



STATE FOREST HEADQUARTERS
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS & HoFF, ODISHA
ARANYA BHAWAN, CHANDRASEKHARPUR, BHUBANESWAR-751023
E-mail: nodal.pccfhoff@odisha.gov.in

No. **5845** /9F (MG) 89/2015
Dated, Bhubaneswar the **21st** March'2022

From

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

To

The Assistant Inspector General of Forests (FC)
Government of India, MoEF& CC (FC Division)
Indira Paryavaran Bhawan
Aliganj, Jorbagh Road, New Delhi-110003

Sub: Diversion of balance forest land of 401.7824 ha including 7.2807 of safety zone out of total forest land of 519.7472 ha within total Mining Lease area of 618.576 ha for Iron Ore Mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period-Stage-I Compliance regarding.

Ref:- GoI, MoEF& CC, New Delhi, Letter F. No. 8-27/2016-FC dated 05.04.2019.

Sir,

In reference to the above mentioned subject, I wish to inform that Government of India, Ministry of Environment, Forest & Climate Change, New Delhi have accorded Stage-I approval vide their Letter F. No. 8-27/2016-FC dated 05.04.2019 for diversion of balance forest land of 401.7824 ha including 7.2807 of safety zone out of total forest land of 519.7472 ha within total Mining Lease area of 618.576ha for Iron Ore Mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period subject to fulfilment of thirty five (35) nos of conditions stipulated therein. The User Agency has complied all the conditions imposed by Govt. of India, MoEF& CC, New Delhi as well as six (6) nos of additional conditions imposed by the State Government. The point wise compliance basing on the reports of the DFO, Keonjhar Division and RCCF, Rourkela Circle are as follows:-

i. Legal status of the diverted forest land shall remain unchanged

In compliance to the above, the user agency has furnished an undertaking duly countersigned by the DFO Keonjhar Division that the legal status of forest land proposed for diversion shall remain unchanged which is enclosed at **Sl.No. 1 of Annexure-1.**

- ii. *Compensatory afforestation shall be raised over the non-forest land equal in extent to the forest land being diverted within three years of Stage-II Clearance and maintained thereafter by the State Forest Department at the cost of the User Agency and at least 1000 plants per hectare shall be planted over identified non-forest land. 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 to the above, the RCCF Rourkela Circle reported that the compensatory afforestation scheme has been prepared by DFO, Kalahandi (S) Division over an area of 401.7824 ha of Non-Forest Govt. land identified in village Khamarpadar under Thuamul Rampur Tahasil equal in extent to the forest area proposed for diversion which has been approved by the PCCF (FD & Nodal Officer, FC Act) at the current wage rate of Rs.315/- per man day with a total financial outlay of Rs 17,38,13,700/- for plantation of 4,28,872 nos. of plants to be raised by the State Forest Department within three years of grant of stage-II forest clearance including maintenance period of ten years. Since the number of saplings approved in the CA scheme are more than the stipulated norm of 1000 plants/ha, planting of balance saplings in other forest areas may not be required. The copy of the approved CA scheme along with the financial outlay is enclosed as **Annexure-II series**. The User Agency has deposited Rs.17,38,13,700/-, part payment of Rs.17,38,57,100/- through RTGS vide UTR No.UBINJ22045024404 dated 14.02.2022 in ORISSA CAMPA account No.150825813031946 of Union Bank of India, Lodhi Complex Branch, New Delhi and copy of RTGS receipt in support of proof of the deposit is enclosed as **Annexure-XIV**.

- iii. *25% of CA cost will be deposited extra by the user agency for soil and moisture conservation (SMC) activities on the CA land;*

In compliance to the above, the RCCF Rourkela Circle reported that the CA scheme over 401.7824 ha has been approved with a total financial outlay of Rs 17,38,13,700/- including Rs 2,71,11,195.59 towards cost of soil moisture conservation (SMC) activities which is 24.98 % or Say 25% of total plantation cost of Rs 10,85,16,782.00 approved by the PCCF (FD & Nodal Officer, FC Act) excluding cost of additional escalation cost (20%) and chain link fencing. The details are given as under for clarity.

Sl. No	Plantation Proposal	*Cost of plantation in Rs	Cost of SMC in Rs.
1	219.1804 ha of Bald Hill plantation	94269571.00	25131224.66
2	58.859 ha of ANR with 800 plants per ha	6850635.00	741623.40
3	77.7430 ha of ANR with 400 plants per ha	5833829.00	832627.53
4	46.00 ha of ANR without Gap.	1562747.00	405720.00
Total		10,85,16,782.00	2,71,11,195.59
*Does not include the cost towards Angle Iron & Chain link mesh fencing and escalation @20%.			

- iv. Out of 401.7824 ha, user agency is allowed to use only 191.7762 ha forest land. Balance forest land shall be retained as green cover at the cost of user agency.*

In compliance to the above, the RCCF Rourkela Circle reported that 210.0062 ha (401.7824 ha – 191.7762 ha) of forest land shall be retained as green cover within Gandhamardan Block-A Iron Ore Mines and a scheme has been approved by RCCF, Rourkela Circle with a total financial outlay of Rs.85,61,400/- at the wage rate of Rs.315/- per man day to be retained as green cover. The copies of the letter of approval and approved scheme are enclosed vide **Annexure-III**. The user agency has furnished an undertaking at **Sl. No. 2 of Annexure-I** duly countersigned by the DFO Keonjhar Division to implement the scheme as per the approved cost.

- v. State Government shall submit a revised approved mining plan with production capacity of 2.5 MTPA as envisaged in the subcommittee report prior to Stage-II.*

In compliance to the above, the RCCF Rourkela Circle reported that the Regional Controller of Mines, IBM, Bhubaneswar vide Letter No. MRMP/A/36-ORI/BHU/2020-21/2433 dt.12.01.2021 has approved modification of review of Mining Plan along with Progressive Mine Closure Plan over an area of 618.576 ha for production of 2.88 MTPA of Iron Ore (including waste 0.331 Million CuM) at Gandhamardan Block-A Iron Ore Mines. The copies of the approval letter of the Regional Control of Mines, Bhubaneswar and approved mining plan are enclosed vide **Annexure-IV**.

- vi. Shape file of 191.7762 ha shall be submitted.*

In compliance to the above, the RCCF Rourkela Circle reported that the DFO, Keonjhar Division has submitted the shape file of 191.7762 ha in the form of a CD which is enclosed herewith for reference.

- vii. Shape file of the balance area which is proposed to be kept as green cover shall also be submitted.*

In compliance to the above, the RCCF Rourkela Circle reported that the DFO, Keonjhar Division has submitted the shape file of the balance forest area over 210.0062 ha (401.7824 ha – 191.7762 ha) proposed to be retained as green cover in the form of a CD which is enclosed herewith for reference.

- viii. User agency shall prepare a detail CA scheme for non-forest area equivalent to 401.7824 ha of forest area being diverted.*

In compliance to the above, the RCCF Rourkela Circle reported that the CA scheme over 401.7824 ha of Non-Forest Govt. land (equivalent to the forest area being diverted) in village Khamarpadar under Thuamul Rampur Tahasil of Kalahandi District has been approved with a total financial outlay of Rs 17,38,13,700/- @ wage rate of 315/- per manday with 10 year maintenance. The details of CA scheme over 401.7824 ha identified in village Khamarpadar under Thuamul-Rampur Tahasil is given below:

Name of village	Name of Tahasil	Type of Plantation	Area (in ha)	No. of seedlings to be planted per ha	Total Seedlings (in No.)	Remarks
Khamarpadar	Th-Rampur	Bald Hill	193.209	1600	309134	
Do	Do	ANR with Gap	77.7430	400	31097	
Do	Do	ANR with Gap	58.8590	800	47087	
2 nd Patch	Do	Bald Hill	25.9714	1600	41554	
Do	Do	ANR without Gap	46	-	-	
		Total	401.7824		428872	

ix. *The non-forest area identified for CA, shall be mutated in the name of forest department and shall be notified as PF/notified u/s 4 of IFA, 1927, prior to stage II approval. Thus, the admissible identified non-forest land for raising compensatory afforestation shall be transferred, mutated and notified by the State Government as RF under Section-4 or PF under Section-20 of the Indian Forest Act, 1927 or under the relevant Section (s) of the local Forest Act in favour of the State Forest Department before issue of the Stage-II clearance;*

In compliance to the above, the RCCF Rourkela Circle reported that the non-forest Govt. land over 401.7824 ha identified in village Khamarpadar under Thuamul Rampur Tahasil of Kalahandi District has been mutated in favour of the State Forest Department as per the RoR issued by the Tahasildar, Thuamul Rampur vide Memo No.229 dt 12.02.2021 over 804.43 Acr, vide Memo No. 983 dt 11.08.2021 over 10.55 Acr. and vide Memo No. 2297 dt 10.07.2020 over 177.84 Acr. in village Khamarpadar under Thuamul Rampur Tahasil of Kalahandi District.

Subsequently, the State Government in FE&CC Department have notified the area over 814.98 Acr. or 329.811 ha as “Khamarpadar Protected Forest-A” vide Notification No. FE-DIV-FLD-0070-2021-22741/FE&CC dt 23.12.2021 and over 177.84 Acr. or 71.9714 ha as “Khamarpadar Protected Forest-B” vide Notification No. FE-DIV-FLD-0070-2021-22748/FE&CC dt 23.12.2021 under Section 33 of Odisha Forest Act, 1972. The copy of the RoRs and PF notifications are enclosed vide **Annexure-V Series**.

x. *Decision on the approval of Stage-II for balance 76.7206 ha out of 117.9648 ha may be taken by MoEF& CC separately as per the procedure followed in the Ministry.*

In compliance to the above, the RCCF Rourkela Circle reported that the DFO, Keonjhar Division has reported that after detailed deliberation on the proposal submitted by the user agency and basing on the recommendation by FAC in their meeting held on dt 21.02.2019, MoEF& CC vide letter No.8-105/2006-FC dt 22.03.2021 have conveyed the final approval for balance 76.7206 ha of forest land. The copy of the Stage-II Forest Clearance is enclosed as **Annexure-VI**.

xi. The prescription made in the scientific study on Biodiversity and its conservation for forest land around Gandhamardan Region shall be followed strictly.

In compliance to the above, the RCCF Rourkela Circle reported that the user agency has deposited Rs.9,54,17,000/- in ORISSA CAMPA Account No.150825885700538 in Corporation Bank, Lodhi Complex Branch, Lodhi Road, New Delhi vide UTR No. ANDBH 18214486246 dt 02.08.2018 for implementation of the prescription provided in the Biodiversity Conservation Plan prepared by NIT, Rourkela and approved by PCCF & HoFF, Odisha on dt 12.07.2018 for Gandhamardan Block-A & Block-B Iron Ore Mining, and its surrounding Region which are being done by the State Forest Department by utilizing the funds deposited by the user agency. The copy of the demand letter by DFO, Keonjhar, copy of the RTGS receipt in support of proof of the deposit by the user agency and approved financial outlay are enclosed vide **Annexure-VII Series**. The cost of Biodiversity Plan has been deposited by the UA against the diversion of 1177.211 ha forest land in Gandhamardan Block-B Iron Ore Mines.

xii. Activities proposed by DFO, Keonjhar to implement the Biodiversity Conservation Plan should be ensured by State Government.

In compliance to the above, the RCCF Rourkela Circle reported that the State Government has communicated the various prescriptions made in the scientific study on Biodiversity and its conservation for forest land around Gandhamardan Region to be implemented by the DFO, Keonjhar by utilizing the funds deposited by the user agency.

xiii. User Agency shall take up intensive Soil & Moisture Conservation Measures in the lease area and to stack top soil separately in an earmarked area within the area proposed for dumping of overburden.

In compliance to the above, the DFO, Keonjhar Division has reported that a scheme over 210.0062 ha of forest land to be retained as green cover within Gandhamardan Block-A Iron Ore Mines has been technically approved with a financial outlay of Rs. 85,61,400/- @ current wage rate of Rs.315/- per MD in which it has been proposed to take up plantation in ANR (without gap) mode along with soil & moisture conservation activities. The copies of letter of approval and approved scheme are enclosed as **Annexure-III**. The scheme will be implemented by the user agency as per the approved cost. The amount of top soil to be generated shall be stacked separately in an earmarked area within the area proposed for dumping of overburden. This will be utilized for plantation on the dump subsequently.

Further, a scheme for management of top soil has been technically approved with a financial outlay of Rs.2,78,57,200/- at the wage rate of Rs.315/- per man day by the RCCF, Rourkela. The recommendation of the scheme is being implemented by the user agency. The copies of the said memo and approved scheme is enclosed as **Annexure-VIII**.

The User Agency has furnished an undertaking duly countersigned by the DFO Keonjhar Forest Division which is enclosed at **Sl. No.3 of Annexure-I** to take up intensive soil and moisture conservation measures within the Mining Lease area and stack top soil in a separate area within the area proposed for dumping of overburden.

xiv. Following activities shall be undertaken by the user agency at the project cost:

- a) Mitigative measures to minimize soil erosion and choking of stream shall be implemented within a period of three years with effect from the issue of Stage-II clearance in accordance with the approved Plan in consultation with the State Forest Department.*

In compliance to the above, a scheme for Mitigative measures to minimize soil erosion and choking of stream has been technically approved by the RCCF, Rourkela with a financial outlay of Rs.26,49,600/- at the wage rate of Rs.315/- per man day. The copy of the approval and approved scheme is enclosed as **Annexure-IX**. An undertaking by the user agency is furnished at **Sl. No. 4 of Annexure-I** duly countersigned by the DFO Keonjhar Division to implement the recommendations within a period of three years from the date of stage-II approval in consultation with the State Forest Department.

- b) 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 to the above, a scheme for planting of adequate drought hardy plant species and sowing of seeds within the ML area to arrest soil erosion in accordance with the scheme approved with a financial outlay of Rs. 10,50,600/- at the wage rate of Rs.315/- per man day by the RCCF, Rourkela. The copy of the approval letter and approved scheme is enclosed as **Annexure-X**. An undertaking by the user agency is furnished at **Sl. No. 5 of Annexure-I** duly countersigned by the DFO Keonjhar Forest Division to implement the recommendations in accordance with the approved scheme.

- c) 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 to the above, a scheme for construction of check dams, retention/toe walls to arrest sliding down of the excavated material along the contour has been technically approved with a financial outlay of Rs. 21,45,300/- by the RCCF, Rourkela at the wage rate of Rs.315/- per man day. The copy of the approval letter and approved scheme are enclosed as **Annexure-XI**. An undertaking has been furnished by the user agency at **Sl. No. 6 of Annexure-I** duly countersigned by the DFO Keonjhar Forest Division to implement the recommendations in accordance with the approved scheme.

- d) *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 to the above, the DFO, Keonjhar Division has reported 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 with a financial outlay of Rs. 5,38,07,500/- by the RCCF, Rourkela at the wage rate of Rs.315/- per man day. The copy of the approval letter and approved scheme is enclosed as **Annexure-XII**. An undertaking by the User Agency is furnished at **Sl. No. 7** of **Annexure-I** duly countersigned by the DFO Keonjhar Forest Division to implement the recommendations in accordance with the approved scheme.

- e) *No damage shall be caused to the top-soil and the user agency will follow the top soil management plan.*

In compliance to the above, the DFO Keonjhar Division has reported that a scheme for management of top soil has been technically approved with a financial outlay of Rs. 2,78,57,200/- by the RCCF, Rourkela at the wage rate of Rs.315/- per man day. The compliance and undertaking has already been given against **Condition No. xiii** above.

- xv. *The land identified for the purpose of CA shall be clearly depicted on a Survey of India topo sheet of 1:50,000 scale;*

In compliance to the above, the RCCF Rourkela Circle has reported that the land identified for the purpose of CA in village Khamarpadar under Thuamul Rampur Tahasil of Kalahandi District has been depicted on the Survey of India Topo Sheet No. E 44 E 15 on 1:50,000 scale and the map is enclosed herewith as **Annexure-XIII**, duly authenticated by DFO Kalahandi (South) Division and Tahasildar Thuamul-Rampur Tahasil.

- xvi. *The User Agency shall transfer the cost of raising and maintaining the compensatory afforestation at the current wage rate in consultation with State Forest Department in the account of CAMPA of the concerned State through online portal. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years;*

In compliance to the above, the RCCF Rourkela Circle has reported that the user agency has deposited a sum of Rs.17,38,13,700/- part deposit of Rs.17,38,57,100/- through RTGS vide UTR No UBINJ 22045024404 dt.14.02.2022 in ORISSA CAMPA Account No. 150825813031946 of Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003 towards cost of Compensatory Afforestation at the current wage rate of Rs.315/- per MD. The approved CA scheme includes appropriate provision for anticipated cost increase for works scheduled for subsequent years. The copy of the demand letter of DFO, Keonjhar and copy of RTGS receipt in support of proof of the deposit by the user agency are enclosed as **Annexure-XIV** series.

xvii. *The User Agency shall transfer the funds for the 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 issued by this Ministry vide its letter No. 5-3/2007-FC dated 05.02.2009 through online portal of CAMPA account of the State Concerned;*

In compliance to the above, the RCCF Rourkela Circle has reported that an amount of Rs,46,19,25,521/- has been deposited by the user agency towards cost of NPV. The density of vegetation and the rate of NPV per ha are given as under:

Sl. No.	Area (in ha)	Density of vegetation	Rate of NPV	Amount due (in Rs.)	Amount Deposited (in Rs.)
1	64.7242	0.1	5,80,000.00	3,75,40,036.00	17,70,46,536.00
2	151.6375	0.35	9,20,000.00	13,95,06,500.00	
3	303.3855	0.4	9,39,000.00		
Grand Total	519.7442				46,19,25,521.00

The payment details are given as under:

Sl. No.	Amount deposited	UTR/DD No.	Date
1	17,70,46,536.00	018947	Dt 19.04.2006
2	18,99,19,323.00	650824	Dt 21.07.2010
3	3,15,52,092.00	650916	Dt 23.07.2010
4	6,34,07,570.00	SBINH 13075323527	Dt 16.03.2013
Total	46,19,25,521.00		

It is pertinent to mention that M/s OMC Ltd had deposited Rs 17,70,46,536/- through DD bearing No. 018947 dated 19.04.2006 drawn in favour of DFO, Keonjhar Division and subsequently the said amount alongwith the levies received from other lessees under Keonjhar Forest Division had been deposited by the DFO, Keonjhar Division through **DD No. 083747 dated 15.06.2006** amounting to Rs 92,23,88,274/-. The project wise and component wise breakup of the consolidated remittance of Rs. 92,23,88,274/- which includes Rs.17,70,46,536/- against Gandhamardan Block-A Iron Ore Mines is given as under for reference:

Sl.No.	User Agency	Details	Amount in Rs
1	Unchaballi Iron Ore Mines of M/s Indrani Pattanaik	NPV, CA & Safety Zone	2,82,38,082.00
2	OMC Gandhamardan Block-B	NPV	16,02,31,760.00
3	OMC Gandhamardan Block-A	NPV	17,70,46,536.00
4	OMC S.G.B.K.	NPV	19,83,42,290.00
5	OMC Tiringpahar	NPV	5,45,20,920.00
6	Inganjharan Iron Ore Mines of M/s Dr Sarojini Pradhan	Safety zone	26,138.00
7	OMC Serenda- Bhadrasahi	NPV	21,14,40,340.00
8	OMC Dalki	NPV	8,39,70,500.00
9	Khandabandh Iron Ore Mines of M/s TISCO	Safety Zone	81,80,973.00
10	Bamebari Iron Ore Mines of M/s TISCO	Safety Zone	2,38,499.00
11	Tiringpahar Iron Ore Mines of M/ TATA Steel Ltd.	CA, Safety zone & 1.5 times safety zone.	1,52,236.00
	Total		92,23,88,274.00

The copy of Demand Draft No. 083747 dated 15.06.2006 of DFO, Keonjhar are enclosed herewith as **Annexure-XV series**.

xviii. 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;

In compliance to the above, the RCCF Rourkela Circle has reported that an undertaking has been furnished by the user agency duly countersigned by DFO Keonjhar Division to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India which is enclosed at Sl. No.8 of Annexure-I.

xix. Fencing, protection and regeneration of the safety zone area [7.5 meters strip shall be kept within the mining lease boundary and area of the safety zone shall be part of the total area of mining lease as per the Ministry's guidelines dated 27.05.2015] shall be done within three year at the project cost from the issue of Stage-II Clearance. Besides this afforestation on degraded forest land to be selected elsewhere measuring one & a half times the area under safety zone shall also be done at the project cost; The degraded forest land (DFL) so selected will be informed to the MoEF & CC with shape files and afforestation will be done within three years from the date of Stage-II clearance and maintained thereafter in accordance with the approved Plan in consultation with the State Forest Department;

In compliance to the above, the RCCF Rourkela Circle has reported that the work of fencing, protection and regeneration over 3.029 ha (2.729 ha + 0.30 ha village road) of safety zone has been completed during the year 2019-20 i.e. within a period of three years by utilizing the funds of Rs.96,38,100/- deposited by the user agency (part deposit of Rs.57,54,86,321/-) through e-portal in Ad-hoc CAMPA through RTGS, Trans. No. 0275/0001 dt.14.02.2013 as per the demand raised by the DFO Keonjhar Division. The copy of the documents in this regard is enclosed herewith as Annexure-XVI.

In compliance to the observation made in the second part of the above paragraph, the DFO, Keonjhar Division has reported that the plantation over 4.5435 ha (1.5 times the area under safety zone) of degraded forest land identified in Barabanka RF under Ghatgaon Range of Keonjhar Forest Division has already been carried out during the year 2019-20 by utilizing the funds of Rs.13,55,600/- deposited by the user agency (part deposit of Rs 57,54,86,321/-) through RTGS, Trans. No. 0275/0001 dt.14.02.2013 in the Corporation Bank, CGO Complex, Lodhi Road, New Delhi-110003. Copy of the documents in this regard is enclosed as Annexure-XVII.

xx. User Agency should ensure that the Compensatory levies (CA cost, NPV, etc.) are deposited through challan generated online on web portal and deposited in appropriate bank online only. Amount deposited through other mode will not be accepted as compliance of the Stage-I clearance;

In compliance to the above, the RCCF Rourkela Circle has reported that the user agency has deposited all the compensatory levies through challan generated online during post 2014 period. The justification of payment through DDs during pre-2014 period is given as under:

As per the demand raised by DFO, Keonjhar vide letter No.1756 dt 28.03.2006, M/s OMC Ltd had deposited Rs.17,70,46,536/- towards NPV through DD No. 018947 dt 19.04.2006 drawn in favour of DFO, Keonjhar Division vide letter No. 8122/OMC/F&E/06 dt 20.04.2006 and subsequently the said amount alongwith the levies received from other lessees under Keonjhar Forest Division had been deposited by the DFO, Keonjhar Division through DD No. 083747 dated 15.06.2006 amounting to Rs.92,23,88,274/-.

The User Agency vide letter No.14328/OMC/F&E/10 dt 23.07.2010 had deposited Rs.22,14,71,415/- which included Rs.18,99,19,323/- vide DD No.650824 dt 21.07.2010 and Rs.3,15,52,092/- vide DD No.650916 dt 23.07.2010 drawn in favour of Compensatory Afforestation Fund (CAF), Orissa A/c No.CA-1585 in Corporation Bank as per the demand raised by DFO, Keonjhar Division.

Further, the User Agency vide letter No.3633/OMC/F&E/2013 dtd. 18.03.2013 had transferred Rs.6,34,07,570/- online through RTGS mode vide UTR No. SBINH 13075323527 dt 16.03.2013 in Corporation Bank, Lodhi Complex, New Delhi as per the demand raised by DFO, Keonjhar vide letter No.1946/Mining dtd. 11.03.2013.

The details of compensatory levies deposited by M/s OMC Ltd. duly signed by the DFO, Keonjhar Forest division and countersigned by the CCF(FD & Nodal Officer, FC Act) in the prescribed format is enclosed as **Annexure-XVIII**.

xxi. State Government shall complete settlement of rights, in term of the Scheduled Tribes and Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, if any, on the forest land to be diverted and submit the documentary evidence as prescribed by this Ministry's letter No. 11-9/1998-FC (Pt.) dated 03.08.2009 read with 05.07.2013, in support thereof;

In compliance to the above, the RCCF Rourkela Circle has reported that the Collector, Keonjhar vide Letter No. 2685 dt. 31.12.2014 has issued Certificate under FRA, 2006 over total forest land of 519.7472 ha included within the Mining Lease area. The copy of the FRA, Certificate along with its enclosures is enclosed as **Annexure-XIX**.

xxii. 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 to the above, the RCCF Rourkela Circle has reported that the validity of Mining Lease has been extended up to 20.05.2033 through a lease deed executed on dt 21.12.2017. The user agency has furnished an undertaking duly countersigned by DFO Keonjhar Division to maintain the validity of the Forest Clearance co-terminus with the validity of the lease period which is enclosed at Sl.No.9 of **Annexure-I**.

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

In compliance to the above, the RCCF Rourkela Circle has reported that the Environmental Clearance (EC) for production of 0.35 MTPA of Iron Ore has been granted by MoEF& CC vide Letter No. J-11015/1088/2007-IA.II (M) dt. 16.01.2009. Copy of the EC is enclosed as **Annexure-XX**.

xxiv. *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 to the above, the RCCF Rourkela Circle has reported that the user agency has furnished an undertaking at **Sl. No.10 of Annexure-I** that no labour camp shall be established by the user agency on the forest land and another undertaking at **Sl. No. 11 of Annexure-I** that OMC shall provide fuel preferably alternate fuels to the labourers and the staff working so as to avoid any damage and pressure on the nearby forest areas. The DFO Keonjhar Division has duly countersigned the undertaking.

xxv. *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 co-ordinates;*

In compliance to the above, the RCCF Rourkela Circle has reported that the boundary of the diverted forest land, mining lease and safety zone has been demarcated on ground at project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS co-ordinates. Photographs of the boundary pillars are enclosed herewith as **Annexure-XXI**.

xxvi. *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 to the above, the User Agency has furnished an undertaking duly countersigned by DFO Keonjhar Division which enclosed at **Sl. No. 12 of Annexure-I** to the effect that the layout plan of the mining plan/proposal will not be changed without the prior approval of the Central Government and the forest land will not be used for any purpose other than that specified in the proposal.

xxvii. *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 to the above, the user agency has furnished an undertaking at **Sl. No. 13 of Annexure-I** duly countersigned by DFO Keonjhar Division that the forest land proposed to be diverted will under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government.

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

In compliance to the above, the user agency has furnished an undertaking duly countersigned DFO Keonjhar Division which is enclosed at **Sl. No. 14 of Annexure-I** that no damage to the flora and fauna of the adjoining area will be caused.

xxix. 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 to the above, the user agency has furnished an undertaking duly countersigned DFO Keonjhar Division which enclosed at **Sl. No.15 of Annexure-I** that the user agency will 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.

xxx. User agency either himself or through the State Forest Department shall undertake gap planting 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 100 m. from outer perimeter of the mining lease. The plan for plantation and SMC activities will be prepared and submitted to MoEF& CC before Stage-II Clearance;

In compliance to the above, a scheme for gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40) has been approved with a financial outlay of Rs.5,67,800/- at the current wage rate of Rs.315/- per man day by the RCCF, Rourkela. The details of demand and payments made by the user agency are given as under:

Sl. No.	Demand raised by DFO, Keonjhar vide Letter No/date	Amount Rs.5,67,800/- paid in 3 Phases	Deposited by OMC vide UTR No./date
1	9223/6F-Mining-196/2016 dtd 11.10.2019	512700/-	ANDBN 19239755402 dtd. 29.10.2019
2	10546/6F-Mining-196/2016 dtd 06.12.2019	11700/-	ANDBN 19241868554 dtd. 27.12.2019
3	647/Mining-98/2021 dtd 25.01.2022	43400/-(Part of deposit of Rs 17,38,57,100/-)	UBINJ 22045024404 dtd. 14.02.2022 for Rs. 17,38,57,100/- which includes Rs. 43400/-
	Total	5,67,800/-	

The copy of the scheme, demand letters of DFO, Keonjhar and RTGS receipts in support of proof of the deposit by the user agency are enclosed herewith as **Annexure-XXII Series**.

xxxi. 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. Principal 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 to the above, the RCCF Rourkela Circle has reported that the mining is being carried out in a phased manner as per the mining plan with progressive mine closure plan approved by IBM, Bhubaneswar vide letter No. MRMP/A/36-ORI/ BHU/2020-21 dt.12.01.2021. The user agency has furnished an undertaking duly countersigned by DFO Keonjhar Division which is enclosed at **Sl. No. 16 of Annexure-I** that reclamation plan as per the approved Mining Plan shall be executed by the user agency and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980 and to Integrated Regional Office, MoEF& CC, Bhubaneswar.

xxxii. 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 before Stage-II approval;

In compliance to the above, a scheme for desilting of four village tanks/water bodies within a radius of 5km from the ML boundary has been prepared by DFO, Keonjhar indicating the length & width and location with GPS coordinates of the corner points has been approved with a financial outlay of Rs.15,52,300/- at the wage rate of Rs.315/- per man day by the RCCF, Rourkela. The User Agency has furnished an undertaking duly countersigned by DFO Keonjhar Division which is enclosed at **Sl. No.17 of Annexure-I** to carry out desilting of four tanks/water bodies located within 5 Km from the mine lease boundary as per the approved scheme. The copy of the approval letter and approved scheme are enclosed herewith as **Annexure-XXIII series**.

xxxiii. 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 every year regularly;

In compliance to the above, the user agency has furnished an undertaking duly countersigned by DFO Keonjhar Division which is enclosed at **Sl. No.18 of Annexure-I** to submit the annual self-compliance report in respect of the above stated conditions to the State Government, Integrated Regional Office, MoEF& CC, Bhubaneswar and to MoEF& CC, New Delhi every year regularly.

xxxiv. *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; and*

In compliance to the above, the User Agency has submitted an undertaking duly countersigned by DFO Keonjhar Division at **Sl. No.19 of Annexure-I** that if any other condition that the Regional Office, MoEF& CC, Bhubaneswar will impose in the interest of conservation, protection and development of forests & wildlife will be complied by the user agency.

xxxv. *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.*

In compliance to the above, the User Agency has submitted an undertaking duly countersigned by DFO Keonjhar Division which is enclosed at **Sl. No.20 of Annexure-I** that 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 will be complied by the user agency.

