.00 ha of ANR plantation as per landuse plan	20	96.734 ha of plantations created in ML area
2	Fire prevention – fire watchers' wages, uniforms, equipment etc.	3.5	Fire watchers engaged during Feb. to June every year
3	Soil & moisture conservation (SMC) works	10	Various SMC works undertaken in ML area
4	Rain water harvesting arrangements	10	Arrangements made in township for roof top rain water harvesting. Arrangements also made in mined out areas
5	Garbage disposal	0	Door to door collection of MSW in township. MSW sorted. Biodegradable MSW vermi-composted
6	12 km of Photo-voltaic fencing	12	Barbed wire fencing done. OMC undertakes to install photo-voltaic fences around quarries.
7	Monitoring & evaluation	5	Implementation status of measures suggested in SSWLCP is being monitored periodically
8	Awareness and publicity	5	Being carried out from time to time
	TOTAL	65.5	

Details of plantation undertaken over 96.734 ha

Plantation in Green Belt: : 25.537 ha Plantation in vacant areas & avenue plantation : 7.128 ha Plantation on dumps & backfill areas : 34.069 ha ANR Plantations : 30,000 ha		
Details of year wise plantation:		
Year	No. of Saplings	Locations
2002 - 03	30000	ML Boundary, Behera Quarry, 55 Quarry, Along Nala
2003 - 04	32000	Safety Zone of Roads, Township, Magazine, Jilling Dump, Both Sides of PWD Road
2004 - 05	40000	Safety Zone of Roads, Township, Magazine, Jilling Dump, Both Sides of PWD Road, Rly. Siding
2005 - 06	26500	Jilling dump, Appahatu dump, Behera Quarry, Township, Beside Magazine, Rly. Siding, ML Boundary
2006 - 07	27500	Jilling dump, Railway buffer end, Plot no.187, Boundary line area, Appahatu, Boundary line near Pandiya, Plot 237. & 238 etc.
2007 - 08	25500	Jilling dump, Plot no.187/188, 5.5. Quarry (top & bottom), Buffer zone of railway, Behera Quarry etc.
2008 - 09	25000	Jilling dump, Bottom area of Jilling Shelter, Backside of Geology Deptt., Buffer zone of railway, Crushing plant Jilling, DalkoNala side etc.
2009 - 10	16000	Jilling dump, Bottom area of Jilling Shelter, Backside of Geology Deptt., Jilling Mines road, Boundary Line, Safety Zone Appahatu
2010 - 11	10500	Jilling dump, Back of Geology dept., Jilling mines road, Safety zone area, Appahatu, etc.
2011 - 12	47000	Safety Zone (Appahatu, Jajang, Jilling&Langalotta), Rly. Siding dump, DalkoNala Site, Jilling Dump, along roads, Near Water Treatment Plant, Plot

		No. 187, Appahatu Area near magazine etc.
2012 - 13	11730	Gap plantation & casualty replacement done in green belt, avenue plantation, waste dump reclaimed area and ANR Plantation.
2013 - 14	15000	
2014 - 15	16000	
2015 - 16	19500	
2016 - 17	20080	
2017 - 18	9800	
2018 - 19	13200	
2019 - 20	36350	

Check dams, retaining walls already constructed across the seasonal channels are as follows:

Sl No	Location	Latitude (N)	Longitude (E)	Length (m)	Width (m)	Height (m)
1	Jilling Dump No. 4	21°57'57.19"	85°25'52.00"	76	0.5	2.0
2	Jilling Dump No. 5	21°57'53.50"	85°25'52.10"	262	1.0	1.2
3	Jilling Dump Near OCU-2 dump	21°57'53.51"	85°25'52.12"	218	0.6	1.2
4	Jilling Dump near	21°57'58.00"	85°26'08.60"	353	0.3	1.7

			Gurubeda side No. 6					
	5	DalkoNala – Jilling Side	21°57'23. 04"	85°25'41. 50"	1100	0.6	1.1	
	6	DalkoNala – Langalotta Side	21°57'22. 20"	85°25'43. 10"	1300	0.6	1.1	
	7	Langalotta Vibro Fines Dump No. 4	21°57'19. 50"	85°25'47. 00"	250	0.6	1.8	
	8	Jajang Rly. Siding, Dump 5	21°56'56. 10"	85°25'37. 60"	1038	0.4	1.8	
	9	Jajang Rly. Siding, Dump 6	21°56'41. 00"	85°25'49. 10"	64	0.6	1.1	
	1 0	Appahatu Dump No. 01	21°58'19. 90"	85°25'29. 70"	180	0.6	1.1	
Details of Check Dams already constructed:								
	Sl. No	Location	Latitude (N)	Longitude (E)	Size (L x B x H in m)	Particulars of Constructio n		
	1	Near Joda gate on up side	21°58'02. 90"	85°25'53. 80"	L: 5 m; H: 1.0 m Top Width : 1.0 m Botto m Width : 1.5 m	Masonry with Spillway system & sedimentati on tank		
	2	Near Joda gate on down side	21°58'02. 85"	85°25'53. 78"	L: 3 m; H: 1.0 m Top Width			

				: 0.6 m Bottom Width : 0.8 m	
3	Near NSPL camp adjacent to DalkoN ala	21°57'20.60"	85°25'45.10"	L: 5 m; H: 1.5 m Top Width : 1.0 m Bottom Width : 1.5 m	Masonry with Spillway system & sedimentation tank

Details of Settling Pits already constructed:

Sl. No.	Location	Latitude (N)	Longitude (E)	Length (m)	Width (m)	Depth (m)
Jilling Dump (Gurubeda Site)						
1	Settling Pit - 1	21°57'53.30"	85°26'08.80"	5.3	5.3	2.0
2	Settling Pit - 2	21°57'55.70"	85°26'07.90"	5.0	4.0	1.5
3	Settling Pit - 3	21°57'57.90"	85°26'08.90"	6.0	4.0	1.6
Jilling Dump Near Joda Gate						
4	Settling Pit - 1	21°57'51.80"	85°22'50.70"	4.2	2.9	1.7
5	Settling Pit - 2	21°57'48.20"	85°25'50.10"	4.5	4.3	1.8
6	Settling Pit - 3	21°57'48.00"	85°25'52.90"	3.3	3.0	1.7
7	Settling Pit - 4	21°57'46.20"	85°25'49.80"	10.0	3.8	3.0
8	Langalotta Pit	21°57'18.30"	85°25'38.90"	12.0	4.0	3.0

3	The Project Proponent needs to submit the action taken report for the non-compliances identified by the Regional Office.	<p>The Project Proponent has submitted the action taken report for the non-compliances identified by the Regional Office as given below:</p> <p>-</p> <table border="1"> <thead> <tr> <th>Sl. No.</th><th>Non-Compliance</th><th>Compliance by Project Proponent</th></tr> </thead> <tbody> <tr> <td>a)</td><td>Greenbelt may be increased</td><td>Plantation in vacant places within ML and OB dumps has been done to increase the greenbelt. The Project Proponent also submitted the photographs of the plantation undertaken in vacant places within ML and OB dumps.</td></tr> <tr> <td>b)</td><td>Reclamation of backfilled area with vegetation may be initiated</td><td>At present, backfilling is going on for which plantation has not been started.</td></tr> <tr> <td>c)</td><td>Density of plantation may be increased</td><td> <p>In the year 2022-23 and in the current year 2023-24, plantation has been done through OFDC, A Govt. of Odisha Undertaking @ 1600 nos. seedlings per ha.</p> <p>The Project Proponent also submitted the joint verification report for plantation work done by Odisha Forest Development Corporation Ltd (OFDC).</p> </td></tr> </tbody> </table>	Sl. No.	Non-Compliance	Compliance by Project Proponent	a)	Greenbelt may be increased	Plantation in vacant places within ML and OB dumps has been done to increase the greenbelt. The Project Proponent also submitted the photographs of the plantation undertaken in vacant places within ML and OB dumps.	b)	Reclamation of backfilled area with vegetation may be initiated	At present, backfilling is going on for which plantation has not been started.	c)	Density of plantation may be increased	<p>In the year 2022-23 and in the current year 2023-24, plantation has been done through OFDC, A Govt. of Odisha Undertaking @ 1600 nos. seedlings per ha.</p> <p>The Project Proponent also submitted the joint verification report for plantation work done by Odisha Forest Development Corporation Ltd (OFDC).</p>
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4	The Project Proponent needs to submit the treatment methods to eliminate iron in groundwater so as to make it fit for drinking purpose.	<p>The Project Proponent has submitted that Ground water quality monitoring is being regularly done on monthly basis through Visiontek Consultancy Services Pvt. Ltd. - a MoEF&CC recognized Agency as well as NABL accredited lab. As per last 6 months' report from May, 2023 to Sept., 2023 iron content in ground water is well within the permissible limit. However, for overall treatment of water to be made fit for drinking, a Water Treatment Plant (WTP) of 30 KLD has been installed within the mines premises, which caters to the drinking purpose.</p> <p>The Project Proponent also submitted the report of ground water analysis for which the water samples collected on 16.05.2023, 14.06.2023, 18.07.2023, 14.08.2023 & 18.09.2023. Further, the Project Proponent has submitted the photographs of the installed WTP.</p>												
5	The Project Proponent needs to clarify	The Project Proponent has submitted that no Court case/litigation pending against the previous lessee. Temporary working permit has been transferred to OMC.												