The State Government, F&E Department, Odisha has imposed six additional conditions vide letter No. 10F (Cons) 50/18 8235/F&E dtd. 26.04.2019.

a. *The User Agency shall pay towards cost of removal of trees enumerated before commencement of work on Stage-II approval and tree felling should be taken up in phases strictly as per requirement under the supervision of the Divisional Forest Officer, Keonjhar Forest Division.*

In compliance to the above, the User Agency has furnished an undertaking duly countersigned by DFO Keonjhar Division which is enclosed at **Sl. No.21 of Annexure-I** to pay towards cost of removal of trees enumerated before commencement of work on Stage-II approval and tree felling will be carried out in phases strictly as per requirement under the supervision of the DFO, Keonjhar.

b. *Evaluated royalty of trees enumerated and required to be felled for the project, shall be deposited by the User Agency.*

In compliance to the above, the User Agency has submitted an undertaking duly countersigned by DFO Keonjhar Division which is enclosed at **Sl. No.22 of Annexure-I** to abide by the norms stipulated by the State Government regarding payment of the Evaluated royalty of trees enumerated and required to be felled for the project.

c. *7.2807 ha of forest land is to be maintained as safety zone and in no circumstance, it shall be used for mining and other allied activities.*

In compliance to the above, the User Agency has submitted an undertaking duly countersigned by DFO Keonjhar Division which is enclosed at **Sl. No.23 of Annexure-I** that 7.2807 ha of forest land is to be maintained as safety zone and in no circumstance, it will be used for mining and other allied activities.

- d. *The User Agency shall undertake demarcation of the lease area on the ground posting four feet high cement concrete pillars embedded two feet inside the soil with serial number, forward and backward bearings, and distance from pillar to pillar. The User Agency shall also submit the map of lease area showing different kinds of forest land using DGPS survey data and latitude and longitude of each pillar to the Divisional Forest Officer, Keonjhar for his reference before commencement of work on final forest clearance.*

In compliance to the above, the RCCF Rourkela Circle has reported that the Mining Lease boundary has been demarcated on the ground by posting four feet high cement concrete pillars embedded two feet inside the soil with serial number, forward and backward bearings and distance from pillar to pillar. Photographs of the same are enclosed herewith as **Annexure-XXI**.

Further, the ORSAC vetted map of lease area showing different kinds of forest land using DGPS survey data and latitude and longitude of each pillar has been furnished by the User Agency. The copy of the map is enclosed herewith as **Annexure-XXIV**.

- e. *Penal compensatory afforestation and other penal measures, as would be imposed by GoI, MoEF& CC shall be complied with by the user agency.*

In compliance to the above, the User Agency has furnished an undertaking duly countersigned by DFO Keonjhar Division which is enclosed at Sl. No.24 of **Annexure-I** that penal compensatory afforestation and other penal measures, as would be imposed by Govt. of India MoEF& CC will be complied by the User Agency.

- f. *The User Agency shall furnish the valid CTO of SPCB, Odisha for mining operation beyond 31.03.2016.*

In compliance to the above, the User Agency has furnished the valid consent order of the State Pollution Control Board of Odisha vide letter No.5367/IND-I-CON-6050 dt.27.03.2021 which is valid up to dt.31.03.2022. This order shall be renewed before the date of expiry every year as per prevailing practice. The copy of the CTO is enclosed as **Annexure-XXV**.

In view of the above, the compliance to the conditions imposed by the GoI, MoEF& CC, New Delhi as well as the State Government is sent herewith for according final approval for diversion of balance forest land of 401.7824 ha including 7.2807 of safety zone out of total forest land of 519.7472 ha within total Mining Lease area of 618.576 ha for Iron Ore Mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

Encl: Stage-I Compliance in one set

Yours faithfully,


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

Memo No. 5846 /Dt. 21.03.2022

Copy along with one set of Stage-I compliance forwarded to the Deputy Director General of Forests (Central), GoI, MoEF& CC, Integrated Regional Office, Chandrasekharpur, Bhubaneswar-751023 for information and necessary with reference to GoI, MoEF& CC, New Delhi Letter F. No. 8-27/2016-FC dated 05.04.2019.

Encl: Stage-I Compliance in one set


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

Memo No. 5847 /Dt. 21.03.2022

Copy along with one set of Stage-I compliance forwarded to the OSD-cum-Special Secretary to Government, Forest, Environment & Climate Change Department, Odisha, Bhubaneswar for information and necessary action with reference to F&E Department Letter No. 8235/F&E dated 26.04.2019.

Encl: Stage-I Compliance in one set


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

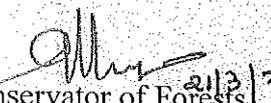
Memo No. 5848 /Dt. 21.03.2022

Copy forwarded to the RCCF, Rourkela Circle for information and necessary action with reference to his Memo No. 649 dated 25.02.2022.


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

Memo No. 5849 /Dt. 21.03.2022

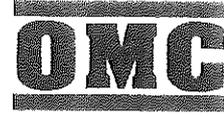
Copy forwarded to the Divisional Forest Officer, Keonjhar Forest Division for information and necessary action with reference to Memo No. 650 dated 25.02.2022 of RCCF, Rourkela Circle.


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

Memo No. 5850 Dt. 21.03.2022

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


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

**ANNEXURE-I****UNDERTAKINGS**

[As per condition No. i, iv, xiii, xiv (a), xiv (b), xiv (c), xiv (d), xviii, xxii, xxiv, xxv, xxvi, xxvii, xxviii, xxix, xxxi, xxxii, xxxiii, xxxiv and xxxv stipulated in the Stage-I Forest Clearance granted by MoEF & CC, Govt. of India vide letter No. 8-27/2016-FC, dt. 05.04.2019 and condition No. a, b, c & e of the letter No. 10F (Cons) 50/18 8235/F&E dt. 26.04.2019 given by the Special Secretary to Govt., F & E Dept. pertaining to Gandhamardan Block-A Iron Ore Mining Lease over 618.576 ha of OMC Ltd.]

I Sri Suman Krishna Sit, General Manager (Geology), Authorized signatory of O.M.C.Ltd. for this project do hereby undertake the following for furtherance of the Forest Diversion Proposal for grant of 401.7824 ha of forest land included within Gandhamardan Block-A Iron Ore mining lease of OMC located in Keonjhar Forest Division of Keonjhar district, Odisha:

Sl. No.	Condition No.	Undertakings by OMC
Conditions stipulated by MoEF & CC, Govt. of India vide Letter No. 8-27/2016-FC dt. 05.04.2019		
1	i	To maintain the legal status of forest land unchanged.
2	iv	To retain balance forest land of 210.0062 ha as green cover as per the scheme approved by RCCF, Rourkela.
3	xiii	To take up intensive soil and moisture conservation measures as per the scheme approved by RCCF, Rourkela within the ML area and stack top soil in a separate area within the area proposed for dumping overburden.
4	xiv (a)	To implement the recommendations made in the approved scheme by RCCF, Rourkela to minimize soil erosion and choking of stream within a period of three years from the date of stage-II approval in consultation with the State Forest Department.
5	xiv (b)	To implement the scheme for Planting of adequate drought hardy plant species and sowing of seeds within the ML area to arrest soil erosion as per the scheme approved by RCCF, Rourkela in consultation with the State Forest Department.
6	xiv (c)	To execute the top soil management plan as per the prescription approved by RCCF, Rourkela.
7	xiv (d)	To stabilize the overburden dumps by appropriate grading/benching as per the scheme approved by RCCF, Rourkela so as to ensure that angles of repose at any given place is less than 28°.
8	xviii	To pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India.
9	xxii	To maintain the validity of the Forest Clearance co-terminus with the validity of the lease period.
10	xxiv	No labour camp shall be established by OMC on the forest land.
11	xxv	To provide fuels preferably alternate fuels to the labourers and staff working at the site so as to avoid any damage and pressure on the nearby forest areas.
12	xxvi	To keep the layout plan of the mining plan/proposal unchanged without prior approval of the Central Government and till that time the forest land shall not be used for any purpose by OMC other than that specified in the proposal.

Sl. No.	Condition No.	Undertakings by OMC
13	xxvii	To keep the forest land proposed to be diverted intact and shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government.
14	xxviii	To maintain and no damage to the flora and fauna of the adjoining area will be caused by OMC.
15	xxix	To 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
16	xxxi	To execute the Reclamation plan as per the approved mining plan by OMC and submit an annual report on implementation thereof to the Nodal Officer, Forest (Conservation) Act, 1980, and to Integrated Regional Office, MoEF & CC, Bhubaneswar.
17	xxxii	To carry out desilting of four tanks/water bodies located within 5 Km from the mine lease boundary as per the approved scheme.
18	xxxiii	To submit the annual self-compliance report in respect of the above stated conditions to the State Government, Integrated Regional Office, MoEF & CC, Bhubaneswar and to MoEF & CC, New Delhi every year regularly
19	xxxiv	To comply any other condition that the Regional Office, MoEF & CC, Bhubaneswar will impose in the interest of conservation, protection and development of forests and wildlife.
20	xxxv	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.

Additional Conditions stipulated by the State Government vide Memo No. 8235, dt. 26.04.2019.

21	(a)	To pay the cost of removal of trees enumerated before commencement of work under Stage-II approval on receiving the demand by DFO, Keonjhar and tree felling shall be taken up by OMC in phases strictly as per requirement under the supervision of the DFO, Keonjhar.
22	(b)	To abide by the norms of the State Forest Department regarding payment of cost towards Evaluated royalty of trees enumerated and required to be felled for the project.
23	(c)	To maintain 7.2807 ha of forest land as safety zone and in no circumstance, it will be used for mining and other allied activities.
24	(e)	To comply the penal compensatory afforestation and other penal measures, as would be imposed by Govt. of India, MoEF & CC.

COUNTERSIGNED

 Divisional Forest Officer,
 Keonjhar Division


Dr. Suman Krishna Sit
 General Manager (Geology)
 Authorised Signatory
 Odisha Mining Corporation Limited
 Suman Krishna Sit
 General Manager(Geo)
 Power of Attorney Holder
 Odisha Mining Corporation Ltd
 Bhubaneswar



OFFICE OF THE DIVISIONAL FOREST OFFICER KALAHANDI SOUTH DIVISION

At/Po-Parmonandapur, Bhawanipatna, Ward No.4, Rly Station Road Dist-Kalahandi, Odisha, Pin code-766002
Phone & Tele Fax No.-06670-230268 (O) Phone No.06670-230479 (R)(E-Mail ID:- dfokids6@gmail.com)

Memo No: 319 /3F (Lease) /2022.
Dated, Bhawanipatna the 19 Jan. 2022.

To,

The Divisional Forest Officer,
Keonjhar Forest Division, Keonjhar.

Sub:-

Revised scheme for Compensatory Afforestation to be carried out over 401.7824 Ha. in village Khamarpadar of Thuamul Rampur Tahasil in Kalahandi District in lieu of forest land to be diverted for Gandhamardan Block - A Iron Ore Mining Lease of M/s Odisha Mining Corporation Ltd, located in Keonjhar District.

With reference to the above cited subject and as per the request made by Odisha Mining Corporation Ltd vide his letter No.18427/OMC/F&E/2021 dt.01.12.2021, the CA Scheme over an area of 401.7824 Ha. in village Khamarpadar of Thuamul Rampur Tahasil in Kalahandi District in lieu of forest land to be diverted for Gandhamardan Block - A Iron Ore Mining Lease of M/s Odisha Mining Corporation Ltd, Bhubaneswar has been revised basing on the current wage rate @ Rs.315/- per MD and the same has been Technically Approved by the Undersigned. Further, a copy of the approved scheme along with maps etc. forwarded herewith for favour of your information & necessary demand to the User Agency at your end.

P. Nanda
B. N.
Divisional Forest Officer
Kalahandi South Division

Encl:- As above.

Memo No: _____ /3F-Lease Date: _____ /

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

-sd-
Divisional Forest Officer
Kalahandi South Division

Memo No: _____ /3F-Lease Date: _____ /

Copy forwarded to the Regional Chief Conservator of Forests, Bhawanipatna Circle, Bhawanipatna & Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of their kind information and necessary action.

-sd-
Divisional Forest Officer
Kalahandi South Division

Memo No: _____ /3F-Lease Date: _____ /

Copy forwarded to the Executive Director, (F&E), Odisha Mining Corporation Ltd. Bhubaneswar for his information and necessary action with reference to his letter No.18427 dt.01.12.2021.

-sd-
Divisional Forest Officer
Kalahandi South Division

SCHEME FOR
SITE SPECIFIC COMPENSATORY
AFFORESTATION

OVER
401.7824 HA OF NON-FOREST GOVT. LAND
IN VILLAGE KHAMARPADAR

UNDER THUAMUL RAMPUR TAHASIL

IN
KALAHANDI DISTRICT

AGAINST
GANDHAMARDAN BLOCK-A IRON ORE MINING LEASE
IN KEONJHAR DISTRICT, ODISHA

OF
M/s ODISHA MINING CORPORATION LTD.

(A Govt.of Odisha Undertaking)

OMC HOUSE, POST BOX-34, BHUBANESWAR-1

(@ Rs. 315/- per Manday)

Detailed scheme for Compensatory Afforestation to be carried out over 401.7824 ha in village Khamarpadar under Thuamul Rampur Tahasil of Kalahandi District in lieu of forest land to be diverted for Gandhamardan Block-A Iron Ore Mining Lease of Odisha Mining Corporation Ltd. in Keonjhar District.

Gandhamardan Block-A, over an area of 618.567 ha is held by OMC Ltd under mining lease with effect from dt 29.11.1963 for a period of 30 years for extraction of Iron Ore. The validity of Mining Lease has been extended by State Govt. till dt 20.05.2033 vide letter dt. 12.10.2017. The total forest land involved within the Mining Lease is 519.7472 ha. CA scheme over 117.9648 ha has been prepared during grant of Forest Clearance over 117.9648 ha. OMC had applied for diversion of 401.7824 ha of balance forest land. So, the requirement of non-forest Govt. land for CA is 401.7824 ha. Collector, Kalahandi vide letter no. 737/Rev dt. 30.04.2013 has allotted 329.811 ha of non-forest Govt. land and vide letter no. 1789/Rev dt. 09.10.2019 has allotted 71.9714 ha of non-forest Govt. land in village Khamarpadar. During alienation process it was observed that the Kissam of plot no. 1550 (3.80 Ac.) comes under Nala and plot no. 1537 (6.75 Ac) under patharbani and not acceptable to Forest Section for raising plantation. On request of OMC, Collector, Kalahandi vide letter no. 1581/Rev. dt. 07.05.2021 allotted another 10.55 Ac or 4.269 ha of non-forest Govt. land in same Khamarpadar village of Kalahandi District. The allotment letter by Collector, Kalahandi is enclosed as **Annexure-A Series**.

The previous CA scheme over 329.7743 ha is now revised to 329.811 ha as per the area allotted by the Collector, Kalahandi. From the Decision Support System it is observed that the area contains 168 ha of Moderately Dense Forest. The proposed plantation site was verified in field and it was noticed that in some areas marked as MDF area, there is less vegetation. As per the suitability in the field it was proposed to cover 193.209 ha as bald hill plantation, 77.7430 ha for ANR with 400 plants per ha and 58.8590 ha for ANR with 800 plants per ha.

In order to comply condition no.(ii) of the Stage-I Forest Clearance over 401.7824 ha, Collector, Kalahandi allotted additional non-forest Govt. land over 71.9714 ha in village Khamarpadar under Thuamul Rampur Tahasil of Kalahandi District. On DSS study it is observed that around 46.00 ha is of MDF category out of 71.9714 ha of allotted area. On field verification also it was found that some patch of the area contains moderately dense forest. Accordingly bald hill plantation @ 1600 plants per ha has been proposed over 25.9714 ha and ANR without gap has been proposed over 46.00 ha of MDF area.

The CA scheme over 401.7824 ha was revised as given under:

Type of Plantation	Area in ha	No. of seedlings per ha to be planted	Total no. of seedlings to be planted
Bald hill	193.209	1600	309134
ANR with Gap	77.7430	400	31097

ANR with Gap	58.8590	800	47087
Sub-total	329.811		387318
Bald hill	25.9714	1600	41554
ANR without Gap	46.00	0	0
Sub-total	71.9714		41554
Grand Total	401.7824		428872

Since 428872 seedlings will be planted over 401.7824 ha which is more than 1000 seedlings per ha stipulated by MoEF & CC, no extra plantation in degraded forest is required.

A scheme over 401.7824 ha has been approved by PCCF (N) at wage rate of Rs. 298/- per manday and Rs. 311/- per Manday. Labour Commissioner of Odisha vide letter no. 5639/LC dt. 02.11.2021 has revised the minimum wage rate to Rs. 315.00 per Manday. In order to comply the condition of Stage-I FC and revision of wage rate by Labour Commissioner, CA scheme has been revised at current wage rate of Rs. 315/- per manday. Site specific scheme is therefore prepared as follows:

1. Details of non-forest land:

District: Kalahandi; Tahasil: Thuamul Rampur; Village: Khamarpadar

Khata No	Plot No	Area of the plot (Acre)	Area considered (Acre)	Kissam	Khata No	Plot No	Area of the plot (Acre)	Area considered (Acre)	Kissam
246 Abad Ajogya Anabadi	881	10.73	9.90	Dangar	246 Abad Ajogya Anabadi	1403	11.50	11.25	Dangar
	977	58.00	23.53	Dangar		1404	60.00	60.00	Dangar
	978	20.00	20.00	Dangar		1405	50.00	50.00	Dangar
	982	5.05	4.65	Dangar		1406	44.55	44.55	Dangar
	989	26.25	24.37	Dangar		1407	70.63	70.63	Dangar
	990	4.83	3.84	Dangar		1408	37.50	37.50	Dangar
	991	25.00	25.00	Dangar		1409	27.83	27.03	Dangar
	992	8.68	8.68	Dangar		1410	16.83	16.13	Dangar
	993	35.48	31.81	Dangar		1411	27.78	27.78	Dangar
	998	33.43	27.39	Dangar		1413	3.80	3.60	Dangar
	999	10.00	9.95	Dangar		1437	4.13	2.53	Dangar
	1033	23.86	19.15	Dangar		1449	3.20	2.40	Dangar
	1036	13.41	9.89	Dangar		1457	30.00	29.40	Dangar
	1042	3.26	3.26	Dangar		1460	35.85	32.35	Dangar
	1078	8.23	7.29	Dangar		1464	20.05	19.05	Dangar
	1070	23.32	16.00	Dangar		1484	3.47	3.00	Dangar
	1267	10.07	9.47	Dangar		1553	11.63	11.33	Dangar
	1270	7.84	6.64	Dangar		1554	17.75	17.25	Dangar
	1324	11.15	10.85	Dangar		1575	18.08	18.08	Dangar
	1327	29.21	28.21	Dangar		1576	9.93	9.43	Dangar
1397	4.26	4.16	Dangar	1584	15.80	15.50	Dangar		
1398	2.17	2.15	Dangar						
Total area considered 814.98 acres or 329.811 ha									
13 AAA	93	22.50	22.50	Dangar	13 AAA	97	75.83	75.83	Dangar
	96	31.80	31.80	Dangar		98	63.90	63.90	Dangar
Total area considered 177.84 Ac or 71.9714 ha									

The village maps showing the land details for the proposed compensatory afforestation are enclosed as Plate No. I & II.

The jointly verified nonforest land by Forest and Revenue authorities are enclosed as **Annexure-(B) Series**. G.P.S co-ordinates of survey stations & Key plan of Compensatory Afforestation area shown on toposheet are furnished as **Annexure-(C) series**.

2. Description of Area

- I. Whether the site selected for Compensatory Afforestation is a land bank or not: This identified non-forest area is under the control of Revenue Department and classified as 'Dangar'. It is not a land bank
- II. If the CA site is other than the land bank, reasons be given: No land bank has been established yet for this purpose.
- III. In case of non-forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary: C.A site is adjoining HadsilR.F.
- IV. Soil type: The soil is eroded with exposed rocks in some areas. Good depth of loamy soils are available in blank plain areas and podu affected areas.
- 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 medium to gentle slope.
- VI. Whether the area is bearing any root stock of vegetation: The sites selected for Compensatory Afforestation degraded Sal and root stock of sal in some areas. Few big trees also occur in scattered manner.
- VII. Suitability of the land for compensatory afforestation: The identified land is free from encroachment and encumbrance.

3. Plantation Model:-

Bald Hill plantation with 1600 plants per hectare will be raised in over 219.1804, ANR with 400 plants/ha will be raised over 77.7430 ha and ANR with 800 plants/ha will be raised over 58.8590 ha whereas as an area over 46.00 ha has been proposed for ANR without gap plantation. Maintenance of plantation for 10 years is also required as per F. No. 11-168/2009-FC Date 14.02.2012 of MoEF. Cost norm for Bald Hill plantation, ANR with 400 plants/Ha, ANR with 800 plants/Ha and ANR without Gap is given at **Annexure-(D) Series**. Revised plantation scheme prepared incorporating planting of 18 months old seedlings along with cost of transportation as per stipulation and new cost norm of Principal Chief Conservator of Forests & HoFF, Odisha with enhancement of wage rate from Rs.311/- to Rs.315/-. In case of ANR plantation pit size from 30 Cm³ enhanced to 45 Cm³ to accommodate bigger size 18 months old seedlings with (12"x10") poly bags properly inside the dugout pit.

4. Schedule of Plantation Programme:-

Detail of year-wise break up of requirements of funds is as under:-

Year	Bald Hill			ANR with 400 plants/ha		
	Area in Ha.	Rate/ Ha.	Amount in Rupees	Area in Ha.	Rate/ Ha.	Amount in Rupees
Nursery Cost Before 2 years	219.1804	89421.20	19599374.38	77.7430	22355.34	1737971.20
Nursery Cost Before 1 years		8129.21			1781763.50	

0th Year	89302.00	19573248.08	3150	244890.45
1st Year	97812.75	21438637.67	33749.1	2623756.28
2nd Year	34512.45	7564452.60	10928.4	849606.60
3rd Year	19183.50	4204647.20	3969	308561.97
4th Year	17529.75	3842177.62	992.25	77140.49
5th Year	17529.75	3842177.62	992.25	77140.49
6 th Year	17529.75	3842177.62	992.25	77140.49
7th Year	17529.75	3842177.62	992.25	77140.49
8th Year	17529.75	3842177.62	992.25	77140.49
9th Year	17529.75	3842177.62	992.25	77140.49
10th Year	17529.75	3842177.62	992.25	77140.49
Total	461069.36	101057366.75	83129.89	6462767.04

ABSTRACT

Year	ANR with 800 plants/ha			ANR without Gap		
	Area in Ha.	Rate/Ha.	Amount in Rupees	Area in Ha.	Rate/Ha.	Amount in Rupees
Nursery Cost Before 2 years	58.859	44710.68	2631625.91	46.00	0	0
Nursery Cost Before 1 years		4064.60	239238.29		0	0
0th Year		3218.25	189422.98		2976.75	136930.50
1st Year		52350.90	3081321.62		14747.25	678373.50
2nd Year		16133.75	949616.39		5623.80	258694.80
3rd Year		5292.00	311481.83		2961.00	136206.00
4th Year		992.25	58402.84		1097.25	50473.50
5th Year		992.25	58402.84		1097.25	50473.50
6 th Year		992.25	58402.84		1097.25	50473.50
7th Year		992.25	58402.84		1097.25	50473.50
8th Year		992.25	58402.84		1097.25	50473.50
9th Year		992.25	58402.84		1097.25	50473.50
10th Year		992.25	58402.84		1097.25	50473.50
Total			132715.93		7811526.92	

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

a) General Details :

Survey & Demarcation of boundary:

The identified area will be surveyed by DGPS and the area will be demarcated with RCC pillars of size 2.5 mtr x 30 cm x 30 cm. This work will be done by the User Agency at Project cost.

Fencing:

To protect the plantation from grazing and other biotic interference, it will be provided with 7 strand barbed wire fencing with RCC pillars, the cost for which will be paid by the User Agency. Length of barbed wire fence will be 25.99 km. Estimate for barbed wire fencing has been provided in Annexure – (F).

Planting and post-planting:

b) 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 plantable 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 planting should never 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 per plant should be done in time.
 - Since the area is provided with barbed wire fence, watch & ward will be easier and the watchers may be engaged in weeding in problematic areas alongwith watch & ward.
- c) **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. 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, the following species will be planted.

Sl No	Name of species	Common name	Remarks
1	<i>Azadirachta indica</i>	Neem	
2	<i>Derris indica</i>	Karanja	
3	<i>Emblica officinalis</i>	Amla	
4	<i>Terminalia chebula</i>	Harida	In lower areas with good soil depth
5	<i>Terminalia bellirica</i>	Bahada	In lower areas with good soil depth
6	<i>Dalbergia sissoo</i>	Sissoo	In lower areas with good soil depth
7	<i>Gmelina arborea</i>	Gambhari	In lower areas with good soil depth
8	<i>Dendrocalamus strictus</i>	Salia bamboo	In lower areas with good soil depth healthy seedlings from rhizomes may be planted
9	<i>Cassia siamea</i>	Chakunda	In lower areas with good soil depth
10	<i>Tamarindus indica</i>	Tentuli	In lower areas with good soil depth
11	<i>Madhuca indica</i>	Mahul	Only two years old seedlings may be planted
12	<i>Simarubaglauca</i>	Simaruba	In rocky areas with low soil depth
13	<i>Zizyphus mauritania</i>	Ber	In rocky areas with low soil depth
14	<i>Tectona grandis</i>	Teak	Potted seedlings from pre-sprouted healthy stumps

			will be planted
15	<i>Mangifera indica</i>	Mango	In situ plantation (direct placing of mango stone in planting site) during pre-monsoon may be adopted in few lower areas or where life-saving watering can be done during summer
16	<i>Caryota urens</i>	Salapa	
17	<i>Terminalia arjuna</i>	Arjuna	To be planted only on nala bank or near water.
18	<i>Desmodium oojeinensis</i>	Bandhan	
19	<i>Dillenia indica</i>	Ou	To be planted in area having good soil depth
20	<i>Feronia limonia</i>	Kaitha	
21	<i>Ficus benghalensis</i>	Bara	
22	<i>Ficus racemosa</i>	Dimiri, Dumer	
23	<i>Ficus religiosa</i>	Aswattha	
24	<i>Acacia auriculiformis</i>		
25	<i>Phoenix sylvestris</i>	Khajuri	
26	<i>Pithecolobium dulce</i>	Simakayan	
27	<i>Acacia catechu</i>	Khair	
28	<i>Acacia nilotica</i>	Babul	
29	<i>Artocarpus heterophyllus</i>	Jack fruit	
30	<i>Bauhinia variegata</i>	Kuler	
31	<i>Boswellia serrata</i>	Salai	
32	<i>Bridelia retusa</i>	Kasi	
33	<i>Buchanania lanzan</i>	Char	
34	<i>Calophyllum inophyllum</i>	Polanga	
35	<i>Cassia fistula</i>	Sunari	
36	<i>Ceiba pentandra</i>	White silk cotton	
37	<i>Chloroxylon swietenia</i>	Bheru	
38	<i>Cleistanthus collinus</i>	Karada	
39	<i>Albizia lebbek</i>	Siris	
40	<i>Albizia procera</i>	White Siris	

d) Soil and Moisture Conservation Works :-

Since most of the areas are hilly and undulating, half-moon trenches on down-hill side of plants should be constructed within cost norm.

In order to achieve 25% cost towards SMC measures of total plantation cost around 2000 meter of loose boulder check has been proposed. Estimate for barbed wire fencing has been provided in Annexure-(E). The details of plantation and SMC measures proposed are given as under:

Sl. No.	Area in Ha	Plantation model	Cost of Plantation in Rs. per Ha.	Total Plantation cost in Rs.	Cost of SMC Measures in Rs. per Ha.	Total cost SMC measures in Rs.
1	219.1804	Baldhill block plantation	4,61,069.36	10,10,57,366.75	1,11,825.00	2,45,09,848.23
2	77.7430	ANR with 400 plants per ha	83129.89	64,62,767.04	8,820.00	6,85,693.26
3	58.859	ANR with 800 plants per ha	132715.93	78,11,526.92	8,820.00	5,19,136.38

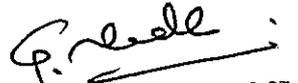
4	46.00	ANR without Gap	33989.55	15,63,519.30	8820.00	4,05,720.00
	2000 meter of loose boulder check dam	-	0	0	3,200.00	64,00,000.00
Total				11,68,95,180.01		3,25,20,397.87

So, the cost of SMC measures amounting Rs. 3, 25, 20,397.87 is 27.82 % of total plantation cost of Rs. 11, 68, 95,180.01.

e) **Protection of the plantation:** 7 strand Barbed wire fence with RCC pillars all along the periphery of the plantation will be provided. Few watchers will also be engaged for protection of the plantation as per cost norm of plantation.

6. **Proposed Monitoring Mechanism:** The scheme shall be executed by the Divisional Forest Officer, Kalahandi (South) Division with his staff and all prescribed records are to be maintained. In addition to internal monitoring by Forest Officers of State Government, a Monitoring Committee under item no. 3.4(iii) of consolidated guidelines under F.C Act 1980 issued by MoEF, shall be established with a nominee of the Central Government to oversee that the stipulations, including those pertaining to Compensatory Afforestation are carried out.

7. **Total cost of the project:** The total cost of the project is **Rs 16, 96, 14,300.00 (Rupees Sixteen crore ninety six lakh fourteen thousand three hundred)** only as detailed in Annexure-(J) which shall be payable by the user agency as per demand of the D.F.O, Kalahandi South Division.


 Divisional Forests Officer
 Kalahandi South Division
 Divisional Forest Officer
 Kalahandi South Division

OFFICE OF THE COLLECTOR & DISTRICT MAGISTRATE, KALAHANDI

No. 737 /Rev- Date: 30.04.2013

To,

Divisional Forest Officer (South)
Kalahandi, Bhawanipatna

Sub: Filing of requisition for Compensatory Aforestation – allocation of non-forest Govt. land.

Ref: Your memo No.4258 dated 06.12.2012 and letter No. 1492 dated 18.04.2013.

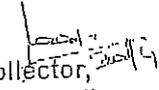
Sir,

I am to say that the enclosed schedule of non-forest Government land measuring Ac. 3718.14 equivalent to 1504.78 Ha under Th.Rampur Tahasil has been identified and allotted for raising compensatory aforestation in lieu of the forest land pertaining to lease hold area of the granted mining lease in favour of "Gandhamardan A & B" Iron Ore of OMC, Ltd. Located at Keonjhar District.

Therefore, in enclosing herewith the copy of joint inquiry report, I am to request you to file necessary requisition before the concerned Tahasildar for processing alienation proposal for sanction of the land in favour of Forest Department immediately.

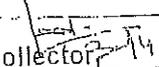
Enc: as above.

Yours faithfully,

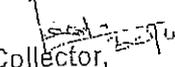

Collector,
Kalahandi

Memo No. 738 /Rev. Date: 30.04.2013

Copy to Tahasildar, Th.Rampur for information. He is requested to process the alienation proposal in favour of the Forest Department on obtaining the requisition from the Divisional Forest Officer (South), Kalahandi.


Collector,
Kalahandi

Memo No. 739 /Rev. Date: 30.04.2013
Copy to Sub-Collector, Bhawanipatna for information and necessary action.


Collector,
Kalahandi

Memo No. 740 /Rev. Date: 30.04.2013
Copy to Chairman-cum-Managing Director, Odisha Mining Corporation, Bhubaneswar for information and necessary action.


Collector,
Kalahandi

Shree
Shree
18/4/13

OFFICE OF THE COLLECTOR & DISTRICT MAGISTRATE, KALAHANDI

No. 1789 /Rev- /2019 dated. 9.10.2019

To

The Divisional Forest Officer (South)
Kalahandi, Bhawanipatna.

Sub:- Allotment of Govt. land for Compensatory Afforestation.

Ref:- Your letter No. 3981 dated 23.09.2019.

Sir,

I am to say that the enclosed schedule of non-forest Government land measuring Ac. 177.84 equivalent to 71.9714 Ha. at village- Khamarpadar under Th. Rampur Tahasildar has been identified and joint verification completed for allocation for raising compensatory afforestation in lieu of the forest land proposed for diversion for mining and ancillary use against Gandhamardan Block- A Mining lease located in the district of Keonjhar of M/s OMC Ltd.

You are requested to please file necessary requisition in Form No. 1-A before the Tahasildar, Th. Rampur for processing alienation proposal for sanction of the land in favour of Forest and Environment Department immediately.

Yours faithfully
[Signature]
7/10/2019
Collector,
Kalahandi.

Memo No. 1790 / Dated. 9.10.2019

Copy alongwith copies of joint verification report and sketch map forwarded to Tahasildar, Th. Rampur for information. He is requested to process the alienation proposal in favour of the Forest and Environment Department, Odisha on obtaining the requisition from the Divisional Forest Officer (South), Kalahandi.

Collector,
Kalahandi.

Memo No. 1791 / Dated. 9.10.2019

Copy to Sub-Collector, Bhawanipatna for information and necessary action.

Collector,
Kalahandi.

Memo No. 1792 / Dated. 9.10.2019

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

Collector,
Kalahandi.

OFFICE OF THE COLLECTOR AND DISTRICT MAGISTRATE, KALAHANDI.

Letter No. 1581 /Rev. Date: 07/05/21

To

The Divisional Forest Officer
(South Division), Kalahandi.

Sub:- Allotment-of Govt. land for Compensatory Afforestation.

Ref:- Your Letter No.2384/3F(Lease)/2021 Dt.06.05.2021.

Sir,

I am to say that the enclosed schedules of non-forest Government land measuring Ac.10.55 equivalent to 4.269 Ha. at village Khamarpadar under Th.Rampur Tahasil has been identified and joint verification completed for allocation of non-forest Government land in lieu of diversion of forest land for mining and ancillary use against Gandhamardan Block-A Mining Lease located in the district of Keonjhar of M/S Odisha Mining Corporation Ltd.

You are therefore requested to please file necessary requisition in Form No.1-A before the Tahasildar, Th.Rampur for processing alienation proposal for sanction of the land in favour of Forest and Environment Department immediately.

Yours faithfully,

Encl:- As above.


T-5-21
Addl. District Magistrate,
Kalahandi.

Memo No. 1582 /Rev. Date: 07/05/21

Copy along with copy of joint verification report and cadastral map forwarded to Tahasildar, Th. Rampur for information. He is requested to process the alienation proposal in favour of the Forest and Environment Department, Odisha on obtaining the requisition from the Divisional Forest Officer (South), Kalahandi.

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


T-5-21
Addl. District Magistrate,
Kalahandi.

Memo No. 1583 /Rev. Date: 07/05/21

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


T-5-21
Addl. District Magistrate,
Kalahandi.

Plot No.	Khata No.	Kissam	Area in Acers	Plot No.	Khata No.	Kissam	Area in Acers
766	246 (Abad Ajogya Anabadi)	Dangar	8.45	1036	246 (Abad Ajogya Anabadi)	Dangar	13.41
771		Dangar	13.83	1042		Dangar	3.26
772		Dangar	12.38	1070		Dangar	23.32
777		Dangar	14.75	1078		Dangar	8.23
778		Dangar	4.25	1267		Dangar	10.07
779		Dangar	1.40	1270		Dangar	7.84
780		Dangar	1.23	1324		Dangar	11.15
782		Dangar	2.62	1327		Dangar	29.21
787		Dangar	40.10	1397		Dangar	4.26
801		Dangar	3.19	1398		Dangar	2.17
805		Dangar	3.22	1403		Dangar	11.50
806		Dangar	7.50	1404		Dangar	60.00
807		Dangar	5.48	1405		Dangar	50.00
881		Dangar	10.73	1406		Dangar	44.55
914		Dangar	10.83	1407		Dangar	70.63
922		Dangar	9.30	1408		Dangar	37.50
924		Dangar	9.48	1409		Dangar	27.83
927		Dangar	6.25	1410		Dangar	16.83
938		Dangar	2.95	1411		Dangar	27.78
941		Dangar	8.58	1413		Dangar	3.80
944		Dangar	1.59	1427		Dangar	4.13
948		Dangar	5.25	1449		Dangar	3.20
952		Dangar	15.45	1457		Dangar	30.00
968		Dangar	80.75	1460		Dangar	35.85
969		Dangar	94.83	1464		Dangar	20.05
970		Dangar	60.00	1484		Dangar	3.47
971		Dangar	51.20	1537		Pathar	6.98
972		Dangar	52.78	1550		Chatan	6.98
973		Dangar	55.00	1553		Dangar	4.30
974		Dangar	67.08	1554		Dangar	11.63
975		Dangar	71.75	1575		Dangar	17.75
976		Dangar	62.50	1576		Dangar	18.08
977		Dangar	58.00	1584		Dangar	9.93
978	Dangar	20.00		Dangar	15.80		
982	Dangar	5.05					
989	Dangar	26.25					
990	Dangar	4.83					
991	Dangar	25.00					
992	Dangar	8.68					
993	Dangar	35.48					
998	Dangar	33.43					
999	Dangar	10.00					
1033	Dangar	23.86					

Total: 3718.14 Acr or 1504.78 ha

[Signature]
20.12.12
Forester
Benakhamar Section

[Signature]
20.12.12
Range Officer
Jaspurna Range

[Signature]
25.12.12
Revenue Inspector
Juberojpur
196 (xiii)

[Signature]
25.12.12
Tahasildar
T. Rampur
Divisional Forest
Kalahandi South

DETAILS OF NON-FOREST GOVT. LAND ALLOTTED IN VILLAGE KHAMPADAR UNDER THUAMULRAMPUR TAHSIL OF KALAHANDI DISTRICT FOR RAISING COMPENSATORY AFFORESTATION AGAINST GANDEHAMARDAN BLOCK-A IRON ORE MINES OF M/s O.M.C.Ltd LOCATED IN KEONJHAR DISTRICT, ODISHA.

Tahasil	Village	Khata No.	Plot No.	Total area of the plot (Acr)	Area considered (Acr)	Khasam	Boundary Description				Remarks (Full/Part)		
							North	South	East	West			
THUAMULRAMPUR	KHAMPADAR	246	881	10.73	9.90	Dangar	878,880	991	993	885,887	Part		
			977	58.00	23.53	Dangar	968,978	1404,1405	989,983	976	968	Part	
			978	20.00	20.00	Dangar	922	977	914,982	890,891,981	978	978	Full
			982	5.05	4.65	Dangar	914,979	977	890,891,981	991	977	Part	
			989	26.25	24.37	Dangar	990,987,988	1404	991	985,986	990,989	Part	
			990	4.83	3.84	Dangar	1593,888	989	992,1397	991	991	Full	
			991	25.00	25.00	Dangar	881	1398,1403	1388,1385	991	991	Full	
			992	8.68	8.68	Dangar	993	1397	1314,1315	991,881	999,881	Part	
			993	35.48	31.81	Dangar	998,995,994	992,1383	1250,1251	876,877	1000,1002	Part	
			998	33.43	27.39	Dangar	1033	993	998	1033	1069,1067	Part	
			999	10.00	9.95	Dangar	1033	998	1036,1241	1033	1270	Part	
			1033	23.86	19.15	Dangar	1032,1034	999,998	1220,1236	1322,1321	1644,1329	Part	
			1036	13.41	9.89	Dangar	Road, 1039	1033	1078,1077	1326,Nala	991	Part	
			1070	23.32	16.00	Dangar	772	Road, 1039	Nala, 1024	1395	1403	Part	
			1267	10.07	9.47	Dangar	1068,1266	Dangar	1324	1656	1403	Part	
			1270	7.84	6.64	Dangar	1271,1269	Dangar	1324	1412,1400	1404	Part	
			1324	14.15	10.85	Dangar	1270,1267	Dangar	1327	1408	1405	Part	
			1327	29.21	28.21	Dangar	1324	Dangar	1537	1404	1406	Part	
			1397	4.26	4.16	Dangar	992	Dangar	1396	1403	1406	Part	
			1398	2.17	2.15	Dangar	991	Dangar	1402,1401	1404	1406	Part	
1403	14.50	11.25	Dangar	989	Dangar	1411	1404	1406	Part				
1404	60.00	60.00	Dangar	977,989	Dangar	1408	1404	1406	Full				
1405	50.00	50.00	Dangar	974,977	Dangar	1407	1405	Udayagiri RF	Full				
1406	44.55	44.55	Dangar	975,974	Dangar	1407	1408	Udayagiri RF	Full				
1407	70.63	70.63	Dangar	1406,1405	Dangar	1457	1411	1407	Full				
1408	37.50	37.50	Dangar	1404	Dangar	1409	1412	1047,1455	Part				
1409	27.83	27.03	Dangar	1408	Dangar	1446,1451,45	1417,1418	1409	Part				
1410	16.83	16.13	Dangar	1411	Dangar	1433,34,35	1413	1408,1404	Full				
1411	27.78	27.78	Dangar	1403	Dangar	1410	1413	1408,1404	Full				

Revenue Inspector
 25.10.17
 Forest Range Officer
 Kalahandi District
 69

JOINT VERIFICATION REPORT OF NON-FOREST GOVERNMENT LAND IN VILLAGE KHAMARPADAR UNDER THUMUL RAMPUR TAHASIL OF KALAHANDI DISTRICT FOR RAISING COMPENSATORY AFFORESTATION (BALD HILL PLANTATION) IN LIEU OF THE FOREST LAND PROPOSED FOR DIVERSION FOR MINING AND ANCILLIARY USE AGAINST GANDHAMARDAN BLOCK-A MINING LEASE OF M/s ODISHA MINING CORPORATION LIMITED LOCATED IN THE DISTRICT OF KEONJHAR, ODISHA.

Certified that onjoint verification of Non forest government land (Kissam – Dangar) in village Khamarpadar of Thumul Rampur Tahasil of Kalahandi District, it is found that the scheduled wise land mentioned as given under is suitable for bald hill Block plantation and are free from, encroachment and encumbrances, does not comes under DLC land and FR Settlement.

Name of the Mines	Name of the Village	Plot No.	Khata No.	Kissam	Total area of the plot (Acres)	Area considered in (Acres)	Type of Plantation in Hectares
Gandhamardan Block-A Mining Lease	Khamarpadar	93	13 (AAA)	Dangar	22.50	22.50	Block Plantation 1600 Plants /HA
		96			31.80	31.80	
		97			75.83	75.83	
		98			63.90	47.71	
TOTAL						177.84 Acre Or 71.9714 Ha	

Revenue Inspector
Barajpur

Forester
21.9.19

Range Officer
Jaipatna Range
Forest Range Officer

Tahasildar
Th. Rampur
Th. Rampur

JOINT VERIFICATION REPORT OF NON-FOREST GOVERNMENT LAND IN VILLAGE KHAMARPADAR UNDER TH.RAMPUR TAHAŞIL OF KALAHANDI DISTRICT FOR RAISING COMPENSATORY AFFORESTATION (BALD HILL PLANTATION) IN LIEU OF THE FOREST LAND PROPOSED FOR DIVERSION FOR MINING AND ANCILLIARY USE AGAINST GANDHAMARDAN BLOCK-A 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 (Kissam – Dangar) in village Khamarpadar of Thuamul Rampur Tahasil of Kalahandi District, it is found that the scheduled wise land mentioned in the table is suitable for Bald Hill plantation and are free from encroachment and encumbrances. The area does not come under DLC land and FR Settlement record.

Name of the Mines	Name of the Village	Khata No.	Plot No.	Total area of the plot (Acres)	Area considered in (Acres)	Kissam	Type of Plantation recommended
Gandhamardan Block-A Mining Lease	Khamarpadar	242 (A.A.A)	1042	3.26	3.26	Dangar	Bald Hill Plantation 1600 plants/ha
			1078	8.23	7.29		
TOTAL :-					10.55 Acres or 4.269 Ha.		


Revenue Inspector
Jubarpur


Forester
Benaknamar Section


Dy Range Officer
Jajpatnar Range


Tahasildar
Thuamul Rampur
18-04-21

82°46'30"E

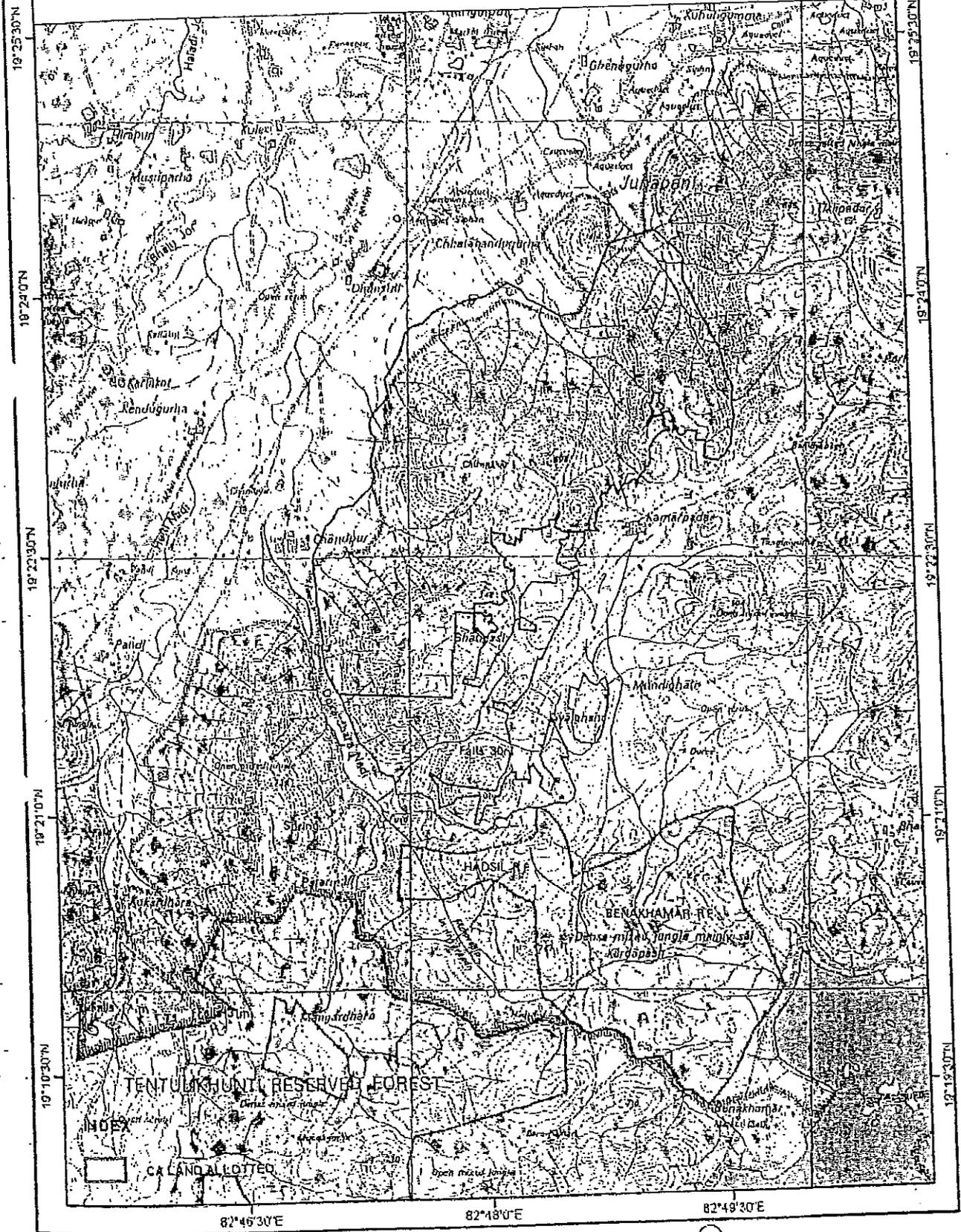
82°48'0"E

82°49'30"E

KEY PLAN

Scale- 1:50000

Reff. Topo Sheet No. 65 I/15



18°25'30"N
18°24'0"N
18°22'30"N
18°21'0"N
18°10'30"N

18°25'30"N
18°24'0"N
18°22'30"N
18°21'0"N
18°10'30"N

82°45'30"E

82°48'0"E

82°49'30"E

[Signature]
 Director Forest (SG-1)(XV)
 Ralahadi, South

[Signature] S.M. Das
 District Engineer (Geo)
 District Survey Office, Ralahadi
 District, South

82°47'30"E

82°50'0"E

KEY PLAN

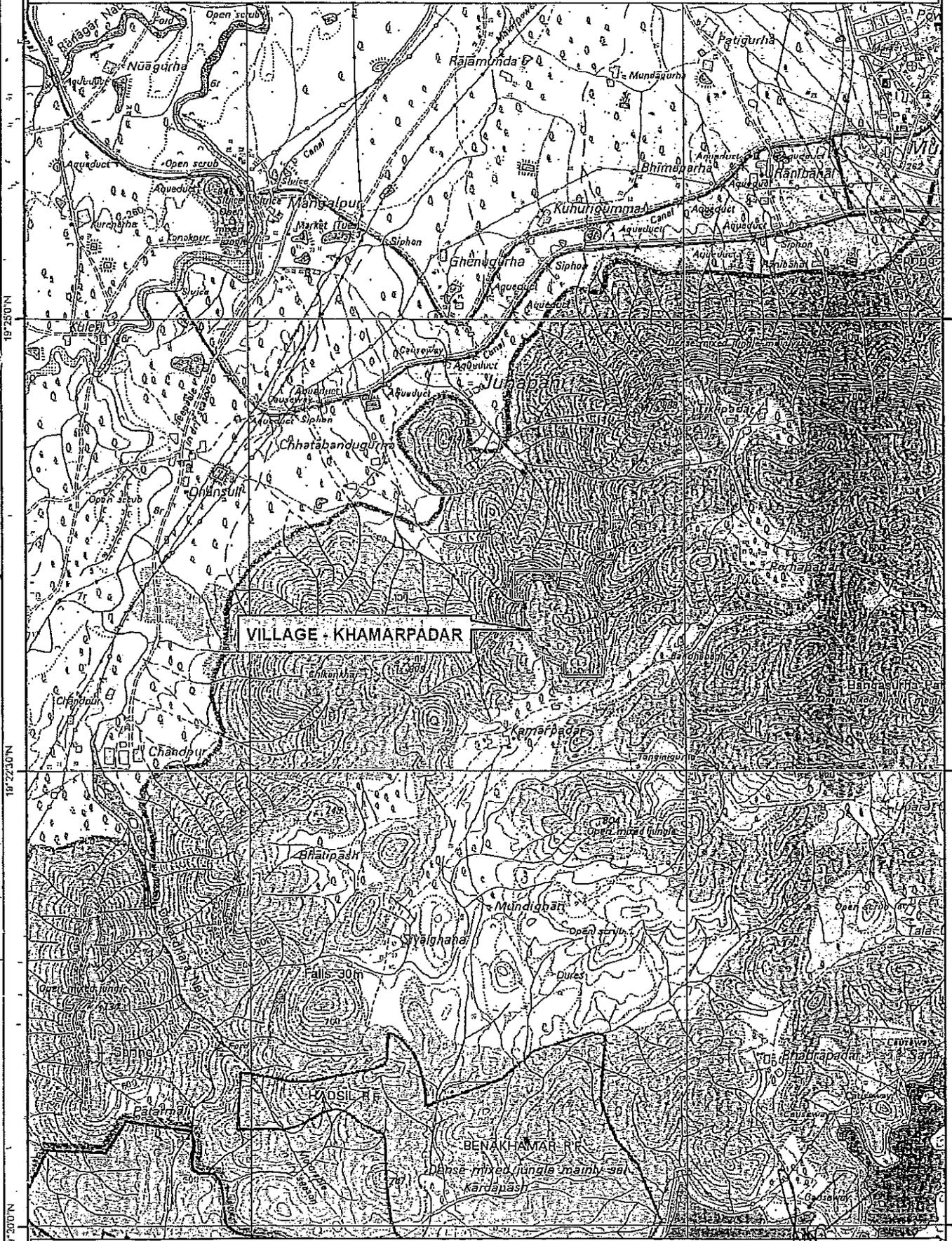
N



REF; TOPOSHEET E44E15(65I/15)

SCALE; 1:50000

OMC LTD.



VILLAGE - KHAMARPADAR

AREA PROPOSED FOR COMPENSATORY AFFORESTATION (71.9714 HA.)

Divisional Forest Officer
Kalahandi South Division

82°47'30"E

82°50'0"E

19°23'0"N

19°22'30"N

19°20'0"N

100°45'0"E

100°44'30"E

100°42'0"E

Annexure-(C)

Co-ordinates of boundary pillars of Khamarpadar Compensatory Afforestation area

PATCH-1						
From	To	Longitude	Latitude	Forward Bearing	Backward Bearing	Distance in mtr
1	2	82°48'34.94"	19°22'15.84"	179°16'02"	359°16'02"	208.55
2	3	82°48'34.96"	19°22'09.05"	209°49'17"	29°49'17"	468.499
3	4	82°48'26.83"	19°21'55.92"	204°29'59"	24°29'59"	397.606
4	5	82°48'21.05"	19°21'44.21"	294°06'00"	114°06'00"	36.425
5	6	82°48'19.91"	19°21'44.70"	196°24'33"	16°24'33"	338.494
6	7	82°48'16.52"	19°21'34.18"	219°47'06"	39°47'06"	292.308
7	8	82°48'10.03"	19°21'26.94"	314°55'15"	134°55'15"	76.898
8	9	82°48'08.19"	19°21'28.72"	270°59'25"	90°59'25"	132.338
9	10	82°48'03.65"	19°21'28.84"	185°35'14"	5°35'14"	49.301
10	11	82°48'03.47"	19°21'27.24"	110°40'43"	290°40'43"	189.545
11	12	82°48'09.52"	19°21'25.01"	204°03'25"	24°03'25"	100.256
12	13	82°48'08.09"	19°21'22.04"	161°19'27"	341°19'27"	291.954
13	14	82°48'11.20"	19°21'13.02"	195°14'24"	15°14'24"	263.269
14	15	82°48'08.73"	19°21'04.78"	221°18'16"	41°18'16"	84.841
15	16	82°48'06.79"	19°21'02.73"	196°25'12"	16°25'12"	141.505
16	17	82°48'05.37"	19°20'58.33"	274°21'08"	94°21'08"	579.805
17	18	82°47'45.58"	19°20'59.96"	310°54'13"	130°54'13"	142.54
18	19	82°47'41.93"	19°21'03.03"	292°47'57"	112°47'57"	57.68
19	20	82°47'40.11"	19°21'03.77"	213°16'30"	33°16'30"	20.414
20	21	82°47'39.72"	19°21'03.22"	135°34'07"	315°34'07"	151.988
21	22	82°47'43.33"	19°20'59.66"	173°12'45"	353°12'45"	241.425
22	23	82°47'44.22"	19°20'51.85"	70°18'40"	250°18'40"	162.402
23	24	82°47'49.48"	19°20'53.58"	27°17'47"	207°17'47"	68.964
24	25	82°47'50.58"	19°20'55.56"	81°29'32"	261°29'32"	264.956
25	26	82°47'59.58"	19°20'56.75"	189°34'57"	9°34'57"	305.462
26	27	82°47'57.73"	19°20'46.97"	106°19'19"	286°19'19"	50.172
27	28	82°47'59.37"	19°20'46.49"	15°33'35"	195°33'35"	220.324
28	29	82°48'01.47"	19°20'53.38"	89°15'07"	269°15'07"	114.91
29	30	82°48'05.41"	19°20'53.39"	28°31'57"	208°31'57"	17.586
30	31	82°48'05.70"	19°20'53.88"	294°41'09"	114°41'09"	47.05
31	32	82°48'04.24"	19°20'54.54"	21°40'23"	201°40'23"	62.143
32	33	82°48'05.05"	19°20'56.41"	80°03'45"	260°03'45"	56.498
33	34	82°48'06.96"	19°20'56.71"	22°40'04"	202°40'04"	27.635
34	35	82°48'07.33"	19°20'57.53"	355°32'12"	175°32'12"	71.316
35	36	82°48'07.17"	19°20'59.85"	26°33'54"	206°33'54"	137.854
36	37	82°48'09.33"	19°21'03.83"	52°39'06"	232°39'06"	74.041
37	38	82°48'11.36"	19°21'05.28"	92°51'45"	272°51'45"	42.72
38	39	82°48'12.82"	19°21'05.19"	177°40'42"	357°40'42"	78.998
39	40	82°48'12.90"	19°21'02.62"	84°37'40"	264°37'40"	136.172
40	41	82°48'17.55"	19°21'02.99"	181°55'42"	1°55'42"	44.575
41	42	82°48'17.48"	19°21'01.54"	84°23'26"	264°23'26"	25.247
42	43	82°48'18.34"	19°21'01.62"	353°38'59"	173°38'59"	166.354

43	44	82°48'17.77"	19°21'07.00"	64°27'04"	244°27'04"	53.793
44	45	82°48'19.44"	19°21'07.74"	140°52'15"	320°52'15"	167.757
45	46	82°48'23.02"	19°21'03.47"	195°16'04"	15°16'04"	94.659
46	47	82°48'22.14"	19°21'00.51"	124°17'18"	304°17'18"	146.91
47	48	82°48'26.27"	19°20'57.78"	13°16'27"	193°16'27"	153.653
48	49	82°48'27.53"	19°21'02.63"	97°25'00"	277°25'00"	54.496
49	50	82°48'29.38"	19°21'02.38"	6°56'04"	186°56'04"	29.818
50	51	82°48'29.51"	19°21'03.34"	270°11'10"	90°11'10"	61.6
51	52	82°48'27.40"	19°21'03.37"	320°07'03"	140°07'03"	95.522
52	53	82°48'25.33"	19°21'05.77"	311°50'27"	131°50'27"	65.436
53	54	82°48'23.67"	19°21'07.21"	335°49'49"	155°49'49"	134.819
54	55	82°48'21.83"	19°21'11.23"	13°47'57"	193°47'57"	424.914
55	56	82°48'25.45"	19°21'24.61"	148°52'29"	328°52'29"	401.617
56	57	82°48'32.44"	19°21'13.36"	170°02'58"	350°02'58"	81.019
57	58	82°48'32.89"	19°21'10.76"	272°21'26"	92°21'26"	82.67
58	59	82°48'30.06"	19°21'10.90"	152°37'55"	332°37'55"	384.615
59	60	82°48'35.99"	19°20'59.73"	187°36'44"	7°36'44"	102.74
60	61	82°48'35.49"	19°20'56.43"	240°12'12"	60°12'12"	82.508
61	62	82°48'33.02"	19°20'55.12"	268°58'19"	88°58'19"	122.62
62	63	82°48'28.82"	19°20'55.09"	252°06'12"	72°06'12"	215.424
63	64	82°48'21.78"	19°20'53.00"	273°38'17"	93°38'17"	109.812
64	65	82°48'18.02"	19°20'53.27"	246°15'15"	66°15'15"	62.501
65	66	82°48'16.05"	19°20'52.47"	264°36'59"	84°36'59"	38.369
66	67	82°48'14.74"	19°20'52.36"	245°25'48"	65°25'48"	105.338
67	68	82°48'11.45"	19°20'50.97"	216°06'18"	36°06'18"	86.888
68	69	82°48'09.67"	19°20'48.71"	291°19'04"	111°19'04"	35.209
69	70	82°48'08.55"	19°20'49.13"	271°59'15"	91°59'15"	63.438
70	71	82°48'06.38"	19°20'49.23"	216°14'27"	36°14'27"	47.363
71	72	82°48'05.40"	19°20'47.99"	194°23'26"	14°23'26"	62.769
72	73	82°48'04.85"	19°20'46.02"	229°38'30"	49°38'30"	138.056
73	74	82°48'01.21"	19°20'43.15"	291°29'26"	111°29'26"	294.257
74	75	82°47'51.87"	19°20'46.75"	261°24'59"	81°24'59"	139.361
75	76	82°47'47.14"	19°20'46.12"	306°16'28"	126°16'28"	150.088
76	77	82°47'43.03"	19°20'49.05"	344°54'10"	164°54'10"	178.149
77	78	82°47'41.50"	19°20'54.66"	291°42'50"	111°42'50"	170.283
78	79	82°47'36.10"	19°20'56.76"	262°55'29"	82°55'29"	142.61
79	80	82°47'31.25"	19°20'56.24"	264°54'16"	84°54'16"	99.469
80	81	82°47'27.85"	19°20'55.98"	347°36'12"	167°36'12"	195.954
81	82	82°47'26.48"	19°21'02.22"	273°07'30"	93°07'30"	69.704
82	83	82°47'24.09"	19°21'02.37"	295°05'58"	115°05'58"	83.925
83	84	82°47'21.50"	19°21'03.55"	335°38'15"	155°38'15"	116.361
84	85	82°47'19.90"	19°21'07.01"	318°49'23"	138°49'23"	113.904
85	86	82°47'17.36"	19°21'09.83"	308°49'25"	128°49'25"	158.658
86	87	82°47'13.16"	19°21'13.10"	336°21'59"	156°21'59"	307.817
87	88	82°47'09.03"	19°21'22.31"	322°25'19"	142°25'19"	74.446
88	89	82°47'07.50"	19°21'24.25"	342°00'15"	162°00'15"	66.03
89	90	82°47'06.82"	19°21'26.30"	334°26'56"	154°26'56"	50.543

90	91	82°47'06.09"	19°21'27.79"	331°37'21"	151°37'21"	68.093
91	92	82°47'05.00"	19°21'29.75"	89°20'40"	269°20'40"	553.027
92	93	82°47'23.95"	19°21'29.77"	89°16'55"	269°16'55"	504.454
93	94	82°47'41.23"	19°21'29.80"	89°08'41"	269°08'41"	172.777
94	95	82°47'47.15"	19°21'29.83"	359°28'17"	179°28'17"	505.586
95	96	82°47'47.17"	19°21'46.27"	89°06'26"	269°06'26"	29.64
96	97	82°47'48.19"	19°21'46.27"	359°11'31"	179°11'31"	403.319
97	98	82°47'48.14"	19°21'59.39"	89°06'07"	269°06'07"	201.664
98	99	82°47'55.05"	19°21'59.42"	179°17'41"	359°17'41"	203.769
99	100	82°47'55.06"	19°21'52.80"	87°08'15"	267°08'15"	32.04
100	101	82°47'56.16"	19°21'52.84"	132°11'29"	312°11'29"	150.087
101	102	82°47'59.93"	19°21'49.52"	217°50'22"	37°50'22"	113.456
102	103	82°47'57.52"	19°21'46.63"	187°04'43"	7°04'43"	326.757
103	104	82°47'56.02"	19°21'36.10"	274°47'12"	94°47'12"	127.245
104	105	82°47'51.68"	19°21'36.49"	178°20'52"	358°20'52"	50.906
105	106	82°47'51.71"	19°21'34.83"	98°12'40"	278°12'40"	186.714
106	107	82°47'58.03"	19°21'33.91"	25°16'29"	205°16'29"	420.13
107	108	82°48'04.32"	19°21'46.20"	88°24'32"	268°24'32"	25.61
108	109	82°48'05.19"	19°21'46.21"	31°19'33"	211°19'33"	253.381
109	110	82°48'09.78"	19°21'53.21"	6°54'40"	186°54'40"	124.102
110	111	82°48'10.34"	19°21'57.21"	56°33'49"	236°33'49"	66.787
111	112	82°48'12.26"	19°21'58.39"	179°14'10"	359°14'10"	120.011
112	113	82°48'12.27"	19°21'54.48"	89°35'16"	269°35'16"	185.338
113	114	82°48'18.62"	19°21'54.46"	0°20'43"	180°20'43"	44.267
114	115	82°48'18.65"	19°21'55.90"	298°04'51"	118°04'51"	211.874
115	116	82°48'12.28"	19°21'59.21"	358°13'05"	178°13'05"	180.087
116	117	82°48'12.15"	19°22'05.06"	32°53'54"	212°53'54"	219.46
117	118	82°48'16.30"	19°22'11.02"	90°22'22"	270°22'22"	286.939
118	119	82°48'26.13"	19°22'10.86"	359°20'02"	179°20'02"	68.805
119	120	82°48'26.13"	19°22'13.10"	82°43'13"	262°43'13"	133.04
120	1	82°48'30.66"	19°22'13.60"	60°33'00"	240°33'00"	142.648
PERIMETER - 18670.925 METER & AREA-298.248 HA.						