	whether any court case/litigation pending against the previous lessee w.r.t temporary working permit and whether the same has been transferred to M/s Odisha Mining Corporation Ltd or not.	
6	The Project Proponent should submit measures taken to prevent contaminated water meeting Baitarani river.	<p>The Project Proponent has submitted that Baitarani River flows from N to S ~0.5 km, E (aerial distance) of ML area. DalkoNala flows through the centre of the lease (from W to E) to join the Baitarani river ~0.6 km east of the mine lease. Most natural drainage from the mine lease flows into DalkoNala. OMC has adopted the following measures to prevent contaminated water from flowing into the DalkoNala (and consequently into the Baitarani River) which are as follows: -</p> <ol style="list-style-type: none"> Safety Zone of adequate width is maintained all along the course of the DalkoNala within the Lease. The safety zone has been thickly vegetated. Jilling-Gangaigora Quarry located N of DalkoNala; Jajang-Langalotta Quarry located S of DalkoNala. Adequate separation is maintained between the DalkoNala and the quarry rims. Rims of both quarries are at higher levels than DalkoNala, which prevents surface run-offs, if any, from the quarries from flowing into DalkoNala. DalkoNala flows from S to N just beyond the western boundary of the ML area's southern half (before turning towards the east). The old external dump on the south-western side of the ML area has been stabilized and properly revegetated to minimize debris from flowing down towards the DalkoNala with storm water. In addition, there is a retaining wall and garland drain at the toe of the dump. The garland drain is routed through settling pits which are desilted regularly to ensure their efficacy.

		<p>iv. All existing dumps are located well away from DalkoNala. At the toe of the dumps, there are engineered retaining walls and garland drains. The garland drains are routed to guard ponds which act as settling pits.</p> <p>v. No water accumulated in the quarries is discharged. The accumulated water is utilized for meeting the mine's industrial water requirements.</p> <p>vi. The mine operates on a ZLD Basis. All industrial and domestic effluents are collected, treated and used for meeting the mine's industrial water requirements.</p> <p>Further, the Project Proponent has submitted that the Baitarani River flows from S to N a short distance beyond the ML's eastern boundary. No external dumps are located on the ML's eastern side. Eastern rims of Jilling-Gangaigora and Jajang-Langalotta Quarries are well above the level of the Baitarani River. A thickly vegetated Safety zone is also maintained between the eastern rims of the two quarries and the ML boundary. These features prevent contaminated water from flowing down directly into Baitarani River.</p>
7	The Project Proponent needs to submit the action plan for effective dust suppression system near haul roads and crushers with a provision for installation of online dust monitoring system.	<p>The Project Proponent has submitted that for dust suppression on haul roads, fixed type water sprinklers over a length of approximately 2 km have been installed. Mobile mist canons have been placed at the crushing units for effective dust suppression. Apart from above, to check the status of dust concentration in ambient air, 3 no.s of Continuous Ambient Air Quality Monitoring Systems (CAAQMS) with real-time data transmission facility to the SPCB server have been installed at (i) near Mines Entry / Exit Gate (ii) near Rly. Siding Area and (iii) near Appahatu Quarry. CAAQMS have online monitoring of PM10, PM2.5, CO, SO2 and NOx analysers. The Project Proponent also submitted the photographs of CAAQMS installed at three locations.</p>

- iv. The Project Proponent has submitted that the previous lessee obtained Environmental Clearance for a production capacity of 6.28 MTPA of Iron Ore vide EC letter J-11015/959/2007-IA-II (M) dated 7th June 2012.
- v. Details of Terms of Reference (ToR):

Date of application	File. No/ Proposal No	Consideration	Details	Date of accord
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13.04.2021	IA-J11015/ 34/2021-IA- II(M) IA/OR/MIN/ 207724/2021	13-16 July, 2021	Terms of Reference of M/s Odisha Mining Corporation for JillingLangalotta Iron Ore Mine [456.037 ha (as per DGPS)/456.100 ha (as per RoR)] with total excavation of 15.668 Million TPA [Saleable Iron ore- 9.239 Million TPA, Mineral rejects-0.761 Million TPA, Waste 5.668 Million TPA, Topsoil: Nil] with proposed 1 x 2000 TPH stationary multistage crushing & screening plant along with existing 1x300 TPH Stationary Crusher Plant (In pit plant), 1x300 TPH Stationary Crusher Plant (OCU1), 1 x 200 TPH Stationary Crusher Plant (OCU- 2), 1 x 300 TPH Stationary Crusher Plant (OCU-3), 1 x 200 TPH Stationary Crusher Plant (OCU- 5), 1 x 400 TPH Mobile Crusher Plant, 1 x 50 TPH Stationary Screening Plant, 1 x 150 TPH Mobile Screening Plant, 1 x 100 TPH Mobile Screening Plant, 5 x 150 TPH Mobile Screening Plant at Village(s) Jalahari, Jurudi, Banspani, Khuntapani, Bholebeda, Jajang, Baitarani Reserve	04.08.2021
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			Forest in Barbil Tehsil, Keonjhar District, Odisha	
26.10.2022	IA-J11015/ 34/2021-IA- II(M) IA/OR/MIN/ 292822/2022	9-11 November, 2022	Amendment in Terms of Reference (ToR) dated 04.08.2021 for M/s Odisha Mining Corporation Limited for Jilling Langalotta Iron Ore Mine [456.037 ha (as per DGPS)/456.100 ha (as per RoR)] with total excavation of 17.4385 Million TPA [Saleable Iron ore- 7.7723 Million TPA, Mineral rejects-2.2276 Million TPA, Waste- 7.4385 Million TPA, Topsoil: Nil] along with Existing: 5 nos. with Total Capacity - 1400 TPH (Stationary Crushing Unit), 2 x 300 TPH, 2 x 200 TPH, 1 x 400 TPH, Existing: 3 nos. with Total Capacity - 150 TPH (Mobile Screening Unit), 1 x 150 TPH Mobile Screening Plant 1 x 50 TPH, Stationary Screening Plant, 1 x 100 TPH Mobile Screening Plant, New: 10 nos. with Total Capacity - 4550 TPH (Crushing Unit), 1x800 TPH, 3 x 600 TPH, 3 x 400 TPH, 1 x 300 TPH, 1 x 250 TPH, 1x 200 TPH, New: 4 nos. with Total Capacity - 1000 TPH (Portable Screening Units), 4 x 250 TPH, located at Village(s) Jalahari, Jurudi,	28.11.2022