PATCH-2						
Id	TO	LONGITUDE	LATITUDE	FORWARD	BACKWARD	DISTANCE
1	2	82°48'44.34"	19°21'48.60"	169°54'01"	349°54'01"	196.178
2	3	82°48'45.45"	19°21'42.30"	266°07'26"	86°07'26"	37.606
3	4	82°48'44.17"	19°21'42.23"	162°24'48"	342°24'48"	78.57
4	5	82°48'44.95"	19°21'39.79"	192°22'23"	12°22'23"	255.535
5	6	82°48'42.99"	19°21'31.69"	201°51'56"	21°51'56"	176.617
6	7	82°48'40.68"	19°21'26.38"	269°10'05"	89°10'05"	171.396
7	8	82°48'34.80"	19°21'26.36"	296°07'03"	116°07'03"	101.769
8	9	82°48'31.69"	19°21'27.85"	348°34'13"	168°34'13"	166.865
9	10	82°48'30.61"	19°21'33.18"	7°36'48"	187°36'48"	144.922
10	11	82°48'31.32"	19°21'37.84"	273°20'02"	93°20'02"	73.369
11	12	82°48'28.82"	19°21'38.01"	7°02'18"	187°02'18"	239.601
12	13	82°48'29.91"	19°21'45.73"	112°53'10"	292°53'10"	108.614

13	14	82°48'33.32"	19°21'44.32"	18°10'32"	198°10'32"	198.675
14	15	82°48'35.51"	19°21'50.44"	147°37'55"	327°37'55"	114.036
15	16	82°48'37.57"	19°21'47.29"	115°25'03"	295°25'03"	95.266
16	17	82°48'40.50"	19°21'45.93"	34°49'59"	214°49'59"	84.035
17	1	82°48'42.17"	19°21'48.15"	77°20'06"	257°20'06"	64.867
PERIMETER - 2307.921 METER & AREA-24.500 HA.						

PATCH-3						
FROM	TO	LONGITUDE	LATITUDE	FORWARD	BACKWARD	DISTANCE
1	2	82°48'36.06"	19°22'28.80"	179°05'10"	359°14'28"	76.084
2	3	82°48'36.07"	19°22'26.32"	178°16'47"	358°47'56"	32.816
3	4	82°48'36.08"	19°22'25.25"	224°02'25"	44°08'16"	82.067
4	5	82°48'34.10"	19°22'23.36"	202°01'43"	22°05'14"	94.57
5	6	82°48'32.85"	19°22'20.52"	157°14'19"	337°35'56"	70.4
6	7	82°48'33.75"	19°22'18.40"	116°17'58"	296°33'54"	36.719
7	8	82°48'34.87"	19°22'17.85"	224°02'10"	44°05'50"	10.752
8	9	82°48'34.61"	19°22'17.60"	240°15'16"	60°58'46"	107.716
9	10	82°48'31.36"	19°22'15.93"	309°06'29"	129°33'05"	30.54
10	11	82°48'30.56"	19°22'16.58"	272°05'31"	92°22'40"	38.265
11	12	82°48'29.25"	19°22'16.64"	297°05'11"	117°21'56"	103.752
12	13	82°48'26.11"	19°22'18.22"	22°48'42"	201°38'08"	25.475
13	14	82°48'26.44"	19°22'18.99"	19°39'17"	197°45'28"	173.464
14	15	82°48'28.32"	19°22'24.34"	272°06'43"	92°30'06"	23.112
15	16	82°48'27.53"	19°22'24.38"	6°24'56"	185°07'56"	48.863
16	17	82°48'27.69"	19°22'25.96"	90°02'40"	270°03'40"	61.913
17	18	82°48'29.81"	19°22'25.94"	7°00'56"	186°06'56"	24.215
18	19	82°48'29.91"	19°22'26.72"	91°33'49"	271°50'51"	34.877
19	20	82°48'31.11"	19°22'26.68"	11°53'04"	188°31'34"	40.599
20	21	82°48'31.33"	19°22'27.98"	306°11'17"	126°54'42"	23.139
21	22	82°48'30.70"	19°22'28.44"	278°03'28"	98°12'53"	78.243
22	23	82°48'28.05"	19°22'28.83"	89°25'51"	269°37'54"	233.935
PERIMETER - 1451.516 METER & AREA-7.062 HA.						

P. P. P. P. P.

Divisional Forest Officer
Kalahandi South Division

ANNEXURE-(D)

COST NORM FOR BALD HILL PLANTATION @ 1600 PLANTS PER HECTARE
(Labour cost @Rs 315.00 per manday)

SI No	Item of Work	Preferable Period of execution	Manday	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
NURSERY COST						
1	Cost Of raising 18 months old seedling including 10% casualty @1760 seedling per hectare.	Before 2(two) year of achievement year	219.12	69022.80	20398.40	89421.20
2	Cost of 18 months old seedling for Casualty Replacement @160 plants per hectare.	Before 01 year of achievement year	19.92	6274.80	1854.41	8129.21
Total			239.04	75297.60	22252.81	97550.41
PREPARATORY OPERATION (0TH YEAR)						
1	Survey and demarcation	June	2	630.00	0	630.00
2	Pitting (1600 per ha) each pit-45 cm ³	Nov-Dec	128	40320.00	0.00	40320.00
3	Soil and water conservation measures (a) Staggered trench along the contour @ 300 per ha (2.5mx0.5 m x0.5m); digging of percolation pits @ 600 per ha in lieu of staggered trenches, gully plugging and Drainage line treatment, half moon trench on the uphill side of each planting pit (100 MD for staggered trench / percolation pits and 30 MD for gully plugging, drainage line treatment and half moon trench). (b) Site clearance- 8 MD, alignment and staking of contour lines on ground, planting pits, contour trenches / percolation pits and check dam sites, etc.- 2 MD	Sep-Nov	130	40950.00	0.00	40950.00
		July-Aug	10	3150.00	0.00	3150.00
TOTAL 0th year			270	85050.00	0.0	85050.0
4	Monitoring & Supervision charge 5% of the total cost			0.00	0.0	4252.50
GRAND TOTAL			270	85050.00	0.0	89302.50
PLANTING OPERATION (1ST YEAR)						
1	Transportation of 18 months old polythin bag seedling in hired truck/tractor from the permanent/mega nursery to planting site including loading and un loading (average lead of 10 Rkm) and stacking the seedling @Rs.6/- per seedling (1760 nos.)	July-Aug	0	0	10560	10560
2	Freshening of pits -64 MD, filling with fertile soil and farm yard manure (FYM)- 24 MD, application of insecticide and planting of 60 cm tall saplings including carriage of plants- 21 MD	Jun-Jul	109	34335	0	34335
3	Cost of Fertile Soil 0.25 cft @ Rs.8 per cft/FYM 0.25 cft @ Rs.15 per cft per pit		0	0	9200	9200

4	Sowing of seeds on dug out earth of trench	June	6	1890	200	2090
5	Carriage-6MD,Planting including Casualty replacement-6 MD, fertilizer application-5 MD, 1st weeding-7 MD, 2nd weeding -5 MD, soil working- 7 MD	Jul-Aug	36	11340	0	11340
6	Cost of fertilizer and insecticide (Granular Insecticide @ 5 gms/plant @ Rs.80/- per kg=Rs.640.00, NPK 100 gms/plant in two doses @ Rs.24 per kg= 3840		0	0	4480	4480
7	Maintenance of soil and Moisture Conservation measures (20% of cost)	Oct-Dec	26	8190	0	8190
8	Closure to grazing fire and other biotic interference by engaging watch & ward	Apr-Mar	30	9450	0	9450
9	Fire tracing and control, display board construction, painting / writing, other miscellaneous cost	Jan-Feb	10	3150	360	3510
	TOTAL (1st Year)		217	68355	24800	93155
10	Monitoring & Supervision charge 5% of the total cost			0.00	0	4657.75
	GRAND TOTAL		217	68355.00	24800.00	97812.75
MAINTENANCE OPERATION (2ND YEAR)						
1	Transportation of 18 months old polythene bag seedling in hired truck/tractor from the permanent/mega nursery to planting site including loading and un loading (average lead of 10 Rkm) and stacking the seedling @Rs.6/- per seedling (160 nos.)	July	0	0	960	960
2	Casualty replacement 6 MD	Jun-July	6	1890	0	1890
3	Soil working- 7 MD, 1st weeding-6 MD, 2nd weeding -6 MD and fertilizer application -4 MD	Aug-Oct	23	7245	0	7245
4	Cost of fertilizer @ 50 gms NPK per plant @ Rs.24/- per kg for 1600 plants =Rs.1920.00 Insecticide @ 5 gm per plant for 160 nos. of plants @ Rs. 80 per KG = Rs. 64.00		0	0	1984	1984
5	Maintenance of Soil and Moisture Conservation measures (20% of cost)	Aug-Oct	26	8190	0	8190
6	Fire tracing and control and other miscellaneous cost	Feb-Mar	10	3150	0	3150
7	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	30	9450	0	9450
	TOTAL 2nd Year		95	29925	2944	32869
8	Monitoring & Supervision charge 5% of the total cost			0.00		1643.45
	GRAND TOTAL		95	29925.00	2944.00	34512.45
MAINTENANCE OPERATION (3RD YEAR)						
1	SMC Measures (Renovation)-26 MD and Maintenance of plantation-14 MD as per requirement	Apr-Mar	40	12600.00	0	12600.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5670.00	0	5670.00
	TOTAL 3rd Year		58	18270.00	0	18270.00

	Monitoring & Supervision charge 5% of the total cost			0.00		913.50
	GRAND TOTAL		58	18270.00	0	19183.50
MAINTENANCE OPERATION (4TH YEAR)						
1	SMC Measures 21 MD and Maintenance of plantation 14 MD.	Apr-Mar	35	11025.00	0	11025.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5670.00	0	5670.00
	TOTAL 4th Year		53	16695.00	0	16695.00
	Monitoring & Supervision charge 5% of the total cost			0.00		834.75
	GRAND TOTAL		53	16695.00	0	17529.75
MAINTENANCE OPERATION (5TH YEAR)						
1	SMC Measures- 21 MD and Maintenance of plantation-14 MD.	Apr-Mar	35	11025.00	0	11025.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5670.00	0	5670.00
	TOTAL 5th Year		53	16695.00	0	16695.00
	Monitoring & Supervision charge 5% of the total cost			0.00		834.75
	GRAND TOTAL		53	16695.00	0	17529.75
MAINTENANCE OPERATION (6TH YEAR)						
1	SMC Measures- 21 MD and Maintenance of plantation-14 MD.	Apr-Mar	35	11025.00	0	11025.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5670.00	0	5670.00
	TOTAL 6th Year		53	16695.00	0	16695.00
	Monitoring & Supervision charge 5% of the total cost			0.00		834.75
	GRAND TOTAL		53	16695.00	0	17529.75
MAINTENANCE OPERATION (7TH YEAR)						
1	SMC Measures- 21 MD and Maintenance of plantation-14 MD.	Apr-Mar	35	11025.00	0	11025.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5670.00	0	5670.00
	TOTAL 7th Year		53	16695.00	0	16695.00
	Monitoring & Supervision charge 5% of the total cost			0.00		834.75
	GRAND TOTAL		53	16695.00	0	17529.75
MAINTENANCE OPERATION (8TH YEAR)						
1	SMC Measures- 21 MD and Maintenance of plantation-14 MD.	Apr-Mar	35	11025.00	0	11025.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5670.00	0	5670.00
	TOTAL 8th Year		53	16695.00	0	16695.00
	Monitoring & Supervision charge 5% of the total cost			0.00		834.75
	GRAND TOTAL		53	16695.00	0	17529.75
MAINTENANCE OPERATION (9TH YEAR)						
1	SMC Measures- 21 MD and Maintenance of plantation-14 MD.	Apr-Mar	35	11025.00	0	11025.00

2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5670.00	0	5670.00
TOTAL 9th Year			53	16695.00	0	16695.00
	Monitoring & Supervision charge 5% of the total cost			0.00		834.75
GRAND TOTAL			53	16695.00	0	17529.75
MAINTENANCE OPERATION (10TH YEAR)						
1	SMC Measures- 21 MD and Maintenance of plantation-14 MD.	Apr-Mar	35	11025.00	0	11025.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5670.00	0	5670.00
TOTAL 10th Year			53	16695.00	0	16695.00
2	Monitoring & Supervision charge 5% of the total cost			0.00		834.75
GRAND TOTAL			53	16695.00	0	17529.75

ABSTRACT						
Sl. No.	Year	No. Person Day	Labour cost @ Rs 315.00 per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	(-2) years	219.12	69022.80	20398.40	0	89421.20
2	(-)1 years	19.92	6274.80	1854.41	0	8129.21
3	0th Year	270	85050.0	0	4252.50	89302.00
4	1st Year	217	68355.0	24800.0	4657.75	97812.75
5	2nd Year	95	29925.0	2944.0	1643.45	34512.45
6	3rd Year	58	18270.00	0	913.50	19183.50
7	4th Year	53	16695.00	0	834.75	17529.75
8	5 th Year	53	16695.00	0	834.75	17529.75
9	6 th Year	53	16695.00	0	834.75	17529.75
10	7 th Year	53	16695.00	0	834.75	17529.75
11	8 th Year	53	16695.00	0	834.75	17529.75
12	9 th Year	53	16695.00	0	834.75	17529.75
13	10 th Year	53	16695.00	0	834.75	17529.75
	Total	1250.040	393762.600	49996.810	17310.450	461069.360

P. R. Saha

Divisional Forests Officer
Kalahandi South Division
Divisional Forest Officer
Kalahandi South Division

COST NORM FOR ANR PLANTATION @ 400 PLANTS PER HECTARE
WAGE RATE Rs. 315.00/- PER MD-DAY

A. ESTIMATE OF COST FOR 1.00 HA. UNDER ANR PLANTATION MODEL
0th year (Advance work) Pre-planting operation.

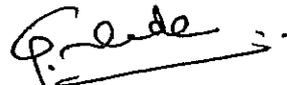
SI No	Item of work	Preferable period of execution	person days	Labour (Rs)	Material (Rs)	Total (Rs)
NURSERY COST						
1	Cost Of raising 18 months old seedling including 10% casualty @440 seedling per hectare.	Before 2(two) year of achievement year	54.78	17255.70	5099.64	22355.34
2	Cost of 18 months old seedling for Casualty Replacement @40 plants per hectare.	Before 01 year of achievement year	4.98	1568.70	463.60	2032.30
Total			59.76	18824.40	5563.24	24387.64
0th year						
1	Survey demarcation and pillar posting, GPS reading with mapping	Nov/Dec	2	630.0	0	630.0
2	Site Preparation	Nov/Dec	2	630.0	0	630.0
3	Silviculture Operation including clearance of weed, climber cutting, high stump cutting, singling of shoots etc.	Jan/Feb	5	1575.0	0	1575.0
4	Contingency and unforeseen expenditure		0	0	165.00	165.00
Sub Total			9	2835.00	165.00	3000.00
5	Monitoring & supervision charges 5% of the total cost					150.00
Total			9	2835.00	165.00	3150.00
1st year						
1	Transportation of 18 months old polythin bag seedling in hired truck/tractor from the permanent/mega nursery to planting site including loading and un loading (average lead of 10 Rkm) and stacking the seedling @Rs.6/- per seedling (440 nos.)	July-Aug	0	0	2640.0	2640.0
2	Pitting 45 cm cube size	Feb/Mar	18	5670.00	0	5670.00
3	Carriage and planting including casualty replacement	Jul/Aug	10	3150.0	0	3150.0
4	Complete weeding, Soilworking, manuring	Aug/Sep	12	3780.0	0	3780.0
5	Cost of vermicompost @200gms/plant @Rs. 20/- per kg=Rs. 1600.00 and Granular insecticide 5 gms/ plant @ Rs. 80 per kg=Rs.160.00	Aug/Sep	0	0	1760.00	1760.00
6	Cost of chemical fertilizer (a) Urea 70 gms/plant in two subsequent doses @ Rs.6 per kg =Rs 168.00 (b) NPK 50 gms/plant @ Rs. 24/- per kg= Rs. 480.00 as basal dos		0	0	648.00	648.00

7	Silvicultural operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	4725.0	0	4725.0
8	Soil Conservation Measures (Staggered trenches of dimension 2 m x 0.5 m x 0.5 m @ 60 nos per ha) or its equivalent	Sep/Oct	20	6300.0	0	6300.0
9	Fireline Tracing and inspection path	Feb/Mar	3	945.0	0	945.0
10	Watch & ward	Aug-Mar	7	2205.0	0	2205.0
11	Contingency and unforeseen expenditure		0	0	319.00	319.00
	Sub Total		85	26775.00	5367.00	32142.00
	Monitoring & supervision charges 5% of the total cost					1607.10
	Total		85	26775.00	5367.00	33749.10
2nd year						
1	Transportation of 18 months old polythene bag seedling in hired truck/tractor from the permanent/mega nursery to planting site including loading and un loading (average lead of 10 Rkm) and stacking the seedling @Rs.6/- per seedling (40 nos.)	July	0	0	240.0	240.0
2	Casualty replacement 2 MD	July-Aug	2	630.0	0	630.0
2	Complete weeding and cultural operations	Sep/Oct	4	1260.0	0	1260.0
3	Soil working and manuring	Sep/Oct	4	1260.0	0	1260.0
4	Cost of fertilizer and insecticide (a) Vermicompost 200 gms/plant @ Rs. 20/ per kg=Rs.1600 (b) Granular insecticide 5 gms/plant for 40 plants 200gms @ Rs. 80/- per kg=Rs.16.00	Sep/Oct	0	0	1616.00	1616.0
5	Fireline Tracing and inspection path	Feb/Mar	1	315.00	0	315.00
6	Soil conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2520.00	0	2520.00
7	Watch & ward (whole year)	Apr-Mar	7	2205.00	0	2205.00
8	Contingency and unforeseen expenditure		0	0	362.00	362.00
	Sub Total		26	8190.00	2218.00	10408.00
	Monitoring & supervision charges 5% of the total cost					520.40
	Total		26	8190.00	2218.00	10928.40
3rd Year						
1	Complete weeding and cultural operations	Aug/Sep	2	630.0	0	630.0
2	Soil working	Aug/Sep	2	630.0	0	630.0
3	Fireline Tracing and inspection path	Feb/Mar	1	315.0	0	315.0
4	Watch & ward (whole year)	Apr-Mar	7	2205.0	0	2205.0
	Sub Total		12	3780.0	0	3780.0
	Monitoring & supervision charges 5% of the total cost					189.00
	Total		12	3780.00	0	3969.00
4th year						
1	Fireline Tracing and inspection path	Feb/Mar	1	315.0	0	315.0
2	Watch & ward and cultural operation	Apr-Mar	2	630.0	0	630.0
	Sub-Total		3	945.00	0	945.00

	Monitoring & supervision charges 5% of the total cost					47.25
	Total			945.00	0	992.25
5th year						
1	Fireline Tracing and inspection path	Feb/Mar	1	315.0	0	315.0
2	Watch & ward and cultural operation	Apr-Mar	2	630.0	0	630.0
	Sub-Total		3	945.00	0	945.00
	Monitoring & supervision charges 5% of the total cost					47.25
	Total		3	945.00	0	992.25
6th year						
1	Fireline Tracing and inspection path	Feb/Mar	1	315.0	0	315.0
2	Watch & ward and cultural operation	Apr-Mar	2	630.0	0	630.0
	Sub-Total		3	945.00	0	945.00
	Monitoring & supervision charges 5% of the total cost					47.25
	Total		3	945.00	0	992.25
7th year						
1	Fireline Tracing and inspection path	Feb/Mar	1	315.0	0	315.0
2	Watch & ward and cultural operation	Apr-Mar	2	630.0	0	630.0
	Sub-Total		3	945.00	0	945.00
	Monitoring & supervision charges 5% of the total cost					47.25
	Total		3	945.00	0	992.25
8th year						
1	Fireline Tracing and inspection path	Feb/Mar	1	315.0	0	315.0
2	Watch & ward and cultural operation	Apr-Mar	2	630.0	0	630.0
	Sub-Total		3	945.00	0	945.00
	Monitoring & supervision charges 5% of the total cost					47.25
	Total		3	945.00	0	992.25
9th year						
1	Fireline Tracing and inspection path	Feb/Mar	1	315.0	0	315.0
2	Watch & ward and cultural operation	Apr-Mar	2	630.0	0	630.0
	Sub-Total		3	945.00	0	945.00
	Monitoring & supervision charges 5% of the total cost					47.25
	Total		3	945.00	0	992.25
10th year						
1	Fireline Tracing and inspection path	Feb/Mar	1	315.0	0	315.0
2	Watch & ward and cultural operation	Apr-Mar	2	630.0	0	630.0
	Sub-Total		3	945.00	0	945.00
	Monitoring & supervision charges 5% of the total cost					47.25
	Total		3	945.00	0	992.25

ABSTRACT

Sl. No.	Year	No. Person Day	Labour cost @ Rs 315.00 per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	(-2) years	54.78	17255.70	5099.64	0	22355.34
2	(-1) years	4.98	1568.70	463.60	0	2032.30
3	0th Year	9	2835.00	165.00	150.00	3150.00
4	1st Year	85	26775.00	5367.00	1607.10	33749.10
5	2nd Year	26	8190.00	2218.00	520.40	10928.40
6	3rd Year	12	3780.00	0	189.00	3969.00
7	4th Year	3	945.00	0	47.25	992.25
8	5 th Year	3	945.00	0	47.25	992.25
9	6 th Year	3	945.00	0	47.25	992.25
10	7 th Year	3	945.00	0	47.25	992.25
11	8 th Year	3	945.00	0	47.25	992.25
12	9 th Year	3	945.00	0	47.25	992.25
13	10 th Year	3	945.00	0	47.25	992.25
	Total	212.76	67019.40	13313.24	2797.25	83129.89


Divisional Forests Officer
Kalahandi South Division
Divisional Forest Officer
Kalahandi South Division

COST NORM FOR ANR PLANTATION @ 800 PLANTS PER HECTARE
WAGE RATE Rs. 315.00/- PER MANDAY

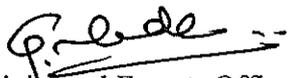
SL. No	Item of Work	Preferable Period of Execution	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
Previous Year (Advance work) Nursery Raising						
1	Cost of raising 18 months old seedling including 10% casualty @ 880 seedling per hectare.	Before 2 (two) year of achievement year	109.56	34511.40	10199.28	44710.68
2	Cost of 18 months old seedling for casualty replacement @ 80 plants per hectare.	Before 1 year of achievement year	9.96	3137.40	927.20	4064.60
Total			119.52	37648.80	11126.48	48775.28
0TH YEAR						
1	Survey, Demarcation and Pillar Posting, GPS Reading with mapping	Nov/Dec	2	630.00	0	630.00
2	Site Preparation	Nov/Dec	2	630.00	0	630.00
3	Silvicultural Operation including clearance of weed, climber cutting, high stump cutting, singling of shoots etc.	Jan/Feb	5	1575.00	0	1575.00
4	Contingency and Unforeseen Expenditures		0	0	230	230
SUB TOTAL			9	2835.00	230	3065.00
Monitoring & Supervision charge 5% of the total cost						153.25
GRAND TOTAL			9	2835.00	230	3218.25
1ST YEAR						
1	Transportation of 18 months old ploythin bag seedling in hired truck/tractor from the permanent/mega nursery to planting site including loading and un loading (average lead of 10 RKM) and stacking the seedling @ Rs. 6/- per seedling (880 nos.)	July-Aug	0	0	5280.00	5280.00
2	Pitting 45 cm cube size	Feb/Mar	36	11340.00	0	11340.00
3	Carriage and planting including casualty replacement	Jul/Aug	20	6300.00	0	6300.00
4	Complete weeding, Soil working, Manuring	Aug/Sep	24	7584.00	0	7584.00
5	Cost of Vermi compost 200 gms/plant @ Rs.20/- per kg = Rs.3200.00 and Granular Insecticide 5 gms/plant @ Rs.80/- per kg. =Rs.320.00	Aug/Sep	0	0	3520	3520
6	Cost of Chemical fertiliser (a) Urea 70 gms/plant in two subsequent doses @ Rs.6/- per kg =Rs.336.00 (b) NPK 50 gms/plant @ Rs.24/- per kg=Rs.960.00 as basal dose	Jul/Aug	0	0	1296	1296
7	Fire line Tracing and Inspection Path	Feb/Mar	3	948.00	0	948.00

8	Silvicultural Operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	4725.00	0	4725.00
9	Soil Conservation Measures (Staggered trenches of dimension 2 m X 0.5 m X 0.5 m @ 60 nos per ha) or its equivalent	Sep/Oct	20	6300.00	0	6300.00
10	Watch & ward	Aug-Mar	7	2205.00	0	2205.00
11	Contingency and Unforeseen Expenditures		0	0	387	387
	SUB TOTAL		125	39375.00	10483.00	49858.00
	Monitoring & Supervision charge 5% of the total cost					2492.90
	GRAND TOTAL		125	39375.00	10483.00	52350.90
2ND YEAR						
1	Transportation of 18 months old polythene bag seedlings in hired truck/tractor from the permanent/mega nursery to planting site including loading and unloading (average lead of 10 RKM) and stacking the seedling @ Rs. 6/- per seedling (80 nos.)	July	0	0	480.00	480.00
2	Casualty Replacement 4 MD	Jul/Aug	4	1260.00	0	1260.00
3	Complete weeding and cultural operations	Sep/Oct	8	2520.00	0	2520.00
4	Soil working and manuring	Sep/Oct	8	2520.00	0	2520.00
5	Cost of Fertilizer and insecticide (a) Vermi compost 200gms/plant @ Rs.20/- per kg = Rs.3200.00 (b) Granular Insecticides 5 gms/plant for 80 plants 400 gms @ Rs.80/- per kg=Rs.32.00	Sep/Oct	0	0	3232	3232.00
6	Fire line Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
7	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2520.00	0	2520.00
8	Watch & ward (whole year)	Apr-March	7	2205.00	0	2205.00
9	Contingency and Unforeseen Expenditures		0	0	313.48	313.48
	SUB TOTAL		36	11340.0	4025.48	15365.48
	Monitoring & Supervision charge 5% of the total cost					768.27
	GRAND TOTAL		36	11340.0	4025.48	16133.75
3RD YEAR						
1	Complete weeding and cultural operations	Aug/Sep	4	1260.00	0	1260.00
2	Soil working	Aug/Sep	4	1260.00	0	1260.00
3	Fire line Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
4	Watch & ward (whole year)	April-Mar	7	2205.00	0	2205.00
	SUB TOTAL		16	5040.00	0	5040.00
	Monitoring & Supervision charge 5% of the total cost					252.00
	GRAND TOTAL		16	5040.00	0	5292.00
4TH YEAR						
1	Fire line Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	April-Mar	2	630.00	0	630.00

	SUB TOTAL		3	945.00	0	945.00
	Monitoring & Supervision charge 5% of the total cost					47.25
	GRAND TOTAL		3	945.00	0	992.25
5th Year						
1	Fire line Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	April-Mar	2	630.00	0	630.00
	SUB TOTAL		3	945.00	0	945.00
	Monitoring & Supervision charge 5% of the total cost					47.25
	GRAND TOTAL		3	945.00	0	992.25
6th Year						
1	Fire line Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	April-Mar	2	630.00	0	630.00
	SUB TOTAL		3	945.00	0	945.00
	Monitoring & Supervision charge 5% of the total cost					47.25
	GRAND TOTAL		3	945.00	0	992.25
7th Year						
1	Fire line Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	April-Mar	2	630.00	0	630.00
	SUB TOTAL		3	945.00	0	945.00
	Monitoring & Supervision charge 5% of the total cost					47.25
	GRAND TOTAL		3	945.00	0	992.25
8th Year						
1	Fire line Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	April-Mar	2	630.00	0	630.00
	SUB TOTAL		3	945.00	0	945.00
	Monitoring & Supervision charge 5% of the total cost					47.25
	GRAND TOTAL		3	945.00	0	992.25
9th Year						
1	Fire line Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	April-Mar	2	630.00	0	630.00
	SUB TOTAL		3	945.00	0	945.00
	Monitoring & Supervision charge 5% of the total cost					47.25
	GRAND TOTAL		3	945.00	0	992.25
10th Year						
1	Fire line Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	April-Mar	2	630.00	0	630.00
	SUB TOTAL		3	945.00	0	945.00
	Monitoring & Supervision charge 5% of the total cost					47.25
	GRAND TOTAL		3	945.00	0	992.25

ABSTRACT

SL. No	Item of Work	No. Person Day	Labour cost @ Rs 315.00/-per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	(-2) years	109.56	34511.40	10199.28	0	44710.68
2	(-1) years	9.96	3137.40	927.20	0	4064.60
3	0th Year	9	2835.00	230	153.25	3218.25
4	1 st Year	125	39375.00	10483.00	2492.90	52350.90
5	2nd Year	36	11340.0	4025.48	768.27	16133.75
6	3rd Year	16	5040.00	0	252.00	5292.00
7	4th Year	3	945.00	0	47.25	992.25
8	5 th Year	3	945.00	0	47.25	992.25
9	6 th Year	3	945.00	0	47.25	992.25
10	7 th Year	3	945.00	0	47.25	992.25
11	8 th Year	3	945.00	0	47.25	992.25
12	9 th Year	3	945.00	0	47.25	992.25
13	10 th Year	3	945.00	0	47.25	992.25
TOTAL		326.52	102853.80	25864.96	3997.17	132715.93


 Divisional Forests Officer
 Kalahandi South Division
 Divisional Forest Officer
 Kalahandi South Division

ANNEXURE-G

COST NORM FOR AIDED NATURAL REGENERATION (ANR without gap) PER HECTARE

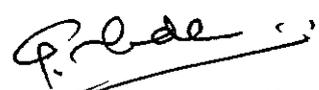
Wage rate Rs 315.00 per Day.