			Banspani, Khuntapani, Bholebeda, Jajang, Baitarani Reserve Forest in Barbil Tehsil, Keonjhar District, Odisha	
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vi. Details of Mine Lease:-

S. n o	Grant of PI/mine lease/ Order	Date of the grant	Name of the Mineral	Period of Grant	Granted by	Mine lease area in Ha
1	Reservation of Jilling-Langlotta Iron Ore vide No 299/ IV(AB)SM-01/ 2021/SM, Bhubansehwar	11.01.2021	Iron Ore	10 years	Govt of Odisha	456.037 ha (as per DGPS)/ 456.100 ha ha (as per RoR)
2	Letter of Intent vide 307/IV(AB) SM-01/2021/SM, Bhubansehwar	11.01.2021	Iron Ore	10 years	Govt of Odisha	456.037 ha (as per DGPS)/ 456.100 ha ha (as per RoR)
3	Order No 317/IV (AB) SM-01/ 2021/SM and Order is valid for a period of 2 years from the date of execution of the lease deed or till the date of getting fresh approvals, clearances, licenses, permits and the like whichever is earlier.	11.01.2021	Iron Ore	10 years	Govt of Odisha	456.037 ha (as per DGPS)/ 456.100 ha ha (as per RoR)
4	Grant of mining lease vide order no 338/SM	11.01.2021	Iron Ore	10 years	Govt of Odisha	456.037 ha (as per DGPS)/ 456.100 ha ha (as per RoR)

vii. Details of executed Mine leases

S.no	Date of grant of Lease execution	Period of Grant		Details
		From	To	
1	Date of entering into original lease deed.	11.01.2021	10.01.2031	Certificate No: IN-OD01560940427432T

viii. Land Use/Land Cover of the Mine Lease Area:

Private land	42.001 ha
Forest Land	392.289 ha (including 26.99 ha of forest land acquired by Daitari-Bansapani Rail link)
Non-Forest Govt. Land	21.747 ha
Total Mining lease area (MLA)	456.037 ha (as per DGPS Survey)/ 456.100 ha as per RoR
Private land for crusher, workshop & other infrastructure outside the MLA	All facilities within ML Area
Additional information(if any)	The Padapahar Jn. – Joda – Kendujhargarh - Jakhapura Railway Line passes through the ML area occupying 34.967 ha area. This includes 26.990 ha of Forest Land. Indian Railways had taken separate permission for construction of this Railway Line. OMC's existing operations are beyond this railway corridor and the status quo shall be maintained.

ix. Details of Mining Plan: -

Modification of Mining Plan along with Progressive Mine Closure Plan approved by Indian Bureau of Mines	Letter No.	Lr No. MPM/A/15-ORI/BHU/2021-22/1241
	Date	18.11.2021
	MLA	456.037 ha (as per DGPS)/ 456.100 ha ha (as per RoR)
	Mineral	Iron Ore (Major Mineral)
	Validity	Up to 2024 - 25
Additional information (if any)	On account of correction in the waste quantity, a corrigendum to the Mining Plan Approval Letter was issued by IBM vide letter No. ORI/IRON/KJR/MCDR-93/BBS dated 11.10.2022	
Mining Parameters	Quantitative Description	
Method of Mining	Fully Mechanised Open Cast Mining	
Drilling/Blasting	In Jilling-Langalotta, Jilling-Gangaigora and Appahatu quarries 13 m and 11 m deep boreholes respectively will be drilled using 115 - 150 mm dia DTH drills. These will be filled with explosives and blasted. The powder factor has been estimated to be 12 t/kg. The explosives consumption at the 6.28 MTPA stage ~875 t/yr which is expected to increase to 1306 t/yr at the 10 MTPA stage.	
Bench Height	10 m	
Bench Width	10 - 15 m	
Individual bench slope	80° - 85°	
Overall pit slope	45°	
Life of mine	8 years incl. present plan period. May be revised on basis if reserves are updated on basis of further detailed exploration	
RoM output size	10.0 MTPA	

Transportation details	At least 70% of the production will be despatched by railway wagons from private siding located within ML area. Max. 30% of production will be despatched by road.
Dumpers capacity	28 nos. 60 t capacity + 40 nos. 80 t capacity
OB/Waste	About 11.59 Mm3 overburden will be generated and 1.74 Mm3 will be dumped in existing active external OB dump within ML. About 0.528 Mm3 will be dumped in 2 new external OB dump within mine lease. Balance 9.32 Mm3 will be used for backfilling exhausted quarries. All mineral rejects, generated during the residual mine life to be blended with high quality iron ore & sold. Accumulated stock of mineral rejects, presently dumped in 2 nos. external dumps to be re-handled and sold off with / without blending. Any top soil to be generated shall be concurrently used in plantation.
Additional information (if any)	One of the existing open cast quarries (out of the four) exhausted. These will be backfilled.

x. Water requirement:

Total water requirement	1166 m ³ /day	Fresh water	916 m ³ /day
		Treated water	250 m ³ /day
Source	Ground water and Surface water		
Permission	No Objection Certificate has been obtained from CGWA vide letter no. CGWA/NOC/MIN/REN/1/2023/7964 dated 22-06-2023 for abstraction of fresh water of 480 m ³ /day and is valid up to the period 30.03.2024.		
Additional information (if any)	In future, about 916 m ³ /day of fresh water is required, 436 m ³ /day shall be drawn from DalkoNala which flows through the ML area. OMC is submitting an application to the Department of Water Resources, Govt. of Odisha for drawal of water from DalkoNala. The balance 480 m ³ /day (only for potable use) shall be drawn from bore-wells.		

xi. Nearest village / town/ highway/railway station / water bodies/monument:

Particulars	Particular's Name	Distance & Directions
Village	Jalahari Jurudi	Part of Village located within NW part of ML area Adjacent to M.L. area on West
Town	Joda	~2.5 km N
Highway	Expressway No. 2 NH-215	Expressway No. 2 passes through ML area NH-520: ~6.8 Km N
Interstate Boundary	Odisha-Jharkhand	~15.2 km, NE
Railway Station/line	Jalhari SE-Rly.'s Padapahar Jn.– Banspani – Keonjhar – Jakhapura Jn. B.G. Main Line passes through ML	~0.7 km W of ML
Water body	DalkoNala	Flows from W to E through approx. Middle of ML area
	Baitarani River	~0.5 km, E

Monument	None within 15 km
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xii. Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/ Environmental Sensitivity Zone	Yes /No	Details of Certificate/letter/Remarks
Forest Land	Yes	An area of 392.289 ha of forest land lies within mine lease area. Stage II FC obtained vide Lr No F.No-8-49/98FC(pt) dated 8 th October 2014 for an area of 342.602 ha of forest land. An application for diversion of balance area of 22.697 ha of forest land has been submitted vide proposal no. FP/OR/MIN/142115/2021 dated 08.05.2021. Compliance to the ADS sought by MoEFCC during scrutiny of Stage-I FC compliance is under recommendation process by State Forest Dept. Net Present Value (NPV) of the Forest amounting to Rs. 27,71,46,750/- has been paid.
National park	No	Nil within 10 km radius
Wildlife Sanctuary	No	
Eco-Sensitive Zone(ESZ)/Eco-Sensitive Area(ESA)	No	
Wildlife corridor, migration route etc.	No	Karo-Karampada Elephant corridor: ~18 km, NW
Schedule-I Species	Yes	Indian Elephant, Sloth-bear & Mouse Deer as per the list authenticated by DFO Keonjhar Division.
Wildlife Conservation Plan	Yes	Site-Specific Conservation Plan has been prepared and approved by the PCCF (WL) vide letter No.10895 dt.15.12.2010. Total financial out lay: Rs.412.00 lakhs.

xiii. Green belt/plantation details:

Proposed area for green belt/plantation	183.718 ha at Conceptual Stage
Budget for green plant& plantation till the end of life of mine.	Rs 4,54,50,000/- (Rupees Four Crore Fifty Four Lakhs Fifty Thousand Only)
Budget for nursery	Nil as plantation will be outsourced to Odisha State Forest Development Corporation (a Govt. of Odisha entity) who has their own nurseries.
7.5 m barrier & non-mineralized zone	83.0191 ha (40.696 ha over external dumps + 39.5539 ha mineral storage area + 2.7692 ha mineral processing area)