Sl. No.	Item of Work	Preferable period of Execution	Person days	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
0TH YEAR						
1	Survey, Demarcation and Pillar Posting, GPS Reading with mapping	Nov/Dec	2	630.00	0	630.00
2	Site Preparation	Nov/Dec	2	630.00	0	630.00
3	Cutting of high stumps	Nov/Dec	5	1575.00		1575.00
	SUB TOTAL		9	2835.00	0	2835.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		141.75
	GRAND TOTAL		9	2835.00	0	2976.75
1ST YEAR OPERATION						
1	Silvicultural Operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	4725.00	0	4725.00
2	Soil Conservation Measures (Staggered trenches of dimension 2 m X 0.5 m X 0.5 m @ 60 nos per ha) or its equivalent	Sep/Oct	20	6300.00	0	6300.00
3	Fireline Tracing and Inspection Path	Feb/Mar	3	945.00	0	945.00
4	Watch & ward	Aug-Mar	5	1575.00	0	1575.00
5	Contingency and Unforeseen Expenditures		0	0.00	500.00	500.00
	SUB TOTAL		43	13545.00	500.00	14045.00
6	Monitoring & Supervision charge 5% of the total cost			0.00		702.25
	GRAND TOTAL		43	13545.00	500.00	14747.25
2ND YEAR OPERATION						
1	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2520.00	0	2520.00
2	Fireline Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
3	Watch & ward (whole year)	Apr-Mar	7	2205.00	0	2205.00
4	Contingency and Unforeseen Expenditures		0	0.00	300.00	300.00
	SUB TOTAL		16	5056.00	300.00	5356.00
5	Monitoring & Supervision charge 5% of the total cost			0.00		267.80
	GRAND TOTAL		16	5056.00	300.00	5623.80
3RD YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00

2	Watch & ward (whole year)	Apr-Mar	7	2205.00	0	2205.00
3	Contingency and Unforeseen Expenditures		0	0.00	300.00	300.00
	SUB TOTAL		8	2520.00	300.00	2820.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		141.00
	GRAND TOTAL		8	2520.00	300.00	2961.00
4TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	Apr-Mar	2	630.00	0	630.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	945.00	100.00	1045.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		52.25
	GRAND TOTAL		3	945.00	100.00	1097.25
5TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	Apr-Mar	2	630.00	0	630.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	945.00	100.00	1045.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		52.25
	GRAND TOTAL		3	945.00	100.00	1097.25
6TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	Apr-Mar	2	630.00	0	630.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	945.00	100.00	1045.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		52.25
	GRAND TOTAL		3	945.00	100.00	1097.25
7TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	Apr-Mar	2	630.00	0	630.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	945.00	100.00	1045.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		52.25
	GRAND TOTAL		3	945.00	100.00	1097.25
8TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00

2	Watch & ward and cultural operations	Apr-Mar	2	630.00	0	630.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	945.00	100.00	1045.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		52.25
	GRAND TOTAL		3	945.00	100.00	1097.25
9TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	Apr-Mar	2	630.00	0	630.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	945.00	100.00	1045.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		52.25
	GRAND TOTAL		3	945.00	100.00	1097.25
10TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315.00	0	315.00
2	Watch & ward and cultural operations	Apr-Mar	2	630.00	0	630.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	945.00	100.00	1045.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		52.25
	GRAND TOTAL		3	945.00	100.00	1097.25

ABSTRACT						
SL. No.	Item of Work	No. Person Day	Labour cost @ Rs 315.00/- per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	0th Year operation	9	2835.00	0	141.75	2976.75
2	1st Year operation	43	13545.00	500.00	702.25	14747.25
3	2nd Year operation	16	5056.00	300.00	267.80	5623.80
4	3rd Year operation	8	2520.00	300.00	141.00	2961.00
5	4th Year operation	3	945.00	100.00	52.25	1097.25
6	5th Year operation	3	945.00	100.00	52.25	1097.25
7	6th Year operation	3	945.00	100.00	52.25	1097.25
8	7th Year operation	3	945.00	100.00	52.25	1097.25
9	8th Year operation	3	945.00	100.00	52.25	1097.25
10	9th year operation	3	945.00	100.00	52.25	1097.25
11	10th year operation	3	945.00	100.00	52.25	1097.25
	TOTAL	97.00	30571.00	1800.00	1618.55	33989.55


 Divisional Forests Officer
 Kalahandi South Division
 Divisional Forest Officer
 Kalahandi South Division

Annexure-(H)**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.

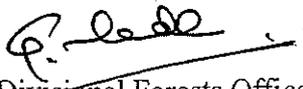
Analysis of Rate

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	315.00	13545.00
Mulia			270.90
2% sundries and T & P etc.	Total		13815.90
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	507.96	507.96
Mason (Special)	0.17	465.00	79.05
Stone packer	0.35	355.00	124.25
Mulia	1.04	315.00	327.60
2% sundries, T & P etc.			20.78
	Total		1059.64

**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	200.00	200.00
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	1059.64	7629.41
Total			7829.41

Cost per running meter of L.B.C.D of 90 cm height = Rs 7829.41/2.5= Rs. 3131.764 or say **Rs.3200/-**


 Divisional Forests Officer
 Kalahandi South Division
 Divisional Forest Officer
 Kalahandi South Division

ESTIMATE FOR BARBED WIRE FENCE

7 strands straight + 2 diagonal strands of 2 ply barbed wire on RCC posts fixed at 2.5 mtr intervals.

Two struts at every 10th pillar

Fence post size Length-8ft, Bottom width 6"x6", Top width-4"x4" Reinforced with 6mm rods

Minimum wage rate Rs. 315.00 per day for unskilled labourer

ANALYSIS OF RATE

1	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.)			
	Mulia	43	315.00	13545.00
	2% sundries and T & P etc.			270.90
	Total			13815.90
2	Cement concrete (1:4:8) with 4 cm hard granite metal including lying, compacting, curing with all cost, conveyance, royalty of materials etc. (per 1 cum)			
	HG metal	0.96 cum	Rs 1223.40	1174.64
	Sand	0.48 cum	Rs 443.00	212.62
	Cement	1.72 qtl	Rs 630.00	1083.60
	Mason 2 nd Class	0.18	Rs 355.00	63.90
	Man mulia	1.80	Rs 315.00	567.00
	Woman mulia	1.40	Rs 315.00	441.00
	Man mulia	0.70	Rs 315.00	220.50
	Total			3763.26
	3	Cement Concrete (1:2:4) with 12 mm size C.B.H.G chips including cost, carriage & royalty etc complete		
HG chips 12 mm		0.96 cum	Rs 1581.40	1518.14
Sand		0.45 cum	Rs 443.42	199.53
Cement		3.23 qtl	Rs 630.00	2034.90
Mason 2 nd Class		0.60	Rs 355.00	213.00
Mulia		4.6	Rs 315.00	1449.00
Total				5414.57
4	Cutting, bending, binding, straightening and tying the grills and placing in position including cost of M.S Tor Steel and binding wire etc (Ref-A/R-2006 item No. 9 Page 52). Taking output for 1 quintal			
	Cost & carriage of HYSD Steel including 5% for wastage & overlapping	1.05 qtl	Rs 5500.00	5775.00
	Binding wire	8 kg	Rs 80/kg	640.00
	Labour for cutting, bending, shifting to site, tying & placing in position Mate	0.44	405.00	178.20
	Blacksmith Special	4	465.00	1860.00
	Semiskilled mulia	8	355.00	2840.00
	Total			11293.20
1.	02 ply barbed wire (5 Rmt per kg) 7 strand x 1000 Mt =7000Mt			

	2 Diagonal strand = $2 \times \sqrt{(6.5')^2 + (8.2')^2}$ =21.00 ft x 400 nos=8400 ft or	= 2 x 10.50 ft =2560Mt =9560Mt
	Total	
	Cost per KM=9560/5=1912 Kg @ Rs.80/Kg	Rs.1, 52,960.00
	Construction of RCC pillars of size- Length—8ft, Bottom width 6"x6", Top width-4"x4" Reinforced with 6mm rods with proper curing $\frac{8' \times 6'' + 4''}{2} \times \frac{6'' + 4''}{2} = 1.34 \text{ cft}$ or 0.038 cum	
2.	i) Cost of c.c. work 1:2:4=0.038 cum @5414.57/cum	= 205.75
	ii) Cost of rod including cutting, bending & binding 0.038x0.9qtl=0.0342 qtl@ Rs. 11293.20/qtl.	= 386.23
	iv) Contingency (15%) including Curing, stacking, provision of hooks etc.	= 88.80 ----- Rs.680.78
	<u>Requirement of pillars per KM-</u> Spacing=2.5mtx2.5mt Requirement=1000mt/2.5mt Strut pillar in every 10 th pillar = (400/10)x2	= 400 = 80 480 Nos
	Cost of pillars per Kilometer= 480@ Rs 680.78	Rs.3, 26,774.40
	Fitting fixing of RCC pillars in position with hbg metal (4cm) in C.M (1:4:8)	
3.	i) Digging of pits 1.5'x1.5'x1.5'=3.375cft/pit for 480 pits, 480x3, 375=1620 cft or 45.86 cum @ Rs. 13815.90/100cum	=Rs 6335.97
	ii) Fixing of pillars with 4cm hbg metals in C.M 1:4:8 pit size-1.5'x1.5'x1.5' Deduct 1/3 rd of butt of pillar i.e.3.375/3 Total c.c. work per pillar For 480 pillars=480x2.25=1080cft or 30.577 cum @ Rs. 3763.26/cum	=3.375 cft = (-) 1.125 cft 2.25cft = Rs.1,15,069.20
4.	Labour for straightening the barbed wire and fixing & clipping with pillars 70M.d per km@ Rs 315.00 per manday	= Rs.22050.00
5.	Carriage of Barbed wire & pillars to work site @Rs.1000/tl. and cost of loading & unloading within 5 km distance Approximately 10 tld @ 800/tld	= Rs.18, 000.00
6.	Provision of one Iron Gate of size (4' x 5') on LS	= Rs. 7,500.00
	Total	= Rs. 6, 48,689.57
	Labour Cess 1%	= Rs. 6486.89
	Expenditure per 1 km of barbed wire fencing	= Rs.6, 55,176.46
7.	Expenditure towards maintenance for 3 years (3 rd , 6 th & 9 th year) @ 2% of cost per rkm = 3 x 2% x Rs. 6,55,176.46	= Rs.39,310.59
	Expenditure per 1 km of barbed wire fencing including maintenance	= Rs.6,94,487.05 Or Say Rs 6,94,500.00

P. Neode
Divisional Forests Officer
Kalahandi South Division
Divisional Forest Officer
Kalahandi South Division

TOTAL COST OF THE COMPENSATORY AFFORESTATION SCHEME

Sl. No.	Item of Work	Total Estimated Cost in Rs.
1	Barbed wire fence around plantation sites = Rs 6, 94,500/- X 25.99 km	1,80,50,055.00
2	Bald Hill plantation over 219.1804 ha. X Rs.461069.36/-	10,10,57,366.75
3	ANR with gap planting of 400 plants per ha 77.743 ha X Rs83129.89/-	64,62,767.04
4	ANR with gap planting of 800 plants per ha 58.859 ha X Rs132715.93/-	78,11,526.92
5	ANR without 46 ha x Rs. 33989.55/-	15,63,519.30
6	Loose boulder check dam over 2000 meter @ Rs. 3200 per meter	64,00,000.00
	Sub-Total	14,13,45,235.01
6	Cost escalation in future 20%	2,82,69,047.00
	Total	16,96,14,282.01 or say 16,96,14,300.00

(Rupees Sixteen crore ninety six lakh fourteen thousand three hundred) only.

P. Nanda

Divisional Forest Officer,
Kalahandi South Division
Divisional Forest Officer
Kalahandi South Division

Checked by me

A.P.

Asst. Conservator of Forest
Kalahandi (South) Division

Technically Approved

P. Nanda

Divisional Forest Officer,
Kalahandi South Division
Divisional Forest Officer
Kalahandi South Division



STATE FOREST HEADQUARTERS
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS & HoFF, ODISHA
ARANYA BHAWAN, CHANDRASEKHARPUR, BHUBANESWAR

E-mail: nodal.pccfhoff@odisha.gov.in

Memo No. 2602 /9F (MG) - 89/2015
Dated, Bhubaneswar the 08th February' 2022

To

✓ The DFO, Keonjhar Forest Division

Sub: Diversion of balance forest land of 401.7824 ha including 7.2807 ha of safety zone out of total forest land of 519.7472 ha within total Mining Lease area of 618.576 ha for Iron Ore Mining in Gandhamardan (Block-A) Mining Lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd during 2nd Renewal of Mining Lease period – Financial outlay of CA Scheme @Rs 315/- per manday.

Ref: This office Memo No. 11886 dated 20.07.2021 and your Memo No. 553 dated 24.01.2022.

In inviting a reference to the above cited memos on the captioned subject, the revised financial outlay for CA Scheme over an area of 401.7824 ha of non-forest Government land identified in village Khamarpadar under Thuamul-Rampur Tahasil of Kalahandi District in Kalahandi(South) Forest Division against proposed diversion of the above mentioned project has been technically approved for Rs 17,38,13,700/- (Rupees seventeen crores thirty eight lakhs thirteen thousand and seven hundred) only by PCCF(Forest Diversion and Nodal Officer, FC Act) at current wage rate of Rs 315/- per manday is enclosed.

You are requested to raise demand on the user agency for payment of the amount through web portal of MoEF & CC and submit the deposit particulars of the amount paid. Further, you are also requested to furnish the statement of funds towards compensatory levies deposited by the user agency in the prescribed CAMPA format duly signed by you alongwith the updated Stage-I compliance.

Encl - Revised financial outlay

Conservator of Forests (Nodal)

Memo No. _____ Dt _____

Copy forwarded to the RCCF, Rourkela Circle for information & necessary action.

Conservator of Forests (Nodal)

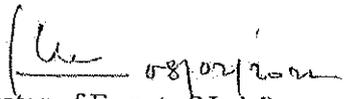
P.T.O

1/21

Memo No. _____ Dt

Copy alongwith a copy of the revised financial outlay forwarded to the DFO, Kalahandi (South) Forest Division for information & necessary action.

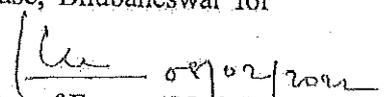
Encl - Revised financial outlay


Conservator of Forests (Nodal)

Memo No.

/Dt.

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


Conservator of Forests (Nodal)

Revised financial Outlay for **Compensatory Afforestation Scheme** over an area of **401.7824 ha** of non-forest Govt. land identified in **Village Khamarpadar** under **Thuamul-Rampur Tahasil** in **Kalahandi District** and coming under **Jaipatna Range** of **Kalahandi South Division** against forest land to be diverted for **Gandhamardan Block-'A' Iron Ore Mines** of **M/s OMC Ltd.**

(Wage Rate @ Rs.315/- per MD)

Sl. No.	Description	Amount (Rs.)
1.	Cost of Bald Hill plantation @ 1600 plants per ha with 18 month old seedling over 219.1804 ha excluding cost of fencing @ Rs.4,30,100.37 per ha with 10 years maintenance	9,42,69,571.00
2.	Cost of ANR with gap plantation over 58.859 ha @ 800 plants/ ha with 18 month old seedling @Rs.1,16,390.61 per ha with 10 years maintenance	68,50,635.00
3.	Cost of ANR with gap plantation over 77.7430 ha @ 400 plants/ ha with 18 month old seedling @ Rs.75,039.93 per ha with 10 years maintenance	58,33,829.00
4.	Cost of ANR without gap over 46 ha @ Rs.33,972.75 per ha with 10 years maintenance	15,62,747.00
	Total	10,85,16,782.00
5.	Add Escalation Cost (20%)	2,17,03,356.00
6.	Cost of Angle Iron & Chain Link wire mesh fencing over 25.99 Kms @ Rs.1677.32 per RMT with 10 years maintenance (As per approved one-time cost norm for CA)	4,35,93,547.00
	Grand Total	17,38,13,685.00 Or rounded off to 17,38,13,700.00

(Rupees Seventeen Crores thirty eight lakhs thirteen thousand seven hundred) only

Approved

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

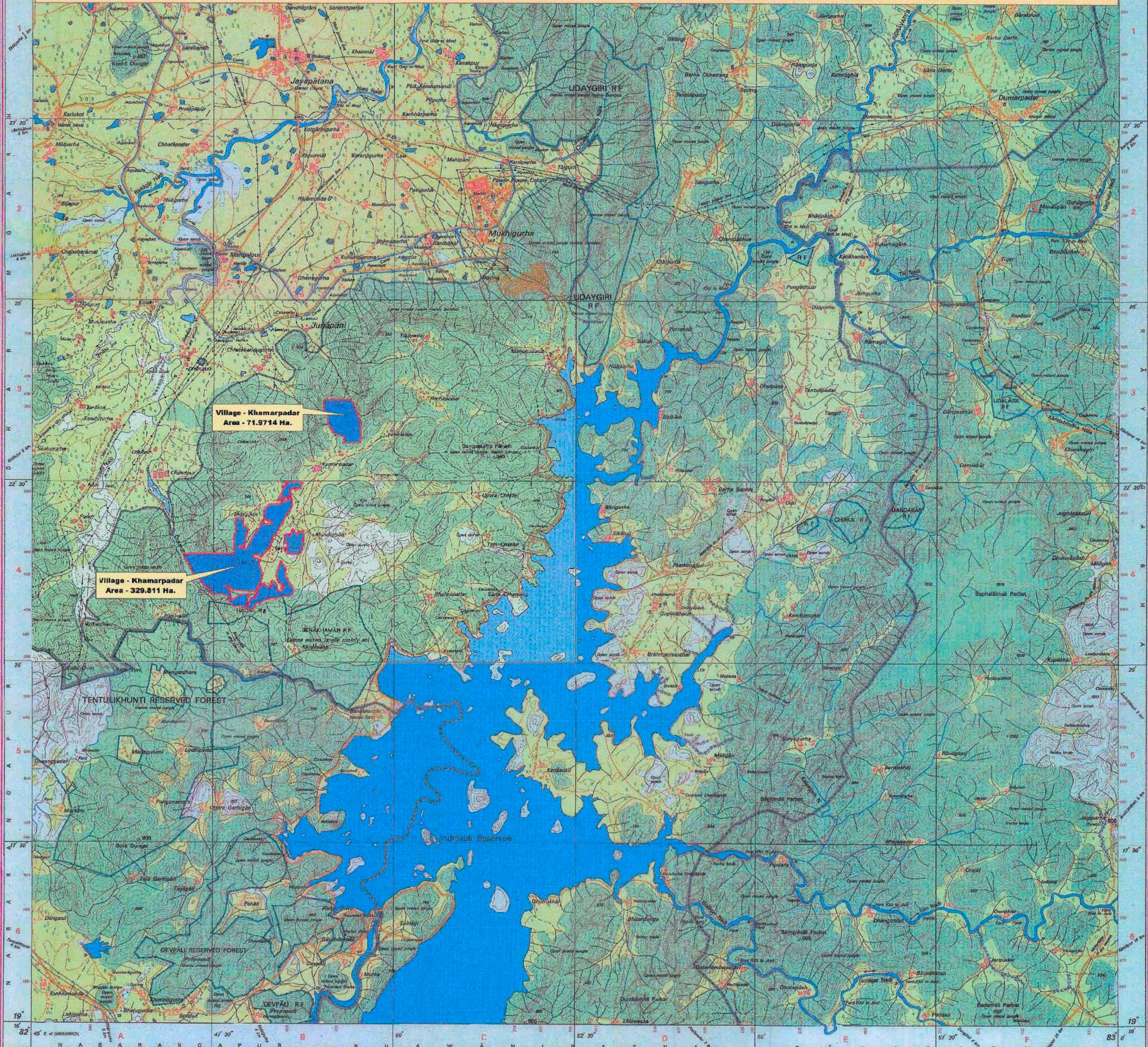


No. E44E15

Scale 1:50,000

E44E10	E44E14	E44F2
E44E11	E44E15	E44F3
E44E12	E44E16	E44F4

MAP SHOWING NON-FOREST GOVERNMENT LAND FOR RAISING COMPENSATORY AFFORESTATION IN VILLAGE KHAMARPADAR UNDER THUAMULRAMPUR TAHASIL IN LIEU OF THE FOREST LAND PROPOSED FOR DIVERSION FOR MINING AND ANCILLARY USE AGAINST GANDHAMARDAN BLOCK-A M.L. LOCATED IN KEONJHAR DISTRICT OF M/S ODISHA MINING CORPORATION LIMITED.



भारतीय सर्वेक्षण विभाग SURVEY OF INDIA
1st Edition 2005. PRICE ₹ 94/- Price : Rs. 50/-

CONVENTIONAL SYMBOLS

Express Highway: with toll, with bridge, with distance stone	
Roads, metalled: according to importance	
Roads, double carriage-way: according to importance	
Unmetalled road, Cart-track, Foot-track with pass, Foot-path	
Stream: with track to bed, undrained, Canal	
Dam: masonry or rock-filled, earthwork, Wall	
River: dry with water channel, with island or rocks, Tide river	
Submerged rock, Shoal, Swam, Reeds	
Wells: hand, unlined, Tubewell, Spring, Tank: perennial, dry	
Embankment: road or rail, bank, Brown ground	
Railway, broad gauge: double, single with distance stone, 50	
Miscellaneous: line or tramway, tele, Cutting with hand	
Contours with spot-heights, Rocky slopes, Cliff	
Sand features: (1) fine, (2) sand, (3) talus, (4) shingle, (5) pebbles	
Towns or Villages: inhabited, deserted, Flat	
Habit: permanent, temporary, Tower, Antenna	
Temples, Dharm, Church, Mosque, Idgah, Tomb, Ganga	
Lighthouses, Lightship, Buoy, Lighted, unlighted, Anchorage	
Mine, Vind on brick, Grass, Sown	
Palms: palm-tree, other, Plantain, Coffee, Rubber, Other trees	
Areas: cultivated, wooded, Surveyed trees	
Boundary: international	
State: discontiguous, undemarcated	
Deviation: stationing, signal or light, forest	
Boundary pillars: surveyed, uncoloured	
Height: triangulation station, point, approximate	
Bench-mark, spot-height, tertiary, canal	
Post office, Telegraph office, Overhead line	
Rail house or inspection bungalow, Clinic house, Police station	
Camping ground, Forest: reserved, protected	
Survey name, administrative locality or tribal	
Hospital, Dispensary, Veterinary hospital	
Aerodrome, Helipad, Tower, air	
Power line with pylons surveyed, with poles unsurveyed	

AREA PROPOSED FOR COMPENSATORY AFFORESTATION

NOTES :-
 Heights are in metres and above Indian mean sea level.
 Contours are approximate.
 A relative height, or, represents the approximate height in metres between the top and bottom of a steep slope.
 The forest boundaries have been surveyed as possible but by the forest officials on the ground, but have not been verified by the forest authorities.
 Jhum or temporarily cultivated areas occur throughout the jungle, they are normally abandoned after 2-3 years and are not shown.
 Hand Point is shown as - - - - -

COMPILATION INDEX
 A. Compiled from 1:25,000 survey 1981-82.
 Updated for major details during 2004-05.

Projection - UTM Datum - WGS 84
 Magnetic Variation from True North about 1° West in 2005.
 (Annual change negligible).
 Scale 1:50,000
 500 m to 1 cm
 2 cm to 1 km
 METRE 0 500 1 2 3 Kilometres
 CONTOUR INTERVAL 20 METRES

For further details about this map, please contact
 Director,
 Orissa Geo-Spatial Data Centre,
 Survey of India,
 Survey Bhawan, PO - R R Laboratory,
 Bhubaneswar.
 Fax : 0674 - 2301419

WEBSITE - www.surveyofindia.gov.in

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 Divisional Forest Officer Revenue Inspector
 Katabandi South Division
 Jaipatna Range
 Forester
 Benakhamar Section
 Tahasildar
 Thuamul Rampur

DETAILS OF LAND SCHEDULE ALLOTTED FOR COMPENSATORY AFFORESTATION

Village	State No.	Plot No.	Total Area of (Gajal)	Area reserved (Gajal)	Remarks	North	South	East	West	Remarks (Plot/Port)
THUAMULEAMPUR KALAHANDI Ahal Village	540	851	5.50	5.50	Open	975.820	991	983	811.282	Part
		977	18.60	18.60	Open	106.076	1409.1405	1052.505	956	Part
		978	28.02	28.02	Open	785	977	971.210	788	Part
		983	5.50	5.50	Open	917.979	977	976.091	979	Part
		985	18.55	18.55	Open	1003.817	1404	991	977	Part
		987	4.8	4.8	Open	1189.241	989	991	100.089	Part
		991	25.00	25.00	Open	811	1106.1403	996.1197	100.089	Part
		992	6.48	6.48	Open	992	1397	1398	991	Part
		993	37.44	37.44	Open	1095.095	993.1381	1314	991.581	Part
		998	13.47	13.47	Open	1003	991	1256	999.881	Part
		999	15.00	15.00	Open	1053	988	991	976.617	Part
		1003	23.86	19.15	Open	1003.119	999.993	1076	1000	Part
		1004	13.41	5.80	Open	84	1007	1000	983	Part
		1076	14.32	14.32	Open	772	1009	1008	1049	Part
		1081	18.27	9.77	Open	1088.206	1210	1048.104	1219	Part
		1201	7.81	6.84	Open	1281.5919	1284	1282	1222	Part
		1204	11.13	10.83	Open	1285.1267	1327	1328	1044	Part
		1327	29.21	26.31	Open	1201	1307	1266	1047	Part
		1397	2.76	4.11	Open	265	1006	1002	981	Part
		1398	12.19	2.33	Open	991	1402.1201	1276	1011	Part
		1399	11.50	11.24	Open	986	1411	1413	1054	Part
		1401	50.00	10.00	Open	97.708	1408	1401	1402	Part
		1402	50.00	10.00	Open	97.708	1408	1401	1402	Part
		1404	14.35	14.35	Open	975.074	1407	1400	1401	Part
		1405	18.41	18.41	Open	1404.1405	1407	1400	1401	Part
		1406	17.81	17.81	Open	1406	1400	1401	1401	Part
		1409	27.87	27.87	Open	1406	1400	1401	1401	Part
		1410	16.50	16.13	Open	1411	1403.1420	1401	1408	Part
		1411	22.75	17.18	Open	1281	1409	1411	1408	Part
		1412	2.86	3.69	Open	1277	1419	1420	1412	Part
1417	1.12	2.53	Open	1416.1415	1410	1401	1409	Part		
1419	1.30	2.70	Open	1416.1419	1401	1401	1409	Part		
1421	50.00	20.00	Open	1421	1421	1421	1421	Part		
1464	35.30	32.38	Open	1427.1419	1421	1421	1421	Part		
1468	20.00	18.00	Open	1468.1468	1468	1468	1468	Part		
1481	3.47	3.00	Open	1507.1482	1575	1575	1575	Part		
1577	6.78	6.78	Open	1571	1500	1500	1500	Part		
1580	4.30	3.80	Open	1553	1500	1500	1554	Part		
1582	11.20	11.23	Open	1580.1584	1584	1584	1571	Part		
1584	17.73	17.23	Open	1581.1587	1583	1581.23	1560	Part		
1592	14.02	14.02	Open	1592.1592	1592	1592	1592	Part		
1593	13.71	8.81	Open	1593.1593	1593	1593	1593	Part		
1594	15.00	15.50	Open	1553	1500	1500	1526	Part		
Total: 814.98 Acre of 329.811 ha										

With map/plan from 1944 drawn and as shown clearly published in accordance with sub rule 63 of O.P.S. Rules, 1956

S.K. Das
District Officer

ଖାରପଦର, ପିଟ ନଂ ୫ ଏବଂ ଥୁଆମୁଲେମ୍ପୁର ଟାହାସିଲ କାଳାହାଣ୍ଡି ଜିଲ୍ଲା କନ୍ଧାମାରପାଡ଼ାର SHEET No 5 ଥୁଆମୁଲେମ୍ପୁର ନଂ ୫୪ ଜିଲ୍ଲା କନ୍ଧାମାରପାଡ଼ାର

PLAN SHOWING NON-FOREST GOVT. LAND FOR RAISING COMPENSATORY AFFORESTATION IN VILLAGE KHAMARPADAR UNDER THUAMULEAMPUR TAHASIL OF KALAHANDI DISTRICT IN LIEU OF THE FOREST LAND PROPOSED FOR DIVERSION AGAINST GANDHAMARDAN (BLOCK-A) IRON ORE MINES LOCATED IN KEONJHAR DISTRICT OF M/s ODISHA MINING CORPORATION LIMITED.

SCALE: 16"=1Mile

1. Certified that the above non-forest Government land is in compact patches and in continuity fit for compensatory plantation (ANR: 276.811.2 ha & Block: 53.80 ha) and are more than 4.3 ha area patch.
2. Certified that these lands are not coming under reserve category like Gucha, Streams, village forest etc.
3. These areas have adequate soil depth to sustain plantation and are unobstructed from physical point of view.
4. Certified that the Government land are found suitable for plantation.
5. Certified that these lands are free from encroachments 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 DLC 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 CIMC Ltd for using the same towards Compensatory Afforestation.