50 m safety zone of nallah, roads, electric lines	Included in above
500 m safety zones of nearest habitation villages	-
Additional information (if any)	Plantations over an area of 1.91 ha of exhausted quarry benches & backfilled areas

xiv. Baseline details:

Baseline Data (Air / Water / Noise / Soil / Ground water table/ others)			
Period of baseline data collection	01-10-2021 to 31-12-2021		
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Post-Monsoon Season		
Predominant Wind direction (From)	West		
Ambient Air Quality (no. of locations) and results	No. of Location	Parameters	Results
	9	PM10	44.0 to 95.0 $\mu\text{g}/\text{m}^3$
		PM2.5	27.0 to 55.0 $\mu\text{g}/\text{m}^3$
		SO2	4.0 to 10.2 $\mu\text{g}/\text{m}^3$
		NO2	10.3 to 22.0 $\mu\text{g}/\text{m}^3$
		CO	0.087 to 1.654 mg/m^3
Noise level (no. of locations) and results	No. of Location	Parameters	Results
	08	During Day Time [Leq dB(A)]	38.1 to 56.4
		During Night Time [Leq dB(A)]	37.1 to 45.8
Water Quality (no. of locations) and results	Ground water quality		
	No. of Location	Parameters	Results
	06	pH	6.71 to 7.08
		TDS (mg/l)	54 to 306
		Fluoride (mg/l)	0.1 to 0.24
		Chloride (mg/l)	13.5 to 61.7
		Fe (mg/l)	0.05 to 1.96
	Surface Water Quality		
	No. of Location	Parameters	Results
	06	pH	6.94 to 7.26
		DO (mg/l)	5.6 to 6.8
		BOD (mg/l)	2.0 to 3.0
		Total Coliform (MPN/100 ml)	1000 – 1700
Soil Quality (no. of locations) and results	No. of Location	Parameters	Results
	06	pH	5.67 to 7.62
		Electrical Conductivity ($\mu\text{S}/\text{cm}$)	49.7 to 254
		Organic Matter (%)	0.84 to 5.91

		Available Nitrogen (kg/ha)	50 to 188
		Available Phosphorus (kg/ha)	0.2 to 3.1
		Available Potassium (kg/ha)	98 to 476
Traffic study (no. of locations) and results	The maximum daily traffic on this road as monitored in December, 2021 was 12697 PCUs (see Table 3.53.2 in Chapter 3). It is expected that expansion of the mine will lead to increase in vehicular traffic by ~1140 PCUs per day (1 truck = 3 PCUs). Thus the resultant vehicular traffic (~13,840 PCUs/day) will remain much below the maximum design service volume. The maximum daily traffic on this road as monitored in December, 2021 was 12697 PCUs. It is expected that expansion of the mine will lead to increase in vehicular traffic by ~1140 PCUs per day (1 truck = 3 PCUs). Thus the resultant vehicular traffic (~13,840 PCUs/day) will remain much below the maximum design service volume.		

xv. Public Hearing (PH) Details:

Advertisement for PH with date	<ul style="list-style-type: none"> ❖ English daily newspaper: "The New Indian Express", Bhubaneswar edition dated 06 April, 2023 ❖ Odiya daily newspaper: "The Pragatvadi", Bhubaneswar edition dated 06 April, 2023
Date of PH	09 th May, 2023
Venue	Jalahari Mouza (Khata No. 34, Plot Nos. 253, 254 & 253/431), Barbil Tehsil, Keonjhar District
Chaired by	Shri Jadumani Mahala, OAS, (SAG), Addl. District Magistrate (Revenue), Keonjhar
Main issues raised during PH	<ul style="list-style-type: none"> a) Employment b) Supply of clean drinking water c) Improvement in education facilities and infrastructure d) Improvement in health care delivery systems e) Air pollution and diseases due to air pollution f) Poor conditions of roads g) Need for support to Self Help Groups (SHGs) h) Garbage disposal
Budget proposed for addressing issues raised during PH	Rs. 1865.582 Lakhs (To be spent over 3 years)
Additional information (if any)	Meeting attended by 482 persons including 328 persons from the Core Zone Villages. 39 persons (37 from the Core Zone villages). 33 written representations also have been received.

xvi. Details of CTE, CTO, Certified Compliance Report and Past production details:-