REVENUE INSPECTOR
Jubarpur

FORESTER
Jubarpur

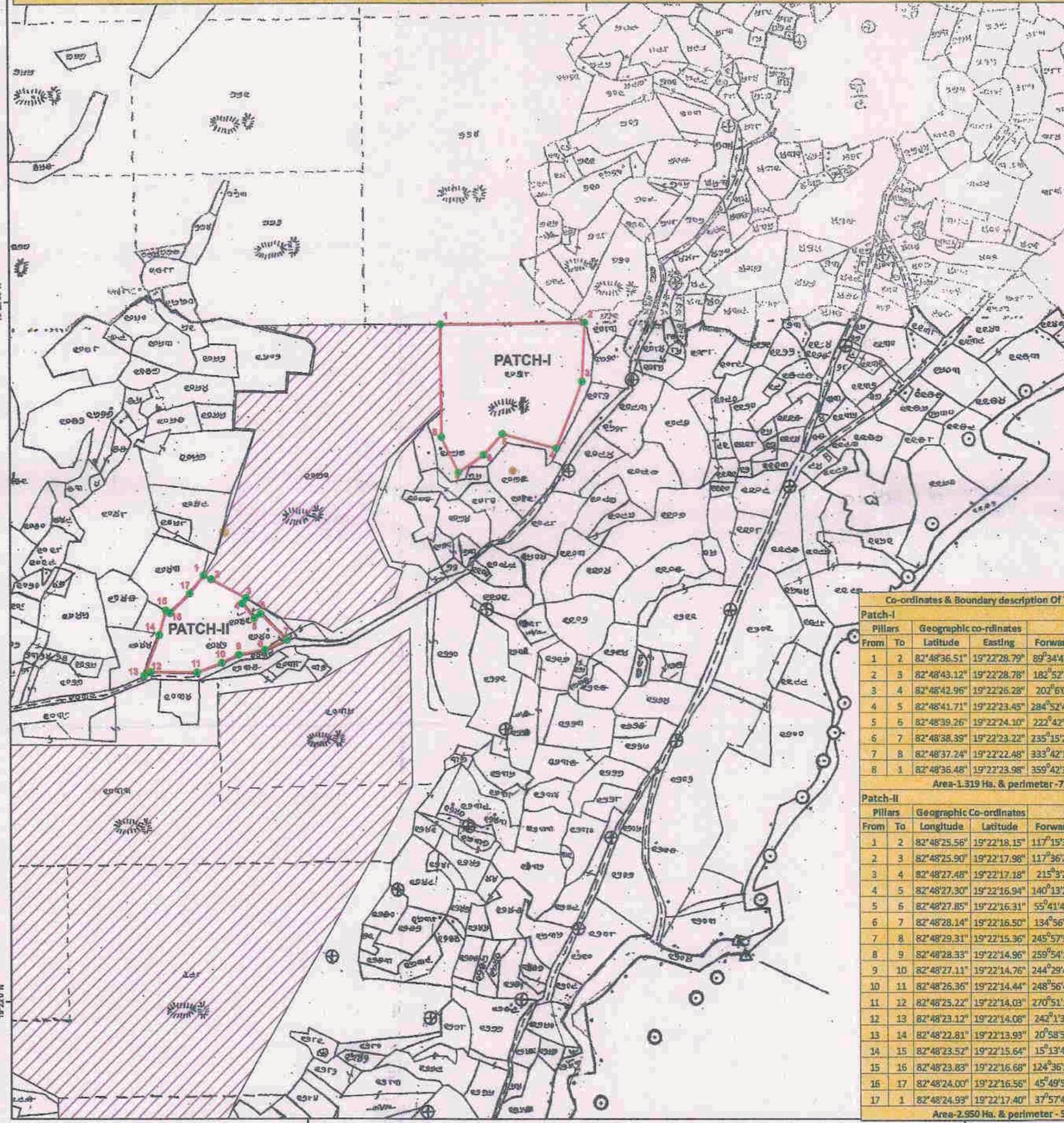
TAHASILDAR
Jubarpur

DIVISIONAL FOREST OFFICER
Kalahandi South Division

S.K. Das
Dy. General Manager (Gen)
Power of Attorney Holder
Odisha Mining Corporation Ltd.
Bhubaneswar-751001

INDEX
Boundary line

PLAN SHOWING NON-FOREST GOVERNMENT LAND FOR RAISING COMPENSATORY AFFORESTATION IN VILLAGE KHAMARPADAR UNDER THUAMULRAMPUR TAHASIL IN LIEU OF THE FOREST LAND PROPOSED FOR DIVERSION FOR MINING AND ANCILLARY USE AGAINST GANDHAMARDAN BLOCK-A M.L. LOCATED IN KEONJHAR DISTRICT OF M/S ODISHA MINING CORPORATION LIMITED.



LAND SCHEDULE & BOUNDARY DESCRIPTION OF COMPENSATORY AFFORESTATION LAND											
Tahasil	Village	Khata No	Plot No.	Total area of the plot (Ac)	Area considered	Kissam	Boundary description				Remarks
							North	South	East	West	
THUAMUL RAMPUR	KHAMARPADAR	242 (AAA)	1042	3.26	3.26	Dangar	1070	1039 (Road)	1040, 1041	1043, 1044	Full
			1078	8.23	7.29	Dangar	724	Part of 1078	Part of 1078	1070	Part

Area considered 10.55 Acres or 4.269 Ha.

1. Certified that the above non-forest Government land is in compact patches and in continuity fit for compensatory plantation and are more than 4.0 ha area patch.
2. Certified that these lands are not coming under reserve category like Gochar, Smasana (burning ghat), village forest etc.
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 are not coming under DLC land and forest land classification.
8. Certified that the above land are 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.

Revenue Inspector, Khamarpadar
 Forest Officer, Benakhamar section
 Range Officer, Jampatna Range
 Tahasil Officer, Khamarpadar

Co-ordinates & Boundary description Of The CA Land proposed						
Patch-I		Geographic co-ordinates		Bearing		Distance in
From	To	Latitude	Easting	Forward	Backward	Meters
1	2	82°48'36.51"	19°22'28.79"	89°34'42"	269°34'42"	193.03
2	3	82°48'43.12"	19°22'28.78"	182°52'2"	2°52'2"	76.86
3	4	82°48'42.96"	19°22'26.28"	202°6'0"	22°6'0"	94.24
4	5	82°48'41.71"	19°22'23.45"	284°52'44"	104°52'44"	74.19
5	6	82°48'39.26"	19°22'24.10"	222°42'9"	42°42'9"	37.10
6	7	82°48'38.39"	19°22'23.22"	235°15'28"	55°15'28"	40.70
7	8	82°48'37.24"	19°22'22.48"	333°42'18"	153°42'18"	51.19
8	1	82°48'36.48"	19°22'23.96"	359°42'35"	179°42'35"	148.17
Area-1.319 Ha. & perimeter -715.47 Meter						
Patch-II		Geographic Co-ordinates		Bearing		Distance in
From	To	Longitude	Latitude	Forward	Backward	Meters
1	2	82°48'25.56"	19°22'18.15"	117°15'38"	297°15'38"	11.35
2	3	82°48'25.90"	19°22'17.96"	117°36'26"	297°36'26"	52.13
3	4	82°48'27.48"	19°22'17.18"	215°3'2"	355°3'2"	8.85
4	5	82°48'27.30"	19°22'16.94"	140°13'28"	320°13'28"	25.15
5	6	82°48'27.85"	19°22'16.31"	55°41'48"	235°41'48"	10.28
6	7	82°48'28.14"	19°22'16.50"	134°56'3"	314°56'3"	48.83
7	8	82°48'29.31"	19°22'15.36"	245°57'50"	65°57'50"	31.38
8	9	82°48'28.33"	19°22'14.96"	259°54'15"	79°54'15"	36.00
9	10	82°48'27.11"	19°22'14.76"	244°29'45"	84°29'45"	23.97
10	11	82°48'26.36"	19°22'14.44"	248°56'40"	88°56'40"	35.68
11	12	82°48'25.22"	19°22'14.03"	270°51'12"	90°51'12"	61.28
12	13	82°48'23.12"	19°22'14.06"	242°1'31"	62°1'31"	10.29
13	14	82°48'22.81"	19°22'13.93"	20°58'58"	200°58'58"	56.58
14	15	82°48'23.52"	19°22'15.64"	15°13'42"	195°13'42"	33.34
15	16	82°48'23.83"	19°22'16.68"	124°36'57"	304°36'57"	6.21
16	17	82°48'24.00"	19°22'16.56"	45°49'53"	225°49'53"	37.10
17	1	82°48'24.93"	19°22'17.40"	37°57'40"	217°57'40"	29.74
Area-2.950 Ha. & perimeter -518.15 Meter						

ନୌଜା ଖମାରପଦର, ସିଟ ନଂ ୬
 ଥାନା ଥୁଆମୁଲ ରାମପୁର ନଂ ୪୦
 କଳାହାଣ୍ଡି ଥୁଆମୁଲ ରାମପୁର ନଂ ୪୦
KHAMARPADAR SHEET No 6
 Thana Thuamul Rampur No 47
ଜିଲ୍ଲା କଳାହାଣ୍ଡି
 ସ୍କେଲ ୧୮" = ୧ ମାଇଲ୍ Scale 1" = 1 Mile
 ସନ ୧୯୯୬-୯୭ Year 1996-97

Divisional Forest Officer
 Kalahandi South Division

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	Area proposed for compensatory afforestation
	Area mutated as CA Land for Gandhamardan - A
	Corner points

SCHEME FOR

BALANCE FOREST LAND OVER 210.0062 HA TO
BE RETAINED AS GREEN COVER

AT

GANDHAMARDAN (BLOCK-A) 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. 2 (iv) of the stage-I Forest Clearance granted by MoEF & CC, Govt. of India vide
F.No. 8-27/2016-FC dt 05.04.2019)

(@ Rs. 311.00/- per manday)

SCHEME FOR
BALANCE FOREST LAND OVER 210.0062 HA TO BE RETAINED AS GREEN
COVER WITHIN THE MINING LEASE AREA TO ARREST SOIL EROSION

CHAPTER- I

BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL,

INTRODUCTION:-

Gandhamardan (Block-A) Iron Ore Mines of OMC Ltd. comprises of 519.7472 ha forest land. Stage-II Forest clearance has been granted by MoEF & CC over 41.2442 ha and 76.7206 ha. Stage-I Forest Clearance has been granted by MoEF & CC vide letter F.No. 8-27/2016-FC, Dt. 05.04.2019 over 401.7824 ha in favour of Gandhamardan (Block-A) Iron Ore Mines. Condition no. 2 (iv) of Stage-I FC stipulates that

“Out of 401.7824 ha, user agency is allowed to use only 191.7762 ha forest land. Balance forest land shall be retained as green cover at the cost of user agency”.

In compliance with this condition, a comprehensive scheme over 210.0062 ha is prepared for implementation of the same. The area over 210.0062 is already covered with green vegetation so in order to maintain the area as green cover ANR without gap plantation measures has been proposed. The norm for ANR without gap plantation @ Rs. 311.00/Manday is enclosed as Annexure-I. Labour Commissioner of Odisha vide letter no. 2816/LC dt. 25.05.2021 has revised the minimum wage rate to Rs. 311.00 per man day. In this context the scheme has been prepared @ Rs. 311.00 per man day.

CHAPTER- II

AGENCY RESPONSIBLE FOR PLANTATION OVER 210.0062 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. Budgetary provision of 15% of the total project cost has been earmarked on this score.

CHAPTER- III

DETAILS OF WORK SCHEDULE PROPOSED OVER 210.0062 HA

A. PLANTING PLAN

The area over 210.0062 is already covered with green vegetation. So in order to maintain the area as green cover, ANR without gap plantation measures has been proposed. The area has to be surveyed and demarcated properly. A map in the scale of 1:8000 has to be prepared along with pillar numbers reflected in the map. The following soil moisture conservation activities will be carried out.

B. OPERATION IN 0th YEAR

In the 0th year activities like survey, demarcation & pillar posting, GPS reading with mapping, site preparation and cutting of high stumps will be carried out.

C. OPERATION IN 1st YEAR

In the 1st year activities like silvicultural operation involving clearance of weeds, cutting of climbers, singling of shoots, Soil Conservation Measures (Staggered trenches of dimension 2 m X 0.5 m X 0.5 m @ 60 Nos. Per ha) or its equivalent, inspection path fire line tracing etc. will be carried out.

D. OPERATION FROM 2nd YEAR ONWARDS

From second year onwards, the following soil moisture conservation activities will be carried out.

- Soil Conservation Measures (Renovation of staggered trenches etc.)
- Maintenance of Fireline Tracing and Inspection Path.

CHAPTER-IV

REQUIREMENT OF FUNDS:

For implementation of all prescriptions outlined above, Rs. 84,58,800.00/- (Rupees eight/four lakhs fifty eight thousand eight hundred) only will be required as detailed below.

1.	ANR with gap plantation over 210.0062 ha @ Rs. 33565.35 per ha	Rs-	70,48,931.60
	TOTAL PLANTATION COST :-	Rs-	70,48,931.60
4	Add 20% for escalation	Rs-	14,09,786.32
	Total Plantation cost	Rs-	84,58,717.92
			Or Say
			84,58,800.00

(Rupees eight/four lakhs fifty eight thousand eight hundred) only.

CHAPTER-VI

PROVISION OF FUNDS AND FUND UTILIZATION

Rs. 84,58,800.00/- (Rupees eight/four lakhs fifty eight thousand eight hundred) only utilized by the user agency M/s OMC Ltd on approval of the scheme for implementation of the recommendations over 210.0062ha.

Technically Approved

Regional Chief Conservator of Forests
Rourkela Circle

Divisional Forest Officer,
Keonjhar Division

COST NORM FOR AIDED NATURAL REGENERATION (ANR without gap) PER HECTARE

Wage rate Rs 311.00 per Day.

Sl. No.	Item of Work	Preferable period of Execution	Person days	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
0TH YEAR						
1	Survey, Demarcation and Pillar Posting, GPS Reading with mapping	Nov/Dec	2	622.00	0	622.00
2	Site Preparation	Nov/Dec	2	622.00	0	622.00
3	Cutting of high stumps	Nov/Dec	5	1555.00		1555.00
	SUB TOTAL		9	2799.00	0	2799.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		139.95
	GRAND TOTAL		9	2799.00	0	2938.95
1ST YEAR OPERATION						
1	Silvicultural Operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	4665.00	0	4665.00
2	Soil Conservation Measures (Staggered trenches of dimension 2 m X 0.5 m X 0.5 m @ 60 nos per ha) or its equivalent	Sep/Oct	20	6220.00	0	6220.00
3	Fireline Tracing and Inspection Path	Feb/Mar	3	933.00	0	933.00
4	Watch & ward	Aug-Mar	5	1555.00	0	1555.00
5	Contingency and Unforeseen Expenditures		0	0.00	500.00	500.00
	SUB TOTAL		43	13373.00	500.00	13873.00
6	Monitoring & Supervision charge 5% of the total cost			0.00		693.65
	GRAND TOTAL		43	13373.00	500.00	14566.65
2ND YEAR OPERATION						
1	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2488.00	0	2488.00
2	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
3	Watch & ward (whole year)	Apr-Mar	7	2177.00	0	2177.00
4	Contingency and Unforeseen Expenditures		0	0.00	300.00	300.00
	SUB TOTAL		16	4976.00	300.00	5276.00
5	Monitoring & Supervision charge 5% of the total cost			0.00		263.80
	GRAND TOTAL		16	4976.00	300.00	5539.80
3RD YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward (whole year)	Apr-Mar	7	2177.00	0	2177.00

3	Contingency and Unforeseen Expenditures		0	0.00	300.00	300.00
	SUB TOTAL		8	2488.00	300.00	2788.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		139.40
	GRAND TOTAL		8	2488.00	300.00	2927.40

4TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	933.00	100.00	1033.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		51.65
	GRAND TOTAL		3	933.00	100.00	1084.65

5TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	933.00	100.00	1033.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		51.65
	GRAND TOTAL		3	933.00	100.00	1084.65

6TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	933.00	100.00	1033.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		51.65
	GRAND TOTAL		3	933.00	100.00	1084.65

7TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	933.00	100.00	1033.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		51.65
	GRAND TOTAL		3	933.00	100.00	1084.65

8TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
---	--------------------------------------	---------	---	--------	---	--------

2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	933.00	100.00	1033.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		51.65
	GRAND TOTAL		3	933.00	100.00	1084.65
9TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	933.00	100.00	1033.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		51.65
	GRAND TOTAL		3	933.00	100.00	1084.65
10TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
3	Contingency and Unforeseen Expenditures			0.00	100.00	100.00
	SUB TOTAL		3	933.00	100.00	1033.00
4	Monitoring & Supervision charge 5% of the total cost			0.00		51.65
	GRAND TOTAL		3	933.00	100.00	1084.65

ABSTRACT						
SL. No.	Item of Work	No. Person Day	Labour cost @ Rs 311.00/- per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	0th Year operation	9	2799.00	0	139.95	2938.95
2	1st Year operation	43	13373.00	500.00	693.65	14566.65
3	2nd Year operation	16	4976.00	300.00	263.80	5539.80
4	3rd Year operation	8	2488.00	300.00	139.40	2927.40
5	4th Year operation	3	933.00	100.00	51.65	1084.65
6	5th Year operation	3	933.00	100.00	51.65	1084.65
7	6th Year operation	3	933.00	100.00	51.65	1084.65
8	7th Year operation	3	933.00	100.00	51.65	1084.65
9	8th Year operation	3	933.00	100.00	51.65	1084.65
10	9th year operation	3	933.00	100.00	51.65	1084.65
11	10th year operation	3	933.00	100.00	51.65	1084.65
	TOTAL	97	30167	1800	1598.35	33565.35

Revised Financial Outlay of the scheme for balance forest land over 210.0062 ha to be retained as green cover within the mining lease area to arrest soil erosion prepared in compliance with the Condition No.2(iv) of the Stage-I approval accorded by the GoI, MoEF & CC, ERO, Bhubaneswar vide their Letter F.No 8-27/2016-FC, Dt. 05.04.2019 in respect of the Proposal for diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha for Iron Ore mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

(Wage Rate @ Rs.315/- per MD)

1.	ANR without gap plantation over 210.0062 ha @ Rs. 33972.75 per ha	Rs-	71,34,488.13
4	Add 20% for escalation	Rs-	14,26,897.63
	Total Plantation cost :-	Rs-	85,61,385.76
			Or Say
			85,61,400.00

(Rupees eighty-five lakh sixty-one thousand four hundred) only

Technically Approved

Regional Chief Conservator of Forests,
Rourkela Circle

COST NORM FOR AIDED NATURAL REGENERATION (ANR without gap) PER HECTARE
Wage rate ₹ 315/- per Day.

Sl. No.	Item of Work	Preferable period of Execution	Person days	Labour Cost (₹)	Material Cost (₹)	Total Cost in (₹)
0TH YEAR						
1	Survey, Demarcation and Pillar Posting, GPS Reading with mapping	Nov/Dec	2	630	0	630
2	Site Preparation	Nov/Dec	2	630	0	630
3	Cutting of high stumps	Nov/Dec	5	1575		1575
	SUB TOTAL		9	2835	0	2835
4	Monitoring & Supervision charge 5% of the total cost					142
	GRAND TOTAL		9	2835	0	2977.75
1ST YEAR OPERATION						
1	Silvicultural Operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	4725	0	4725
2	Soil Conservation Measures (Staggered trenches of dimension 2 m X 0.5 m X 0.5 m @ 60 nos per ha) or its equivalent	Sep/Oct	20	6300	0	6300
3	Fireline Tracing and Inspection Path	Feb/Mar	3	945	0	945
4	Watch & ward	Aug-Mar	5	1575	0	1575
5	Contingency and Unforeseen Expenditures		0	0	500	500
	SUB TOTAL		43	13545	500	14045
6	Monitoring & Supervision charge 5% of the total cost					702
	GRAND TOTAL		43	13545	500	14747.25
2ND YEAR OPERATION						
1	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2520	0	2520
2	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
3	Watch & ward (whole year)	Apr-Mar	7	2205	0	2205
4	Contingency and Unforeseen Expenditures		0	0	300	300
	SUB TOTAL		16	5040	300	5340
5	Monitoring & Supervision charge 5% of the total cost					267
	GRAND TOTAL		16	5040	300	5607
3RD YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward (whole year)	Apr-Mar	7	2205	0	2205
3	Contingency and Unforeseen Expenditures		0	0	300	300
	SUB TOTAL		8	2520	300	2820
4	Monitoring & Supervision charge 5% of the total cost					141
	GRAND TOTAL		8	2520	300	2961
4TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
3	Contingency and Unforeseen Expenditures			0	100	100
	SUB TOTAL		3	945	100	1045
4	Monitoring & Supervision charge 5% of the total cost					52
	GRAND TOTAL		3	945	100	1097.25
5TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
3	Contingency and Unforeseen Expenditures			0	100	100
	SUB TOTAL		3	945	100	1045
4	Monitoring & Supervision charge 5% of the total cost					52
	GRAND TOTAL		3	945	100	1097.25
6TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315

	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
3	Contingency and Unforeseen Expenditures			0	100	100
	SUB TOTAL		3	945	100	1045
4	Monitoring & Supervision charge 5% of the total cost					52
	GRAND TOTAL		3	945	100	1097.25
7TH YEAR OPERATION						
	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
1	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
2	Contingency and Unforeseen Expenditures			0	100	100
3	SUB TOTAL		3	945	100	1045
4	Monitoring & Supervision charge 5% of the total cost					52
	GRAND TOTAL		3	945	100	1097.25
8TH YEAR OPERATION						
	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
1	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
2	Contingency and Unforeseen Expenditures			0	100	100
3	SUB TOTAL		3	945	100	1045
4	Monitoring & Supervision charge 5% of the total cost					52
	GRAND TOTAL		3	945	100	1097.25
9TH YEAR OPERATION						
	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
	Contingency and Unforeseen Expenditures			0	100	100
	SUB TOTAL		3	945	100	1045
4	Monitoring & Supervision charge 5% of the total cost					52
	GRAND TOTAL		3	945	100	1097.25
10TH YEAR OPERATION						
	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
1	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
2	Contingency and Unforeseen Expenditures			0	100	100
3	SUB TOTAL		3	945	100	1045
4	Monitoring & Supervision charge 5% of the total cost					52
	GRAND TOTAL		3	945	100	1097.25
ABSTRACT						
Sl. No.	Item of Work	No. Person Day	Labour cost @ ₹ 315/- per day	Material cost (₹)	Monitoring & Supervision charge 5% of the total cost	Total cost in (₹)
1	0th Year operation	9	2835	0	141.75	2976.75
2	1st Year operation	43	13545	500	702.25	14747.25
3	2nd Year operation	16	5040	300	267.00	5607.00
4	3rd Year operation	8	2520	300	141.00	2961.00
5	4th Year operation	3	945	100	52.25	1097.25
6	5th Year operation	3	945	100	52.25	1097.25
7	6th Year operation	3	945	100	52.25	1097.25
8	7th Year operation	3	945	100	52.25	1097.25
9	8th Year operation	3	945	100	52.25	1097.25
10	9th Year operation	3	945	100	52.25	1097.25
11	10th Year operation	3	945	100	52.25	1097.25
	TOTAL	97	30555	1800	1617.75	33972.75



भारत सरकार GOVERNMENT OF INDIA
खान मंत्रालय MINISTRY OF MINES
भारतीय खान ब्यूरो INDIAN BUREAU OF MINES
क्षेत्रीय खान नियंत्रक के कार्यालय
OFFICE OF THE REGIONAL CONTROLLER OF MINES



Phone: 0674-2362463
Tele Fax: 0674-2362490
E-mail: rc.bhubaneswar@ibm.gov.in
Plot No.149, Pokhariput
BHUBANESWAR-751020

No. MRMP/A/36-ORI/BIIU/2020-21

Date: 12.01.2021

सेवामे

The Managing Director & Nominated Owner,
M/s Odisha Mining Corporation Ltd
OMC House, Bhubaneswar -751001

विषय: Approval of modification of Review of Mining Plan of Gandhmardan-A Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 618.576 ha in Kconjhar district of Odisha State, submitted by M/s Odisha Mining Corporation Ltd under Rule 17(3) of Mineral Concession Rules, 2016.

- संदर्भ: - i) Your letter No. 13929/OMC/PMC/2020 dated 20.11.2020 received on 01.12.2020.
ii) This office letter of even no. dated 01.12.2020.
iii) This office letter of even no. dated 01.12.2020 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.
iv) This office letter of even no. dated 15.12.2020.
v) Your letter No. 15487/OMC/PMC/2020 dated 29.12.2020.

महोदय,

In exercise of the power delegated to me vide Gazette Notification No. S.O. 1857(E) dated 18.05.2016, I hereby Approve the modification of Review of Mining Plan including Progressive Mine Closure Plan of Gandhmardan-A Iron Ore Mine over an area of 618.576 ha of M/s Odisha Mining Corporation Ltd in Kconjhar district of Odisha State submitted under Rule 17(3) of Mineral Concession Rules, 2016. This approval is subject to the following conditions:

- I. The modification of review of Mining Plan is approved without prejudice to any other law applicable to the mine area from time to time whether made by the Central Government, State Government or any other authority and without prejudice to any order or direction from any court of competent jurisdiction.
- II. The proposals shown on the plates and/or given in the document is based on the lease map /sketch submitted by the applicant/ lessee and is applicable from the date of approval.
- III. It is clarified that the approval of aforesaid modification of review of Mining Plan does not in any way imply the approval of the Government in terms of any other provision of Mines & Minerals (Development & Regulation) Act, 1957, or the Mineral Concession Rules, 2016 and any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 or the rules made there under, Mines Act, 1952 and Rule & Regulations made there under.
- IV. Indian Bureau of Mines has not undertaken verification of the mining lease boundary on the ground and does not undertake any responsibility regarding correctness of the boundaries of the leasehold shown on the ground with reference to lease map & other plans furnished by the applicant / lessee.

- V. At any stage, if it is observed that the information furnished, data incorporated in the document are incorrect or misrepresent facts, the approval of the document shall be revoked with immediate effect.
- VI. If this approval conflicts with any other law or court order/ Direction under any statute, it shall be revoked immediately.
- VII. Validity of this document shall expire on 31.03.2023.
- VIII. Next Financial Assurance shall be due for submission on 31.03.2023.
- IX. The modification of Review of Mining Plan has been processed without field verification. Deficiencies/ discrepancies observed if any during the inspection will be communicated which should be incorporated in the modification of Review of Mining Plan by way of modification.

भवदीय/ yours-faithfully,

Encl: - One copy of modification
of Review of Mining Plan


(हरकेश मीना) 12/02

क्षेत्रीय खान नियंत्रक

प्रतिलिपि सादर सूचनार्थ:-

1. The Director of Mines, Directorate of Mines, Government of Odisha, Heads of the Department Building, Bhubaneswar- 751001, Odisha along with one copy of modification of review of Mining Plan by **REGISTERED PARCEL**.
2. Shri Leo Christy & Shri G R Kulkarni, V. M. Salgaocar & Brother Pvt Ltd, Salgaocar House, Off F. L. Gomes Road, Vasco-Da-Gama, Goa-403802 .

(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Modification of Review of Mining Plan

under Rule 17(3) of MCR, 2016

with

Progressive Mine Closure Plan

Under Rule 23 of MCDR, 2017

Name of the Mine: Gandhamardan-A Iron Ore Mine

of

Odisha Mining Corporation Ltd.

Name of the Nominated Owner: Shri R. Vineel Krishna, IAS

Village: Village Suakati, Daunla and Gandhamardan PRF

Tehsil: Telkoi, District: Keonjhar

State: Odisha

Lease Area	618.576 Ha
Area in Forest	519.747 Ha
Non-forest Area	98.829 Ha
Period of Proposal	01.04.2021 to 31.03.2023
Lease Period	21.05.2013 to 20.05.2033
Category of Mine	A - Fully Mechanized (Opencast)
Registration No.	IBM/4269/2011
Mine Code	30ORJ08016

Qualified Persons		
Name	Ashish Kumar Samantray	Leo Christy A
Qualification	M.Tech in Mining Engineering	M.Sc. in Applied Geology



Odisha Mining Corporation Ltd.

OMC House, Post Box No. 34, Bhubaneswar, Odisha



CONSENT LETTER / UNDERTAKING / CERTIFICATE FROM THE LESSEE

1. The Modification of Review of Mining Plan in respect of **Gandhamardan Iron Ore Mines (Block-A)** of M/s Odisha Mining Corporation Limited over an area of 618.576 Ha. in Villages Suakali, Dandla & Gandhamardan PRF, Talasik: Telkoi, District: Keonjhar, Odisha state submitted under Rule 17(3) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rule, 2016 has been prepared by following Qualified Persons namely **Sri Ashish Kumar Samantray, DGM (Mining), OMC Ltd. & Sri Leo Christy A, Dy. Chief Geologist, V.M Salgaocar and Brothers Pvt. Ltd. Jointly.**

This is to request the Regional Controller of Mines, Indian Bureau of Mines, Bhubaneswar, to make any further correspondence regarding any correction of the Modification of Review of Mining Plan with the said qualified person at their addresses below.

Sri Ashish Kumar Samantray
Dy. General Manager (Mining),
OMC House, Post Box No 34,
Bhubaneswar, Odisha - 751001
Phone: (0674), 2399950
Fax: (0674) 2391629, 2396889,
Email: planningce@omc@gmail.com

Sri Leo Christy A
Dy. Chief Geologist,
M/s V. M. Salgaonkar and Brothers Pvt. Limited
Salgaonkar House,
Off dr. F. I. Gomes Road,
Vasco da Gama, Goa, India- 403802
Phone: (0832) 2523100, 2512111
Mob no: +91 8888874058
Email: leochristy@vmsbgoa.com

We hereby undertake that all modifications / updating as made in the said Modification of Review of Mining Plan by the said qualified person be deemed to have been made with our knowledge and consent and shall be acceptable on us and binding in all respects.

2. It is certified that the **CCOM's Circular no. 2/2010** related to DGPS survey of the lease area has already been implemented by ORSAC, an authorized agency approved by the State Government.
3. It is certified that the **Progressive Mine Closure Plan** prepared under Rule 23 of MCDR, 2017 of Gandhamardan Iron Ore Mines (Block-A) of M/s Odisha Mining Corporation Ltd over an area of 618.576 Ha. complies with all statutory rules, regulations, orders made by the Central or State Government, statutory organization, court etc. which have been taken into consideration and wherever any specific permission is required the lessee will approach the concerned authorities. The information furnished in the **Progressive Mine Closure Plan** is true and correct to the best of our knowledge and records.
4. The provisions of **Mines Act, Rules and Regulations** made there under have been observed in the Modification of Review of Mining Plan of Gandhamardan Iron ore Mines (Block-A) over an area of 618.576 Ha. in Keonjhar district in Odisha State belonging to M/s Odisha Mining Corporation Limited and where specific permissions are required, the applicant will approach the DGMS. Further, standards prescribed by DGMS in respect of miner's health will be strictly implemented.

Place: Bhubaneswar
Date: 28.12.2020


Managing Director & Nominated Owner
Odisha Mining Corporation Limited
OMC House, Bhubaneswar

The Odisha Mining Corporation Ltd.

(A Gold Category State PSU)

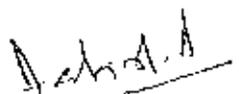
Registered Office : OMC House, Bhubaneswar-751001, India
Tel: 0674-2377400/2377401, Fax: 0674-2396889, 2391629, www.omcltd.in
CIN : U13100OR1956SGC000313



CERTIFICATE

The Provisions of **Mineral Conservation and Development Rules, 2017** have been observed in the preparation of Modification of Review Mining Plan for Mining lease **Gandhamardan-A Iron Ore lease** over an area of 618.576hectares of **Odisha Mining Corporation Ltd.**, situated in Village Suakati, Daunla and Gandhamardan PRD in Teikoi Tehsil of Keonjhar district of Odisha state and whenever specific permissions are required, the lessee will approach the concerned authorities of **Indian Bureau of Mines**.