Consent to Establish (CTE)	Odisha State Pollution Control Board granted the Consent to Establish vide order dated 09.08.2018 in favour of M/s Essel Mining and Industries Limited.																																																																																																																		
Consent to Operate (CTO)	Odisha State Pollution Control Board granted the Consent to Operate vide order dated 31.03.2022 for production of Iron Ore (ROM) 6.28 MTPA and the consent order is valid for the period 01.04.2022 to 31.03.2023 in favour of M/s OMC Ltd.																																																																																																																		
Certified Compliance Report (CCR)	Certified Compliance report issued by the Regional Office, MoEF&CC vide F.No: 101-420/23/EPE dated 09.08.2023 for the EC dated 07.06.2012. Site visit was conducted on 07.07.2023.																																																																																																																		
Past production	<p>Certified production details issued by the Dy. Director of Mines vide Lr.Memo No: 2265/Mines, dated 18.05.2021 for the period 1994-95 to 2022-23.</p> <table border="1"> <thead> <tr> <th>Year of Production</th><th>EC sanctioned capacity (t)</th><th>Actual Production (t)</th><th>Excess Production beyond the EC sanctioned capacity</th></tr> </thead> <tbody> <tr><td>1993-94</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>1994-95</td><td>-</td><td>442127</td><td>-</td></tr> <tr><td>1995-96</td><td>-</td><td>555942</td><td>-</td></tr> <tr><td>1996-97</td><td>-</td><td>622305</td><td>-</td></tr> <tr><td>1997-98</td><td>-</td><td>922181</td><td>-</td></tr> <tr><td>1998-99</td><td>-</td><td>934156</td><td>-</td></tr> <tr><td>1999-00</td><td>-</td><td>819426</td><td>-</td></tr> <tr><td>2000 - 01</td><td>-</td><td>1277927</td><td>-</td></tr> <tr><td>2001 - 02</td><td>-</td><td>1613107</td><td>-</td></tr> <tr><td>2002 - 03</td><td>-</td><td>1967094</td><td>-</td></tr> <tr><td>2003 - 04</td><td>-</td><td>2054898</td><td>-</td></tr> <tr><td>2004 - 05</td><td>-</td><td>3378059</td><td>-</td></tr> <tr><td>2005 - 06</td><td>4200000</td><td>3856454</td><td>-</td></tr> <tr><td>2006 - 07</td><td>4200000</td><td>3460258</td><td>-</td></tr> <tr><td>2007 - 08</td><td>4200000</td><td>3997499</td><td>-</td></tr> <tr><td>2008 - 09</td><td>4200000</td><td>4599848</td><td>399848</td></tr> <tr><td>2009 - 10</td><td>4200000</td><td>4224984</td><td>24984</td></tr> <tr><td>2010 - 11</td><td>4200000</td><td>2947756</td><td>0</td></tr> <tr><td>2011 - 12</td><td>4200000</td><td>172558</td><td>0</td></tr> <tr><td>2012 - 13</td><td>6280000</td><td>2306742</td><td>0</td></tr> <tr><td>2013 - 14</td><td>6280000</td><td>2683497</td><td>0</td></tr> <tr><td>2014 - 15</td><td>6280000</td><td>0</td><td>0</td></tr> <tr><td>2015 - 16</td><td>6280000</td><td>0</td><td>0</td></tr> <tr><td>2016 - 17</td><td>6280000</td><td>0</td><td>0</td></tr> <tr><td>2017- 18</td><td>6280000</td><td>447629</td><td>0</td></tr> <tr><td>2018- 19</td><td>6280000</td><td>6271381</td><td>0</td></tr> <tr><td>2019 - 20</td><td>6280000</td><td>6268396</td><td>0</td></tr> </tbody> </table>			Year of Production	EC sanctioned capacity (t)	Actual Production (t)	Excess Production beyond the EC sanctioned capacity	1993-94	-	-	-	1994-95	-	442127	-	1995-96	-	555942	-	1996-97	-	622305	-	1997-98	-	922181	-	1998-99	-	934156	-	1999-00	-	819426	-	2000 - 01	-	1277927	-	2001 - 02	-	1613107	-	2002 - 03	-	1967094	-	2003 - 04	-	2054898	-	2004 - 05	-	3378059	-	2005 - 06	4200000	3856454	-	2006 - 07	4200000	3460258	-	2007 - 08	4200000	3997499	-	2008 - 09	4200000	4599848	399848	2009 - 10	4200000	4224984	24984	2010 - 11	4200000	2947756	0	2011 - 12	4200000	172558	0	2012 - 13	6280000	2306742	0	2013 - 14	6280000	2683497	0	2014 - 15	6280000	0	0	2015 - 16	6280000	0	0	2016 - 17	6280000	0	0	2017- 18	6280000	447629	0	2018- 19	6280000	6271381	0	2019 - 20	6280000	6268396	0
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	2021 - 22	6280000	5653000	0
	2022 - 23	6280000	6280000	0

Compliance of Hon'ble Supreme Court order dated 02.08.2017

A request letter was submitted by OMC to Jt. Director of Mines, Joda, Dept. of Steel & Mines with a request to duly authenticate the production figures since inception of mine and to provide the details of demand served to the ex-lessee, if any, for the Ores/Minerals raised in excess of the approved quantity with respect to EC for violation of EP Act, 1986 and violation of Mining Plan and CTO pertaining to Jilling-Langalotta Iron Ore Mining Project. In response to the above, Joint Director Mines, Joda, District Keonjhar vide letter dated 30.12.2021 has provided the certificate regarding payment towards compensation for excess production made by Ex-lessee.