The information furnished in the Mining Plan is true and correct to the best of our knowledge.


Ashish Kumar Samantray


Leo Christy A

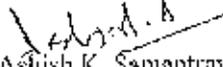
Place: Bhubaneswar

Date: 29.12.2020



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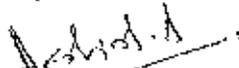
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Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



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Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



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Ashish K. Samantray
Qualified Person

Ashish K. Samantray

Leo Christy A
Qualified Person



DISHA
NEW OPPORTUNITIES

Gandhamardan - A Iron Ore Mine
Odia Mining Corporation Ltd

Modification of Review of Mining Plan
including Progressive Mine Closure Plan from
2021-22 to 2022-23.

List of Annexures

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Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



Gandhavaridan - A Iron Ore Mine
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Qualified Person

Leo Christy A
Qualified Person



Gandhamardan - A Iron Ore Mine
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List of Plates

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Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person

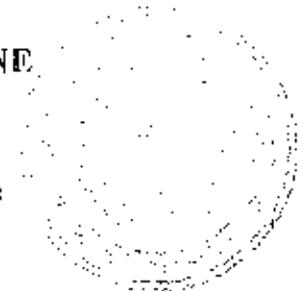


GANDHAMARDAN -A IRON ORE MINE

'A' CATEGORY

Modification of the Review of Mining Plan prepared under Rule 17(3) of MCR, 2016 and

Progressive Mine Closure Plan under Rule 23 of MCDR, 2017



INTRODUCTION

Gandhamardan-A Iron Ore Mine (hereinafter referred as the "Mine") is owned by Odisha Mining Corporation Limited (OMC Ltd.), A Gold Category, Govt. of Odisha Mining PSU. Gandhamardan-A Iron Ore lease of Odisha Mining Corporation is located in village Suakati, Daunla and Gandhamardan PRF in Telkoi Tahsil of Keonjhar district of Odisha state between latitude 21°36'10.2348" (BP-G12) to 21°51'49.71"E (BP-B) & Longitude 85°29' 13.32" (BP-H) 85° 31' 16.78"E (BP-D) and is covered under survey of India toposheet no. 73 G/6 & G/10.

Status of Lease

अनुमोदित
APPROVED

Lease deed for Gandhamardan-A lease was executed on 21.05.1963 for a lease area of 618.576 Ha for a period of 30 years. Please refer copy of lease deed enclosed as Annexure No. 7. Subsequently, application for the first renewal of mining lease was made on 06.04.1992. Application for 2nd renewal of Mining Lease was made on 01.05.2012 As per Rule 3(2) of Mineral (Mining by Government Company) Rules, 2015; the lease period has been extended till 20.05.2033. Copy of lease extension letter from State Government and supplementary lease deed is enclosed as Annexure 8 & 9 respectively.

12/11/2021

Table No. 1

Sl. No	Event with justification, if any	REGIONAL CONTROLLER OF MINES भାରतीय खान नियंत्रक भुवनेश्वर INDIAN BUREAU OF MINES भुवनेश्वर / BHUBANESWAR
1	Lease Deed for Gandhamardan-A Iron Ore Lease was executed on 21.05.1963 with lease area extent of 618.576 Ha for a period of 30 years.	Lease period: 21.05.1963 to 20.05.1993
2	1 st Renewal application to State Govt. was made on 06.04.1992 for a period of 20-years.	1 st Renewal of Mining Lease period: 21.05.1993 to 20.05.2013.
3	The Second Renewal Application to the State Govt. was made on 01.05.2012 for a period 20-years	Second Renewal of Mining Lease Period: 21.05.2013 to 20.05.2033. As per Rule 3(2) of Mineral (Mining by Government Company) Rules, 2015.

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



Status of various Statutory Clearances:

Table No. 2

Sl. No.	Description	Status
1	Environment Clearance	Environment Clearance for the lease has been granted by MOEFCC vide letter No. J-11015/1088/2007-IA.11(M) dated 16.01.2009 for an iron ore production capacity of 0.35 million tons per annum. Please refer copy of the same is enclosed as Annexure No. 13.
2	Forest Clearance	Mine is granted Stage-1 Forest Clearance for 117.9648Ha of forest land involved in the mining lease area from MoEFCC (FC Division) vide letter No. F. No. 8-105/2006-FC dated 17.02.2009 (Please refer Copy of the same enclosed as Annexure No. 14). Stage-2 Forest Clearance for 41.4224Ha of Forest land has been granted vide letter No. F. No. 8-105/2006-FC dated 24.04.2017 (please refer Copy of the same enclosed as Annexure No. 14).
3	Consent from OSPCB	Consent to operate under Air and Water Act has been granted from State Pollution Control Board vide letter No. 3925/ind-i-con-6050 dated 27.03.2020 and is valid up to 31.03.2021. Copy of consent is enclosed as Annexure No. 17 . Consent to Establish has been granted by OSPCB on 04.07.2007 for 0.35MTPA production. Copy enclosed as Annexure No. 16 .
4	Permission of Evacuation of Iron ore Fines	The lessee has been granted permission for the evacuation of fines stacked at Gandhamardan-A lease to Gandhamardan-B lease by the Mining Officer, Copy of the permission of evacuation by the Mining Officer, Kconjhar vide letter No. 2282/Mines dated 14.11.2012, please refer copy of the permission enclosed as Annexure No. 19 .
5	Surface Rights	The lessee has obtained surface right over entire Mining Lease area 618.5760 hectares vide letter No. 846 dated 20.04.1964 (over an area of 175.64 Ha) and vide letter No. 935 dated 12.09.1972 (Over an area of 442.95Ha), please refer copy of letter enclosed as Annexure No. 12 .

Ashish K. Samant
Ashish K. Samant
Qualified Person

Leo Christy A
Leo Christy A
Qualified Person

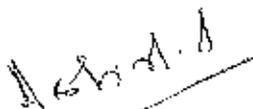


Status of Mining Plan/Scheme of Mining/Modified Mining Plan:
Table No. 3

Sl. No.	Document & Rule No.	Details of Approval	Validity Period
1	Mining Plan under Rules 24(A) of MCR, 1960 & PMCP under Rule 23(B) of MCDR, 1988.	Approved by IBM vide letter No. 314(3)/2012/MCCM(CZ)/MP/MS PMCP/28 dated 14.08.2013	21.05.2013 to 31.03.2018
2.	Review of Mining Plan prepared under Rule 17(1) of MCR, 2016 and PMCP under Rule 23 of MCDR, 2016.	Approved by IBM, Bhubaneswar Regional Office under Letter No. MS/FM-36-ORI-BHU/2017-18 dated 23.01.2018.	01.04.2018 to 31.03.2023

The last approved document is Review of Mining Plan for the period 01.04.2018 to 31.03.2023. Now keeping in view of changes in business environment, market demand for the low grade ore and OMC being State Govt. entity due to the large supply/demand gap in local steel making and to overcome this, the lessee intends to increase production capacity of the mine from the present 0.35 MTPA to 2.88MTPA with due consideration of safe and scientific mining, conservation of minerals. Hence, the present document is Modification in the earlier Approved Review of Mining Plan with the proposals made till the re-estimated proved reserves last.

All the documents referred above and at the relevant part of the document is enclosed as **Volume-II (Annexure)**, as separate document.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



1.0 GENERAL

- a) Name of the Lessee : **Shri R Vineel Krishna**
Address : OMC House, Post No. 34
Bhubaneswar- 751 001
District : Khurda
State : Odisha
Phone : 0674-2393431, 2395689, 2393389
Fax : 0674-2391629, 2396889, 2391772
E-mail : info@orissamining.com; planningcellomc@gmail.com

IBM Registration under Rule-45 – **IBM/4269/2011**

- b) Status of the Lessee : **Public Sector Undertaking**

Table No.4

Director's Details	
Name	
Shri Surendra Kumar (IAS) Chairman OMC Ltd	<ol style="list-style-type: none"> List of Board of Directors enclosed as Annexure No. -1 A copy of relevant extract from the Minutes of 416th Meeting approved by the Board regarding appointment of Nominated Owner of the Mine is enclosed as Annexure No. 2. A Copy of Photo ID and Address Proof of Nominated Owner enclosed as Annexure No. -3 Copy of Power of Attorney is enclosed as Annexure No. -4
Shri Vineel Krishna, IAS Managing Director	
Shri Dehidutta Biswal, IFS Director	
Shri Nidhi Kumar Rautray, OFS Director	
Shri. Yudhishtir Nayak, OAS, Director	
Shri C. R. Das Director	
Shri D. K. Roy Director	
Shri G. S. Khuntia Director	
Shri C. R. Pradhan Director	
Shri S. P. Padhi Director	

- c) Mineral(s) which are included in the prospecting license (For fresh grant)

Not Applicable

- d) Minerals which are included in the Lease Deed

Iron Ore

Ashish K. Samantray
Qualified Person

Ashish K. Samantray

Leo Christy A
Qualified Person



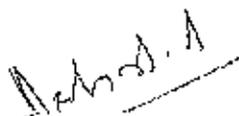
e) Minerals which is the Applicant / Lessee intends to mine

Iron ore

f) Name of Qualified Persons preparing Mining Plan as per Rule 15(1) of MCR, 2016

Table No.5

Name of QP preparing the Review of Mining Plan	Ashish K. Samantray Mining Engineer	Leo Christy A Dy. Chief Geologist
Copy of Qualification and Experience of the qualified person satisfying requirements under Rule 15(1) of MCR, 2016, for the above mentioned Qualified Persons is enclosed under Annexure No. 20		
Address	Dy. General Manager Odisha Mining Corporation Ltd. OMC House, Post Box No. 34, Bhubaneswar, Odisha. – 751 001	Dy. Chief Geologist V. M. Salgaocar & Brother Pvt. Ltd., Salgaocar House, Off F. L. Gomes Road, Vasco-Da-Gama, Goa-403 802.
Phone	0674-2393431, 2395689, 2393389	0832-2512111-14, 2523100, 6720672
Fax	0674-2391629, 2396889	0832-2513813
E-mail	aksamantray@odishamining. com	leochristy@ymsbgoa.com, gkulkarni@ymsbgoa.com


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



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Gandhamardan - A Iron Ore Mine
Odisha Mining Corporation Ltd

Modification of Review of Mining Plan
including Progressive Mine Closure Plan from
2021-22 to 2027-23

2.0 LOCATION & ACCESSIBILITY

a) Lease Details:

Table No. 6

Name of the Lease	Gandhamardan-A Iron Ore Lease (Lease Area: 618.5760 Hta)		
Latitude/Longitude	21° 37' 13.152" N/ 85°30' 03.582" E (Lease Boundary Pillar 'A')		
Date of Grant/			
Period/Expiry Date	Details	Period of Grant	Expiry Date
	1 st Renewal of Mining Lease	21.05.1963 for 30 years	21.05.1963 to 20.05.1993
	2 nd Renewal of Mining Lease	01.05.2012, applied for 20 years	As per Rule 3(2) of Minerals (Mining by Government Company) Rules, 2015 lease expires on 20.05.2033.
Name of Lease Holder	Odisha Mining Corporation Ltd.		
Postal Address	OMC House, Post Box No. 34, Bhubaneswar – 751001.		
District	Khurda		
State	Odisha		
Phone	0674-2393431, 2395689, 2393389		
E-mail id	planningcellomc@gmail.com		

b) Details of area with location map:

Table No. 7

Forest (specify)	Area	Non – Forest (specify)	Area
i) Waste land		i) Waste land	73.002
ii) Grazing land		ii) Grazing land	10.363
iii) Agriculture land		iii) Agriculture land	11.550
iv) Others (specify)		iv) Others (hutments, etc.)	3.914
a) Reserve Forest			
b) Protected Forest	486.134		
c) Village Forest	33.613		
d) Others			
TOTAL	519.747		98.829

Ashish K. Samantray
Qualified Person

Leo Christy A)
Qualified Person



i. Whether the area falls under the Coastal Regulation Zone

-No-

ii. Existence of Public Road/Railway Line, if any nearby and the approximate distance to the Mine

Table No. 8

Road	The Mine is located on Gandhamardan Hill in Sadar Sub-division of Keonjhar Dist. of Odisha State. The Lease area is well connected to the Keonjhar, the district head-quarter via NH-49 situated at a distance of 12Km towards east.
Railway Line	Nearest Railway station is Keonjhar (on Bauspani-Daitari-Jakhapura branch line of South-Eastern and East Coast Railway) at a distance of about 16Km from the mine lease towards East.
Airport	Bhubaneswar International Airport is at a distance of 214 Km.

iii. Toposheet No. with latitude & longitude of all corner boundary pillar / point.

Toposheet No.: 73G/6 & G/10 on 1:50,000 Scale

The geographical latitudes and longitudes of all corner boundary pillars of Gandhamardan-A Mining Lease; after carrying-out DGPS survey along with the Easting/Northing in UTM coordinate system (Datum: WGS-84, Zone: 45Q), with reference to the Approved Lease Plan enclosed as Plate No. 2, are as follows;

Table No. 9

Pillar ID	Easting	Northing	Longitude	Latitude
ML-A	344849.9234	2391550.601	21°37'13.15232"	85°30'03.58040"
ML-A1	344813.8275	2391550.683	21°37'13.15307"	85°30'03.26839"
ML-A2	344796.61	2391551.316	21°37'13.15885"	85°30'01.72629"
ML-A3	344749.3188	2391551.951	21°37'13.16465"	85°30'00.08163"
ML-A4	344685.2787	2391552.81	21°37'13.17249"	85°29'57.85448"
ML-A5	344587.7406	2391554.119	21°37'13.18444"	85°29'54.46237"
ML-A6	344288.219	2391558.143	21°37'13.22113"	85°29'44.04580"
ML-A7	343993.6304	2391562.106	21°37'13.25722"	85°29'33.80080"
ML-A8	343825.1447	2391564.376	21°37'13.27786"	85°29'27.94133"
ML-A9	343705.945	2391565.982	21°37'13.29246"	85°29'23.79589"
ML-B	344859.5331	2392433.543	21°37'41.93040"	85°30'03.61800"
ML-B1	344858.7554	2392363.937	21°37'39.60049"	85°30'03.61477"
ML-B2	344856.9358	2392196.391	21°37'34.15222"	85°30'03.60769"
ML-B3	344855.9746	2392107.881	21°37'31.27403"	85°30'03.60395"

Ashish K. Samantray
Qualified Person

(Signature)

Leo Christy A
Qualified Person



Gandhamardan - A Iron Ore Mine
Odisha Mining Corporation Ltd

Modification of Review of Mining Plan
including Progressive Mine Closure Plan from
2021-22 to 2022-23

Pillar ID	Easting	Northing	Longitude	Latitude
ML-B4	344854.0867	2391934.024	21°37'25.62053"	85°30'03.59660"
ML-B5	344852.1302	2391753.841	21°37'19.76171"	85°30'03.58899"
ML-B6	344851.478	2391693.78	21°37'17.80825"	85°30'03.58645"
ML-B7	344850.8145	2391632.669	21°37'15.82102"	85°30'03.58386"
ML-C	346957.0906	2392419.787	21°37'42.07006"	85°31'06.56552"
ML-C1	346839.2458	2392420.679	21°37'42.06360"	85°31'12.46800"
ML-C10	345508.0177	2392430.696	21°37'41.97360"	85°30'26.17200"
ML-C11	345231.861	2392432.75	21°37'41.95560"	85°30'16.56720"
ML-C2	346625.7043	2392422.298	21°37'42.04920"	85°31'05.04120"
ML-C3	346498.7071	2392423.258	21°37'42.04200"	85°31'00.62400"
ML-C4	346311.5332	2392424.159	21°37'42.01207"	85°30'54.11477"
ML-C5	346217.9411	2392424.61	21°37'41.99880"	85°30'50.86080"
ML-C6	345967.6953	2392427.2	21°37'42.00402"	85°30'42.15679"
ML-C7	345851.0555	2392428.07	21°37'41.99520"	85°30'38.09880"
ML-C8	345754.6657	2392428.83	21°37'41.99160"	85°30'34.74720"
ML-C9	345606.1132	2392429.954	21°37'41.98082"	85°30'29.58188"
ML-D	346954.8872	2391528.932	21°37'13.10321"	85°31'16.78360"
ML-D1	346956.9608	2391894.894	21°37'25.00310"	85°31'16.73466"
ML-D2	346959.5592	2392037.134	21°37'29.62885"	85°31'16.77796"
ML-D3	346958.0669	2392065.143	21°37'30.53910"	85°31'16.71680"
ML-E	345997.1654	2391543.243	21°37'13.27142"	85°30'43.47587"
ML-E1	346068.3822	2391542.07	21°37'13.25544"	85°30'45.95268"
ML-E2	346144.5516	2391540.817	21°37'13.23838"	85°30'48.60174"
ML-E3	346333.212	2391537.712	21°37'13.19604"	85°30'55.16308"
ML-E4	346539.7028	2391534.314	21°37'13.14962"	85°31'02.34454"
ML-E5	346840.1492	2391529.339	21°37'13.08094"	85°31'12.79366"
ML-F	345997.4842	2390081.165	21°36'25.73214"	85°30'43.97334"
ML-F1	345999.4039	2390371.977	21°36'35.18847"	85°30'43.94338"
ML-F2	346000.5451	2390573.096	21°36'41.72818"	85°30'43.91616"
ML-F3	346003.0725	2390710.181	21°36'46.18629"	85°30'43.95845"
ML-F4	346006.5781	2390901.482	21°36'52.40754"	85°30'44.01670"
ML-F5	346002.4052	2391041.879	21°36'56.97124"	85°30'43.82490"
ML-F6	345999.2852	2391345.275	21°37'06.83515"	85°30'43.61546"
ML-G	343385.3151	2390344.015	21°36'33.45939"	85°29'13.06016"
ML-G1	343546.0081	2390274.39	21°36'31.24635"	85°29'18.67099"
ML-G10	345044.2948	2389575.527	21°36'08.99405"	85°30'11.00028"
ML-G11	345121.527	2389565.976	21°36'08.70767"	85°30'13.68873"
ML-G12	345155.2967	2389561.761	21°36'08.58115"	85°30'14.86427"
ML-G13	345255.3104	2389599.6	21°36'09.84274"	85°30'18.32897"
ML-G14	345286.0281	2389610.952	21°36'10.22147"	85°30'19.39319"
ML-G15	345389.2543	2389643.051	21°36'11.29739"	85°30'22.97153"
ML-G16	345465.808	2389681.647	21°36'12.57621"	85°30'25.62034"
ML-G17	345627.8391	2389808.716	21°36'16.75838"	85°30'31.21164"

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



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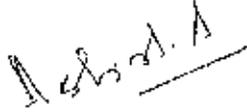
Gandhamardan - A Iron Ore Mine
Odisha Mining Corporation Ltd

Modification of Review of Mining Plan
including Progressive Mine Closure Plan from
2021-22 to 2022-23

Pillar ID	Easting	Northing	Longitude	Latitude
ML-G18	345725.8333	2389880.228	21°36'19.11414"	85°29'34.59501"
ML-G19	345961.3405	2390052.093	21°36'24.77560"	85°29'42.72630"
ML-G2	343777.3289	2390199.073	21°36'28.87048"	85°29'26.73940"
ML-G3	343838.403	2390162.461	21°36'27.69932"	85°29'28.87528"
ML-G4	343991.0765	2390094.235	21°36'25.52908"	85°29'34.20668"
ML-G5	344208.0549	2390022.801	21°36'23.27472"	85°29'41.77496"
ML-G6	344430.7313	2389963.05	21°36'21.40196"	85°29'49.53738"
ML-G7	344594.1088	2389821.664	21°36'16.85612"	85°29'55.26536"
ML-G8	344634.7406	2389757.552	21°36'14.78426"	85°29'56.69959"
ML-G9	344716.365	2389679.521	21°36'12.27270"	85°29'59.56375"
ML-H1	343404.7777	2391570.045	21°37'13.32935"	85°29'13.32212"
ML-H1	343402.7459	2391496.044	21°37'10.92261"	85°29'13.27651"
ML-H2	343403.5285	2391392.567	21°37'07.55833"	85°29'13.33874"
ML-H3	343397.331	2391164.003	21°37'00.12473"	85°29'13.20057"
ML-H4	343391.5167	2390780.384	21°36'47.64970"	85°29'13.12819"
ML-H5	343389.5872	2390617.787	21°36'42.36231"	85°29'13.11610"
ML-H6	343386.1	2390426.524	21°36'36.14238"	85°29'13.05955"

- c) Attach a general location map showing area and access routes. It is preferred that the area be marked on a Survey of India topographical map or a cadastral map or forest map as the case may be. However, if none of these are available, the area may be shown on an administrative map.

Please Refer Plate No.1 for the Key Plan showing Lease area, access routes marked on the 1: 50,000 scale Survey of India Toposheet.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



3.0 DETAILS OF APPROVED MINING PLAN / SCHEME OF MINING

3.1 Date and reference of earlier Approved MP/Review of Mining Plan

Table No. 10.

Sl. No.	Mining Plan/Review of Mining Plan/Modified Mining Plan	Lease Area in Hectares	Submitted under (Rule Reference)	Approval Letter No. & Date	Period of Proposal	Valid Up to
1.	Mining Plan	618.5760	24(A) of MCR, 1960	No. 314 (1)/2012/MCCM(CZ)/MP/MS/PMCP/28 dated 14.08.2013	21.05.2013 to 31.03.2018	31.03.2018
2.	Review of Mining Plan	618.5760	17(2) of MCR, 2016	No. MS.FM 36/ORJ/344/2017-18 dated 23.01.2018	01.04.2018 to 31.03.2023	31.03.2023

3.2 Details of last modifications if any (for the previous approved period) of approved MP/SOM, indicating date of approval, reason for modification.

-Nil-

3.3 Give review of earlier approved proposal (if any) in respect of exploration, excavation, reclamation etc.

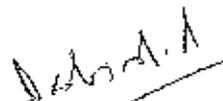
(i) Exploration

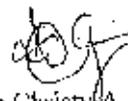
The status of planned against achieved exploration is given in the following table:

Table No.: 11-Proposed and drilled bore holes during the period 2017-18 to 2019-20

Year	Proposed		Achieved		Reasons for deviation
	No. of BHs	Meterage	No. of BHs	Meterage	
2018-19	239	7,170	-nil-	-nil-	Exploration proposals are made in anticipation of obtaining Forest clearance. As same was delayed, proposed boreholes could not be achieved. The achieved boreholes are drilled in the non-forest/diverted forest land.
2019-20	249	7,420	-nil-	-nil-	
2020-21	-	-	18*	393	
Total	488	1,830	18	393	

Note: * borehole drilled as on June, 2020


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



(ii) **Mine Development and Exploitation**

Table No. 12

Year	Saleable Ore (in Million tons)		Mineral Reject (in Million tons)		Waste Rock million cum	
	Proposed	Achieved	Proposed	Achieved	Proposed	Achieved
2018-19	0.30	-nil-	0.05	-nil-	0.76	-nil-
2019-20	0.30	0.179	0.05	-nil-	2.58	0.06
2020-21*	0.35	0.07	-	-	1.45	0.04
TOTAL	0.95	0.23	0.10	-nil-	4.69	0.06

Note: achieved quantity as on Sept., 2020

(iii) **Reclamation (Plantation) Programme:**

During the review period of approved Review of Mining Plan i.e. 2018-19 to 2019-20, the plantation undertaken is as below.

Table No. 13

Year	Proposed	Achieved	Remark
2018-19	1,379	2,000	
2019-20	500	968	Fruit bearing plants Distributed to local villagers
2020-21*	500	510	Plantation done within the lease area.

*As on Sept, 2020

(iv) **Environment Protective Measures:**

Table No. 14

Year	Proposed		Achieved	
	Protective Measure	Dimension Length (m)		Dimension Length (m)
2018-19	Garland Drain	120	Garland Drain	-nil-
	Retaining Wall	347 × 1.5 × 1.20	Retaining Wall	-nil-
	Silt Settling Tank		Silt Settling Tank	-nil-
2019-20	-nil-	-nil-	-	-
2020-21	-nil-	-nil-	-	-

Ashish K. Samantray
Qualified Person

Len Christy A
Qualified Person



3.4 Give status of compliance of violations pointed out by IBM

Table No.15

S. No.	Violation letter No.	Nature of violation	Status of compliance	Remarks
1	No. ORI/IRON/KJR/MCDR-64/BBS/2122 dated 16.01.2020	11(1). There was a proposal to drill 239 nos. of boreholes in the year 2018-19, against approved proposal; no borehole was drilled during the aforesaid year. The yearly report in the prescribed format on protective and rehabilitation works carried during the year 2018-19 has not been submitted to the Regional Controller of Mines, Indian Bureau of Mines, Bhubaneswar, which ought to have been submitted before 1 st July 2019.	All the proposed boreholes i.e. 239 numbers during the FY 2018-19 could not be carried-out due to want of forest clearance over the entire leasehold area. The yearly report in prescribed format on protective and rehabilitation works carried during the year 2018-19 has been submitted vide letter No. 671/OMC/ROG/2020 dated 24.02.2020.	
		The high-resolution satellite images obtained from merging of CARTOSAT-2 & LISS-IV data on the scale of cadastral map on the date of 31 st March, 2019 for the FY 2018-19 has not been submitted till date, which ought to have been before 1 st July 2019.	The high-resolution satellite images obtained from CARTOSAT-2 satellite LISS-IV sensor on the scale of cadastral map has been submitted to the Office of the Regional Controller of Mines, Bhubaneswar vide Letter No. 477/OMC/ROG/2020, dated 06.02.2020. Refer Annexure No. 15	

3.5 Indicate and give details of any suspension / closure / prohibitory order issued by any government agency under any rule or Court of law.

-Nil-


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



- 3.6 In case the MP/SOM is submitted under rules 9 and 10 of the MCDR 1988 or under rule 17 (3) of the MCR, 2016 for approval of modification, specify reason and justification for modification under these rules.

The present proposal is the for the FY 2021-22 to 2022-23, with the modifications made on the last approved Review of Mining Plan submitted and approved for the period 2018-19 to 2022-23. Modifications are proposed keeping in view of changes in business environment, market demand for the low-grade ore. OMC being a State Govt. entity and due to the large supply/demand gap in local steel making and to overcome this, the lessee intends to increase production capacity of the mine from the present 0.35 MTPA to 2.88MTPA with due consideration of safe and scientific mining, conservation of minerals. the increase in the production proposal from the present 0.35Mt of iron ore production to maximum of 2.88 MTPA, prepared under Rule 17(3) of MCR, 2016 along with the Progressive Reclamation Plan prepared under Rule 23 of MCDR, 2017.

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



PART - A

1. GEOLOGY AND EXPLORATION

- a) Briefly describe the topography, drainage pattern, vegetation, climate, rainfall data of the mining lease area.

i. **Topography:**

The mining lease extends over an area of 618.576 hectares oriented in north-south direction, interspersed with hillocks and valleys, the highest elevation in the lease is 1010msl towards the northern part of the lease adjoining to Gandhamardan-B and whereas the lowest elevation is 620msl towards the western part of the lease area, at the bottom of the escarpment. The lease has gentle slope towards both eastern and western part of the lease area. A no. of gullies lead down from the top of the escarpment on both eastern and western slopes.

ii. **Drainage Pattern:**

The drainage pattern in and around the mining lease is mainly dendritic to sub-dendritic in nature and has moderate drainage network within the lease area. The drainage is mainly influenced by the rock property than the structural features. The ridge of the Gandhamardan hill roughly divides the mining lease area into eastern and western part. The drainage channels emerging from the eastern part of the lease area flows down and joins Kadalnadi, which further flows northward and finally joins Ardelnadi, which is a tributary of Baitrani River. The western part of the lease area is drained by several drainage channels, which forms Patarpaginadi and Baminadi which flows towards the west-north-west and north-west respectively. The Patarpaginadi joins the Baminadi at about 7.8Km north-west of the mining lease. The Baminadi flows towards the north-west and joins Baitrani River at 19Km north-north-west of the lease area. Some streams from western side of the lease joins Chandanala, which flows towards west to finally join Baitrani river.

iii. **Vegetation:**

Forest in the leasehold area is classified as Northern Tropical Dry Deciduous Forest. The common tree observed in the area are *Shorea Robusta* is the most dominant species with *Diospyros melanoxylon* (Kendu), *Buchanania lanzen*, *Schleichera oleosa* (Kusum), *Syzygium cumini* (Jamun), *Phyllanthus emblica* (Aonla), *Casera elliptica* (Khakra), *Lagerstroemia patiflora* (Sidha) etc. as common associates.

iv. **Climate:**

The lease area lies in tropical region where the climate is characterized by very hot summer season and cool winter. Summer season is from March to June wherein the monthly average temperature ranges from a maximum of 47°C during day time to a minimum of 10°C at night. Winter is from November to February wherein the maximum

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



temperature during day raises up to 37°C and the minimum temperature at night comes to as low as 6°C.

The average annual rainfall as recorded at IMD observatory at Keonjhar is 1,269mm, the south-west monsoon lasts from mid-June to Mid-September and the area gets more than 80% of the annual rainfall during this period.

v. **Wind-speed and Direction**

Wind is the most important mode of transportation and dispersion of air contaminants. The velocity determines the travel time of particulate to a receptor. The direction of wind determines the path of passage of contaminants. The predominant wind direction of the area east-south south-east with maximum wind velocity recorded during summer is 16.8m/sec.

b) **Brief descriptions of Regional Geology with reference to location of the lease area**

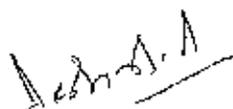
Regional Geology:

The iron-manganese deposits of Bonai-Keonjhar occur in a synclinorium, approximately 60 km long and 25 km wide, trending NNE-SSW and plunging at low angle towards NNE.

The metasedimentary and metavolcanics belonging to Iron Ore Super Group (Koira Group), overlain by sandstone and conglomerates belonging to Kolhan Group, constitute the synclinorium. Since Jones (1934), various stratigraphic sequences have been propounded out of which the one suggested by Murthy & Acharya (1975) is followed here in this project.