Details of Demand Notices and Status-Common Cause Judgement

S.No	Details of Violation	Demand Notice	Amount
1	EC	Demand Notice No. 4040/Mines dt.02.09.2017	Rs.641,2432,386/-
2	FC	Demand Notice No.6375/Mines, dt. 26. 12.2017	Rs.1056,05,98,961/-
3	MP/CTO	Demand Notice No.3862/Mines, dt. 19.09.2018	Rs. 128,12,05,207/-

As per records available, M/s. Essel Mining & Industries Ltd, had deposited a total of Rs. 1825,87,36,554/- towards the compensation amount in the designated bank account as directed by the Hon'ble Supreme Court vide order W.P. (C) No. 114/2014 (Common Cause) dated 02.08.2017. Further, OMC started operating Jilling-Langalotta Mine with effect from 28-02-2021. Since then, no Environment & Forest related violation has been reported in respect of Jilling-Langalotta Iron Ore Mines.

Project Proponent has submitted the Certificate from the Office of the Joint Director Mines Joda, Dist; Keonjhar vide No. 7304/Mines, dated 30.12.2021 certifying that the present lessee M/s Odisha Mining Corporation Limited is confined the mining activity within the granted and executed leasehold area.

	Project Proponent also submitted the Affidavit in a non-judicial stamp paper of Rs 100 bearing no. M 054791 dated 09.07.2021 stating that the M/s OMC shall comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated 02.08.2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India and Others before grant of ToR/EC pertaining to Jilling-Langalota Iron Ore mining project.
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xvii. Rehabilitation & Resettlement (R&R):

R & R details	Present proposal does not involve any land acquisition. There are some patches of private land within the ML area but these will not be acquired. Thus the project does not involve any R & R of land oustees.
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xviii. Court case details:

Court Case	The Project Proponent submitted they do not have any litigation and also not received any court notice so far in respect of Jilling-Langalotta Mines after allotment of the mine to OMC.
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xix. Affidavit/Undertaking details:

Project Proponent submitted an Undertaking vide letter dated 09.08.2023	The Project Proponent has submitted an undertaking stating that the prescribed Terms of Reference has been complied while conducting the EIA Studies. The contents (information and data) as given by the Consultant in the EIA/EMP report are factually correct with full knowledge.
Consultant submitted an Undertaking vide letter dated 10.08.2023	The EIA/EMP report has been prepared as per ToR prescribed by MoEF&CC vide ToR letter dated 04.08.2021 and amended ToR letter dated 28.11.2022 based on baseline environmental data monitored by Environmental Engineering Laboratory, MECON Limited (CPCB recognized Laboratory) during Post-Monsoon Season 2021 and ToR prescribed for above mentioned project has been complied while conducting the EIA-EMP studies and the data submitted is factually correct.

xx. Details of the Environmental Management Plan (EMP):

Activities	Recurring cost (Lakhs Rs./yr)	Capital cost (Lakhs Rs.)
Pollution control	45	423 ^a
Pollution monitoring (laboratory)& CAAQMS	42 ^b	400
Occupational safety	50 ^c	20 ^d
Green belt & plantation at safety zone	-	454.5 ^e
Net Present Value(NPV) of Forest	-	2771.47
Compensatory Afforestation	-	61.995
Wildlife Conservation	6.55 ^g	346.50 ^f
Socio-economic welfare measures in	57.51 ^h	-

nearby villages (CSR budget)		
Budget for addressing Public Hearing commitments (erstwhile known as CER)	-	1865.58 ⁱ
Total	201.06	~6343.045
Note: <i>a =Surface drainage (garland drains, settlement pits, retaining wall etc.) + dust suppression system.</i> <i>b =Cost for EMC (Environmental monitoring work is outsourced to accredited labs)& AMC of CAAQMS installed</i> <i>c =Cost towards routine medical examinations, training & awareness</i> <i>d =Cost of safety appliances procurement</i> <i>e =On Basis of costs prevalling in 2022 – 23.</i> <i>f = To be deposited with Divisional Forest Officer</i> <i>g = Rs. 65.5 Lakhs to be spent over 10 years</i> <i>h = Budget for 2022-23. Likely to be revised every year.</i> <i>i = This money will be spent over a period of three years</i>		

xxi. Details of project cost and employment:

Particulars	(Rs. In Crore)
Total cost of EMP (Capital Cost of EMP)	EMP Capital Cost: Rs.44.77 Crores
Project Cost	Rs.431 Crores
Employment	488 Nos.

Signature Not Verified

Digitally Signed by: Mr Pankaj Verma
Member Secretary, MoEFCC (EC)

Date: 07/05/2024