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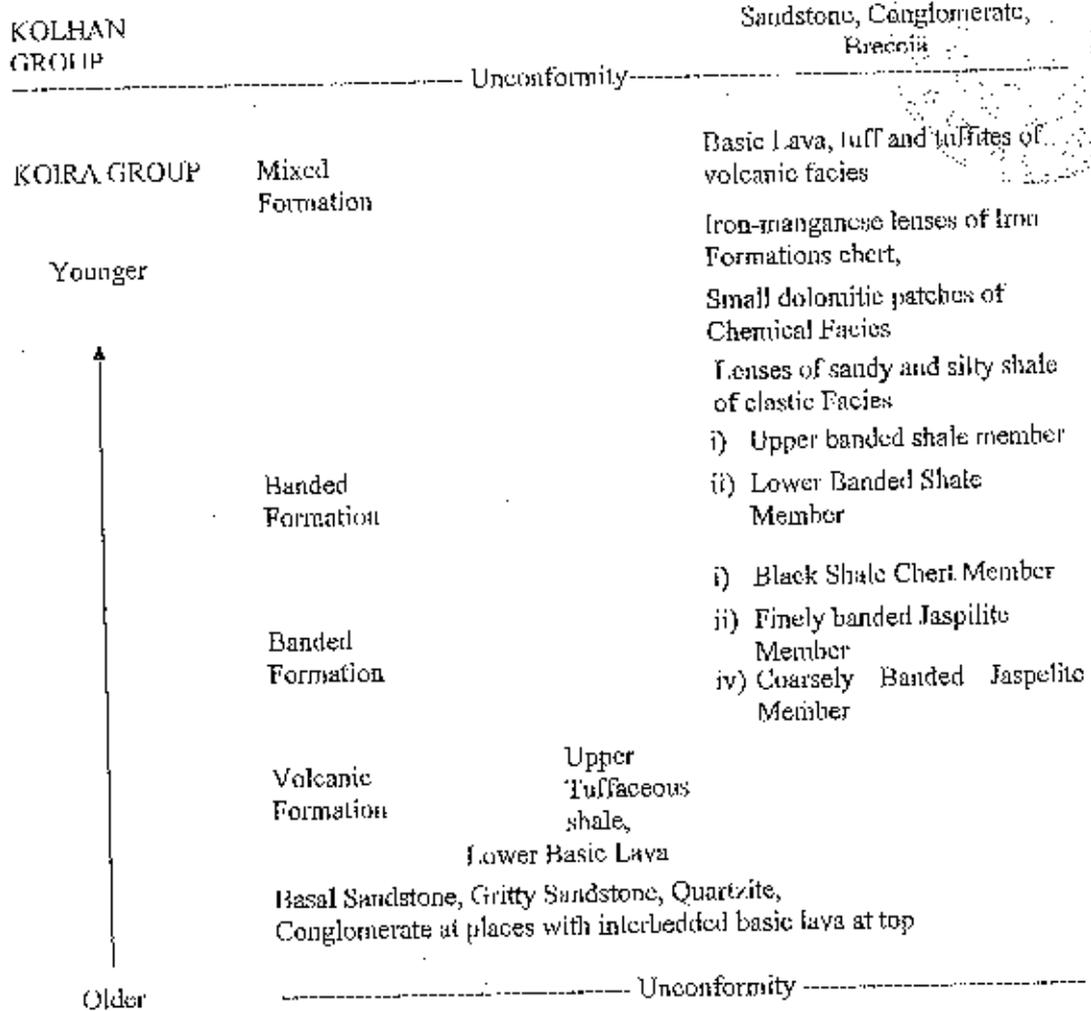
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Ashish K. Samantray
Qualified Person

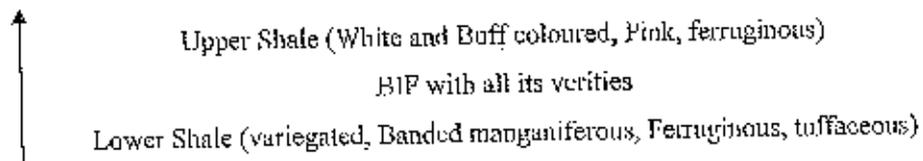

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Qualified Person



Stratigraphic Sequence:



Recent studies by S Acharya and his co-workers have indicated manganese mineralization in lower shales below BI, possibly of syngenetic origin. They have indicated the following stratigraphic sequence;



However, the genesis of most of the manganese ore occurrence in this part is attributed to secondary enrichment. The host rock for the iron ore deposit is Banded Iron Formation mainly comprises of BHJ, BIIQ and Shale.

Regional Structure:

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



The Volcano-sedimentary pile occurring to the west of Singhbhum granite is folded into a major low-north-plunging synclinorium (slightly over-turned to the right) which is manifested in the spectacular U-shaped closure facing south in Bonai. The complimentary anticlinorium lies to the east of major synclinorium in which the lavas were exposed.

Superposed on the north-south trending first folds are cross-folds having E-W axial planes. The resultant interface pattern of the folds led to the development of irregular 'basin' and 'dome' structure on all scales on the Bonai-Keonjhar west belt.

c) Detailed description of Geology of the lease area such as shape and size of the mineral /ore deposit, disposition of various litho-units indicating structural features if any etc.

Based on the extensive detailed geological mapping across and along the lease area, over the exposed surface rocks from its attitude of the formation, exposures in the trial pits, information gathered from the drill hole data, the iron ore deposit of Gandhamardan-A lease is stratified bedded type of deposit, which is regular in nature. The in-situ iron ore bodies located in the lease area are designated as main orebody on the hill-top and the Flank ore in Quarry-9 hill slope deposit. Flank ore deposit is confined to the lower levels (as compared to the Hill-top deposit) between Banded Iron Formation (BIF) and Shale/Volcanics (footwall).

The area was originally mapped by Shri Prasad Rao (unpublished GSI Report). Prasad Rao (1964) and others equated the iron ore formation of Gandhamardan Hill with that of the Bonai-Keonjhar Belt lying to the west. Banerjee (1974) on the other hand, considered the iron ore

formations of Gandhamardan hill to be equivalent to the iron ore formation of Gorumahisani Group. But based on the detailed mapping and few geological considerations, the Gandhamardan and Bonai iron ore formations are considered to be coeval.

the following stratigraphic sequence is inferred for the iron ore deposits of Gandhamardan hill is as given below;

Gritty quartzites are confined to the eastern and southern part of the Gandhamardan hill and exhibit normal stratigraphic sequence. They are hard, compact and fine to medium grained rock with the less developed bedding planes. Quartzites are sometimes predominantly admixed with argillaceous materials and occasionally intruded by milky white quartz veins at the disturbed zones. The formation shows north-south trend with a westerly dip and is conformable to tuffs underlying the iron ore formation.

The volcanic rock except in one patch in the eastern part are confined only to the western and northern part of the area. The hard, compact, fine to medium grained rocks with colour varying from mesocratic to melanocratic. The lava exhibit conchoidal fracture-vesicular structure, at places, the vesicles are being mainly filled with quartz and zeolites.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



ODISHA
NEW OPPORTUNITIES

Gandhamardan - A Iron Ore Mine
Odisha Mining Corporation Ltd

Modification of Review of Mining Plan
including Progressive Mine Closure Plan from
2021-22 to 2022-23

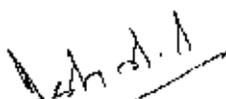
In the borehole No. DNR/1 & DNR/2, the stratigraphic sequence of the western flank deposit is exhibited. The hard-massive ore in the western flank is overlain by laterite-capping, ferruginous shale and volcanic which forms the base of the western flank.

The tuffs or tuffaceous shale is exposed and same is mapped towards the eastern and southern flanks of Gandhamardan. It is soft, fine grained with the color varies from grey-purple-yellowish-greening to white and occasionally seems to contain zeolitic crystals and therefore it appears to be a volcanogenic sediment (tuffs) having sedimentary features like colour banding, bedding planes etc. the trend of the bedding in this formation varies from north-north-east north-north-west, which is conformable with that of iron ore formation.

Banded hematite jasper, banded hematite chert and the shale rock occurs at the top of the entire Gandhamardan hill as a blanket over the tuffs in the eastern part of the lease area and over the volcanics towards the western part of the iron ore formation. The BHJ mostly consist of hematite, jasper and clay which persistently occurs towards the north-eastern part of the Gandhamardan-A iron ore deposit. They are hard, compact brownish to purple and greyish rock, with an conchoidal fracture. This in-persistent band of Banded Hematite Shale or Jaspilite is within the normal stratigraphic sequence underlying Banded Hematite Jasper/Chert and overlying tuffaceous shale in the south-eastern sector and banded chert in the north-eastern sector. Thus it forms a sharp line of distinction between the ferruginous and non-ferruginous rocks. In the north-eastern sector of Gandhamardhan Hill, hard compact, fine grained and mostly of greenish banded chert formations were mapped underlying banded hematite shale, which is sometimes pyritiferous at places.

Banded Iron Ore formation is typified by Banded Hematite Jasper and Chert because of its tabular extension in the top of Gandhamardhan hill; the lower soft rocks have escaped erosion. Stratigraphically and structurally the iron ore body overlies Banded Hematite Jasper as same is evidenced from the drill-holes. The bedding in the Banded Hematite Jasper has a NNE-SSW trend in the both the flanks of iron ore body having a gentle westerly dip.

The in-situ iron orebody of Gandhamardan-A lease is the continuation of the main orebody of the adjoining Gandhamardan-B lease of the same lessee (OMC), which is revealed from the orebody exposed throughout the benches cut across the strike direction the at the common boundary and considering the structural attitude of the formation – its strike and plunge and also from the orebody formation encountered in the Boreholes along the Cross Section GA-1, GA-2 and GA-3 (GS-56, GS-37, GS-24 etc) based on the information gathered, the orebody extends along the strike direction from -1400N to -900N. Besides hard, massive ore types are also located on the western flank of the deposit near Daunta.


Ashish K. Samantray
Qualified Person


Leo Christy A.
Qualified Person



Stratigraphic Sequence	Lithological Formation	Average Thickness (Based on surface & pit exposure; borehole data)
Younger	Recent Deposit Alluvium/Soil cover	0.75m
	Iron ore formation	18m (varies from 3.0 to 75m)
	Banded Iron Ore Formation	1m (varies from 0.2 to 2m) entire column is not penetrated
	Altered Tuffs	12.5
Older	Volcanic (Basic Lava) in the west and dolerite in the east	14m (varies from 6-24m)
	Gritty Quartzite (Feldspathic at places)	Not determined
	Unconformity	
	Granite	Not determined

Local Structure:

The main Gandhamardan Deposit strikes in north-south direction (N5°E – S5°W) with the gentle to moderate westerly dipping beds (5° to 30°) due west). The strike length of the (Gandhamardan Block-A) deposit is 450m and the average width is 700m. The orebody shows swelling nature towards south and pinches down north. Both along the footwall and hanging wall side, the deposit is surrounded by banded hematite jasper (BHJ) with the laterite/soil capping at the top. The deposit is intensively folded in the form of synclinorium both along north-south and east-west directions forming a U-shaped structure. The maximum depth of occurrence of ore is 103m with an average width of 36m and the average thickness of the orebody is 35m.

d) Name of prospecting / exploration agency:

Table No. 16

Sl. No.	Year/Period of Drilling	Name of the Agency	Address	E-mail & Phone No.
1	1976-77	Odisha Mining Corporation Ltd	Geology Division, OMC House, Post Box No.34, Bhubaneswar-751001.	info@orissamining.com Phone: 0674-2393431, 2395689
2	2008-09	M/s Kavya Borewells, Hyderabad	#8-15-116, P28, Sri Ram Nagar, Chintalkunta, Dharmapuri, Hyderabad, Telangana.	-do-
3	2020-21	APC Drilling & Contractor Pvt. Ltd.	153, C-7, 3rd Floor, R.Gopal Complex, Salem Road, Namakkal, Tamil Nadu 637001	04286 276 655

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person

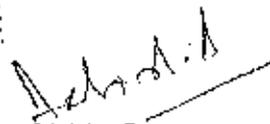


e) Details of prospecting / exploration already carried out:

Table No. 17 Details of Exploration under various categories within Forest & Non-forest Land

Total lease area: 618.5760 hectares						Remarks including reasons for not carrying out the exploration as per UNFC norms
Item of information	Lease area explored as per UNFC norms in Ha. As on 30-06-2020.					
	Total lease area = A+B+C+D+E = 618.5760 Hectares					
	G1 Level	G2 Level	G3 Level	Explored & found non mineralized	Unexplored lease area	
	A	B	C	D	E	
Area as per level of exploration	26.27	52.06	6.98	27.86	505.406	Due to the pending forest clearance, proposed exploration could not be achieved, as per the condition under FCA, 1980, 210.006 Ha need to be retained as green cover, hence, no exploration in this area. Lease area beyond mineralized area covered by Conga, volcanic, quartzite and BIF are not proposed for exploration.
No. of BH. Drilled	32	21	2	3	-	
No. of BH. Considered for Resource estimation	29	20	-	-	-	
Meterage drilled	824.00	702.40	62	200.90	-	
Grid interval	100 x 100	200 x 200	400 x 400	100 x 100	-	
Scale of Mapping	1 : 500 to 1 : 1,000 (45.00 Ha mapped at 1:500 & 1:1,000 Scale)		-	1 : 2,000	-	
Iron Ore						
Reserve estimated after above exploration in Million tons						24.04
Remaining Resource after above exploration in Million tons						0.43
Total Reserve & Resource in Million tons in Million tons						24.47

Extent of lease area categorized under G1 and G2 level is based on the no. and interval of boreholes drilled within the identified mineralized zone and also based on the confidence level of the continuity of iron ore band, determined through surface exposure and its attitude etc.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



Table No. 18 - Details of Exploration carried-out.

Sl. No.	BH. No.	Year of Drilling	Type of Borehole (Core/DTH)	RL (m)	Total Depth Drilled	Latitude	Longitude
1	GS/RC-1A	2020	RC	722.691	20	21°36' 37.72"N	85°29' 49.0812"E
2	GS/RC-2A	2020	RC	731.694	20	21°36' 37.6396"N	85°29' 52.2105"E
3	GS/RC-3A	2020	RC	694.277	20	21°36' 37.5232"N	85°29' 42.0761"E
4	GS/RC-4A	2020	RC	677.752	20	21°36' 33.4275"N	85°29' 42.2905"E
5	GS/RC-5A	2020	RC	719.544	33	21°36' 44.0598"N	85°29' 45.4516"E
6	GS/RC-6A	2020	RC	677.736	20	21°36' 37.0869"N	85°29' 39.0059"E
7	GS/RC-7A	2020	RC	664.058	20	21°36' 41.2204"N	85°29' 38.0073"E
8	GS/RC-8A	2020	RC	721.643	25	21°36' 53.5154"N	85°29' 41.7889"E
9	GS/RC-9A	2020	RC	719.556	25	21°36' 50.8748"N	85°29' 41.2707"E
10	GS/RC-10A	2020	RC	726.548	20	21°36' 53.4337"N	85°29' 44.6524"E
11	GS/RC-11A	2020	RC	739.531	25	21°36' 53.8932"N	85°29' 47.9566"E
12	GS/RC-12A	2020	RC	722.404	20	21°36' 50.6825"N	85°29' 45.1357"E
13	GS/RC-13A	2020	RC	762.737	26	21°36' 55.0312"N	85°29' 51.107"E
14	GS/RC-14A	2020	RC	714.565	25	21°36' 49.0927"N	85°29' 42.7178"E
15	GS/RC-15A	2020	RC	763.783	20	21°36' 57.8445"N	85°29' 49.4091"E
16	GS/RC-16A	2020	RC	700.835	20	21°36' 33.6252"N	85°29' 45.7344"E
17	GS/RC-17A	2020	RC	722.877	20	21°36' 44.3374"N	85°29' 48.8779"E
18	GS/RC-18A	2020	RC	745.246	20	21°36' 57.7215"N	85°29' 45.9868"E
19	DTH/1	2008	DTH	738.81	25	21°36' 47.1503"N	85°29' 46.1929"E
20	DTH/10	2008	DTH	711.317	30	21°36' 50.3388"N	85°29' 39.2051"E
21	DTH/11	2008	DTH	714.483	30	21°36' 53.5903"N	85°29' 39.1714"E
22	DTH/12	2008	DTH	702.813	45	21°36' 50.3073"N	85°29' 35.7279"E
23	DTH/13	2008	DTH	710.667	30	21°36' 53.5588"N	85°29' 35.6942"E
24	DTH/14	2008	DTH	656.314	25	21°36' 33.4186"N	85°29' 37.9893"E
25	DTH/2	2008	DTH	726.135	25	21°36' 50.4018"N	85°29' 46.1593"E
26	DTH/3	2008	DTH	739.375	25	21°36' 53.6532"N	85°29' 46.1257"E
27	DTH/30	2008	DTH	669.52	40	21°36' 41.0544"N	85°30' 31.4622"E
28	DTH/31	2008	DTH	692.811	32	21°36' 47.5573"N	85°30' 31.3955"E
29	DTH/32	2008	DTH	697.481	32	21°37' 30.1066"N	85°30' 2.2587"E
30	DTH/33	2008	DTH	703.646	37	21°37' 13.6627"N	85°30' 41.5606"E
31	DTH/34	2008	DTH	753.875	40	21°37' 20.1034"N	85°30' 34.5393"E
32	DTH/35	2008	DTH	765.922	46	21°37' 20.0411"N	85°30' 27.5846"E
33	DTH/36	2008	DTH	750.477	40	21°37' 20.1657"N	85°30' 41.494"E
34	DTH/37	2008	DTH	770.725	48	21°37' 29.9824"N	85°30' 48.349"E
35	DTH/38	2008	DTH	772.287	46	21°37' 33.2651"N	85°30' 51.7931"E
36	DTH/4	2008	DTH	728.69	28	21°36' 55.8003"N	85°29' 42.626"E
37	DTH/43	2008	DTH	755.569	42	21°37' 26.7309"N	85°30' 48.3822"E
38	DTH/5	2008	DTH	722.684	25	21°36' 55.7688"N	85°29' 39.1488"E
39	DTH/54	2008	DTH	669.417	36	21°37' 13.7871"N	85°30' 55.4699"E
40	DTH/6	2008	DTH	748.884	35	21°36' 55.8317"N	85°29' 46.1032"E
41	DTH/7	2008	DTH	714.632	30	21°36' 37.3959"N	85°29' 46.2938"E
42	DTH/8	2008	DTH	703.861	32	21°36' 33.4942"N	85°29' 46.3341"E
43	DTH/9	2008	DTH	860.118	25	21°37' 3.4706"N	85°29' 52.9192"E
44	GS/21	1976-77	Core	995.41	10.45	21°37' 36.1735"N	85°30' 13.5103"E
45	GS/21	1976-77	Core	988.17	37	21°37' 36.2048"N	85°30' 16.9878"E
46	GS/24	1976-77	Core	980.21	23	21°37' 39.4876"N	85°30' 20.4318"E
47	GS/25	1976-77	Core	978.3	57.75	21°37' 32.9846"N	85°30' 20.4987"E
48	GS/32	1976-77	Core	1001.379	33	21°37' 36.1234"N	85°30' 21.9464"E

Ashish K. Samantroy
Qualified Person

Leo Christy
Qualified Person



Sl. No.	Bl. No.	Year of Drilling	Type of Borehole (Core/D/U)	RL (m)	Total Depth Drilled	Latitude	Longitude
49	GS/37	1976-77	Core	978.6	13	21°37' 39.425"N	85°30' 13.4769"E
50	GS/38	1976-77	Core	1002.86	10	21°37' 32.922"N	85°30' 13.5438"E
51	GS/45	1976-77	Core	980.44	76.5	21°37' 36.2988"N	85°30' 27.4704"E
52	GS/56	1976-77	Core	984.73	27.5	21°37' 39.3624"N	85°30' 6.5719"E
53	GS/6	1976-77	Core	980.71	40.2	21°37' 36.2361"N	85°30' 20.4652"E
54	GS/74	1976-77	Core	968.48	25	21°37' 39.4876"N	85°30' 20.4318"E
55	GS/75	1976-77	Core	984.23	5	21°37' 33.0471"N	85°30' 27.4535"E
56	D98GND011	1976-77	Core	968.62	132.9	21°37' 13.2878"N	85°29' 59.8331"E
57	DNR/1	1976-77	Core	844.215	30	21°36' 57.0068"N	85°29' 57.3929"E
58	DNR/2	1976-77	Core	809.865	26	21°36' 57.471"N	85°29' 54.781"E

- i. Number of pits and trenches indicating dimensions, spacing etc along and across the strike of the deposit with reference to geological plan.

Pitting

Total of 11 number of shallow and moderately deep pits at 4m x 4m and 6m x 4m dimensions were made to delineate and identify different ore type, waste contact zones, and overburden in Hill-Top deposit, details of pitting is given below.

Table No. 19

Sl. No	Trial pit No	Location	RL(m)	Depth of excavation(m)	Major ore types	Pit abandoned in
1	GS/DP/13	1000S/300W	986.83	7.00	Soft laminated ore	Soft laminated ore
2	GS/DP/5	1000S/100W	986.025	8.50	Soft laminated ore	Soft laminated ore
3	GS/SP/38	1000S/100E	968.2	3.00	Float ore	Float ore
4	GS/DP/45	1000S/300E	989.603	8.40	Hard laminated ore	Hard laminated ore
5	GS/SP/67	1100S/400W	986.295	4.10	Soft laminated ore	Soft laminated ore
6	GS/DP/23	1200S/500W	930.535	6.30	Soft laminated ore	Soft laminated ore
7	GS/DP/14	1200S/300W	1005.766	6.00	Soft laminated ore	Soft laminated ore
8	GS/SP/6	1200S/100W	982.82	5.62	Soft laminated ore	Soft laminated ore
9	GS/DP/39	1200S/100E	987.36	8.50	Hard laminated ore	Hard laminated ore
10	GS/SP/24	1400S/500W	946.15	5.65	Soft laminated ore	BHJ
11	GS/SP/15	1400S/300W	951.67	6.10	Soft laminated ore	Soft laminated ore

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



DISHA
NEW OPPORTUNITIES

Gandhamardan - A Iron Ore Mine
Odisha Mining Corporation Ltd

Modification of Review of Mining Plan
Including Progressive Mine Closure Plan from
2021-22 to 2022-23

- ii. Number of boreholes indicating type (Core/RC/DTH), diameter, spacing, inclination, Collar level, depth etc with standard borehole logs duly marking on geological plan/sections. A summary of the exploration carried out for G1 areas indicating mapping, pitting, drilling (number/ spacing), sample drawn/ analyzed etc, existing pit data, grade variation, thickness for different iron ore and Manganese Ore Deposits of the leasehold area is given in the table below:

Table No. 20, Summary of Core and DTH Drilling carried out in lease areas as mentioned below;

Period	Deposit	Type of Drilling	No. of Boreholes	Spacing	Meterage drilled m	Depth in Mts. From/ to	Fe% Grade From/ to	No. of Samples drawn and analyzed	Level of Exploration
18.05.1976 to 05.10.1977	Hill-Top	Core	13	100 × 100	358.40	0.15 to 76.50	4.97 to 68.20	374	G2
	Flank Deposit		2	100 × 100	56.00	0.60 to 30	6.75 to 68.85	39	
Total Core Drilling			15	100 × 100	414.40	0.15 to 132.90	4.97 to 68.85	413	G1
24.04.2008 to 22.05.2008	Float Ore Zone	DTH	13	100 × 100	849	3.0 to 35.0	11.15 to 62.28	125	G1
			11	200 × 200		1.0 to 48.0	4.97 to 68.85	123	
		Core	1		132.90	1 to 132.90			
Total DTH Drilling			25		981.90	1.0 to 48.0	4.97 to 68.85	248	G1
2020	Float Deposit	RC	9	100 × 100	193.00	1 to 33.00	37.44 to 62.59	55	G1
	Flank Deposit		9		200.00	1 to 25.00	18.20 to 60.08	94	G1
Total Core Drilling			18		393.00	1 to 33.00	18.20 to 62.59	149	
Grand Total			58	100 × 100	1,789.30	0.15 to 132.9	4.97 to 68.85	810	G1/G2

Table No. 21 Details of Exploration carried-out under Forest and Non-forest land within the Lease area.

Type of Land	Explored Area in Ha	Unexplored Area	No. of Boreholes Drilled	Mineralised Area	Non-mineralized area
Forest	112.51	407.237	58	84.65	27.86
Non-Forest	-	98.8290	-	-	98.829
TOTAL	112.51	506.066	58	84.65	196.059

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



For the location of all the DTH and Core drills with collar ID, depth and formation encountered are marked on the enclosed Geological Plan and Sections. Please refer Plate No. 5 & 6A-6B.

- iii. Details of samples analysis indicating type of sample (surface/sub-surface from pits/trenches/borehole etc) Complete chemical analysis for entire strata for all radials may be undertaken for selected samples from a NABL accredited Laboratory or Government laboratory or equivalent. Entire mineralized area may be analyzed meter wise with 10% of check samples. (At least for 10% of total samples may be analyzed in accordance to BIS and reports from NABL accredited/other government laboratory).

Total 810 Ore samples were analyzed of which 562 samples are from core drilling, 248 samples are from the cuttings of the DTH. Analysis of secondary constituents like $\text{SiO}_2\%$, $\text{Al}_2\text{O}_3\%$, and LOI were also been carried-out in Iron Ore zone.

As most of the Exploration is carried-out prior to 2010, all the samples could not be analysed through NABL accredited laboratories. However, quality system in place at the Chemical Lab wherein for every 100 samples analysed, standard samples were analysed for quality purpose and also duplicate samples are sent to verify quality of analysis. In future as per the proposed exploration and as per the guideline, 10% of all the borehole samples will be analysed at the NABL accredited laboratory.

Table No. 22 - List of samples collected from each drilled boreholes.

Sl. No.	BH. No.	Type of Sample	No. of Samples Analyzed
1	GS/RC-1A	Borehole	4
2	GS/RC-2A	Borehole	0
3	GS/RC-3A	Borehole	0
4	GS/RC-4A	Borehole	0
5	GS/RC-5A	Borehole	25
6	GS/RC-6A	Borehole	0
7	GS/RC-7A	Borehole	7
8	GS/RC-8A	Borehole	16
9	GS/RC-9A	Borehole	12
10	GS/RC-10A	Borehole	6
11	GS/RC-11A	Borehole	5
12	GS/RC-12A	Borehole	9
13	GS/RC-13A	Borehole	13
14	GS/RC-14A	Borehole	15
15	GS/RC-15A	Borehole	8
16	GS/RC-16A	Borehole	4
17	GS/RC-17A	Borehole	13
18	GS/RC-18A	Borehole	10
19	DTH/I	Borehole	7
20	DTH/10	Borehole	20
21	DTH/11	Borehole	4

Ashish K. Samantray
Qualified Person

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Leo Christy A
Qualified Person

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Sl. No.	BH. No.	Type of Sample	No. of Samples Analyzed
22	DTH/12	Borehole	4
23	DTH/13	Borehole	6
24	DTH/14	-	0
25	DTH/2	Borehole	4
26	DTH/3	Borehole	4
27	DTH/30	-	0
28	DTH/31	Borehole	4
29	DTH/32	-	0
30	DTH/33	Borehole	11
31	DTH/34	Borehole	3
32	DTH/35	Borehole	18
33	DTH/36	Borehole	24
34	DTH/37	Borehole	22
35	DTH/38	Borehole	15
36	DTH/4	Borehole	8
37	DTH/43	Borehole	20
38	DTH/5	Borehole	9
39	DTH/54	Borehole	1
40	DTH/6	Borehole	7
41	DTH/7	Borehole	7
42	DTH/8	Borehole	7
43	DTH/9	Borehole	3
44	GS/12	Borehole	11
45	GS/21	Borehole	35
46	GS/24	Borehole	31
47	GS/25	Borehole	73
48	GS/32	Borehole	39
49	GS/37	Borehole	73
50	GS/38	Borehole	14
51	GS/45	Borehole	77
52	GS/56	Borehole	9
53	GS/6	Borehole	38
54	GS/74	Borehole	17
55	GS/75	Borehole	4
56	D98GND011	-	0
57	DNR/1	Borehole	31
58	DNR/2	Borehole	6

iv. **Expenditure incurred in various prospecting operations**

Cost towards exploration – drilling of Diamond core, DTH, Grab sampling, sample preparation and cost involved towards analysis of all the meter-wise samples collected at our Gandhamardan-A Iron Ore Lease is **Rs.31.23 Lakhs**.

- f) **The surface plan of the lease area may be prepared on a scale of 1 : 1,000 or 1 : 2,000 with the contour interval of maximum of 10m depending upon the topography and size**

Ashish K. Samantray
Qualified Person

Leo Christy
Qualified Person



of the area duly marked by grid lines showing all features indicated under Rule 31 of MCDR, 2017.

Due to larger extent of the lease area covered, Surface Plan of the lease area is prepared in Scale of 1:4,000. Necessary permission under Rule 31 (d)(iii) is obtained from the Regional Controller, IBM for submission of Plan on 1:4,000 scale, please refer the copy of permission enclosed as Annexure No. 18.

The Surface Plan of the lease area is prepared on scale 1:4,000 with 10m contour interval, gridlines are marked at every 500m interval, showing all the features as indicated under Rule same is taken as the base for the preparation of Geological Plan, showing the details exploration carried-out including the evidences of mineral existence please refer enclosed Plate No. 5.

- g) For the preparation of Geological plan, surface plan prepared on scale of 1:1000 or 1:2000 scale specified under para 1.0 (f) of Part A may be taken as base plan. The details of the exploration already carried-out along with the supporting data for the existence mineral, locations of proposed exploration, various litho-units along with structural features, mineralized/ore zone with grade variation if any may be marked on the geological plan along with the other features indicated under Rule 32 (b) of MCDR, 2016.

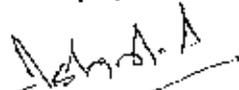
The Geological plan of the lease area is prepared on scale 1:4,000 depicting various lithounits, structural attitude of the orebody, level of exploration as per UNFC, boreholes drilled and its ID, Collar RL, total depth drilled, are indicated on the enclosed Geological Plan, please refer enclosed Plate No. 5.

- h) Geological sections may be prepared on Natural scale of geological plan at suitable interval across the lease area from Boundary to boundary.

Geological cross sections prepared in 1:2,000 scale at 100m interval depicting various litho-units, borehole data, level of exploration – area under Gland orebody depth persistence Refer Plate No. 6A -6B.

- i) Broadly indicate the future programme of exploration with due justification (duly marking on Geological plan year wise location in different colours) taking into consideration the future tentative excavation programme planned in next five years as in table below.

The potential mineralised area has been drilled in G1 category. Out of the 618.576 Ha. Area, most of the part area is covered with conga, volcanic, quartzite and Bill which are barren and not having a potential Iron ore formation. Vide letter no. F.No. 8-27/2016-FC, dttd. 05.04.2019 by the Ministry of Environment, Forest and climate change, Govt. of India, out of 401.7824Ha applied for forest diversion, 210.0062 Ha shall be retained as green cover. Entire area categorised under G2 level of exploration both at the Hill-Top and Flank deposit is proposed.


Ashish K. Samal
Qualified Person

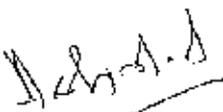

Leo Christy A
Qualified Person



Table No. 23- Proposed Boreholes.

Year	No. of Boreholes (Core/RC/DFH)	Grid Interval	Total meterage	No. of pits/ dimension /Volume	No. of trenches/ dimension /Volume
I (2021-22) Before 20-02-2022	133 (Core/RC Drill)	100 x 100	Up to 300m or up to discontinuance of orebody, whichever is earlier.	52/ 4x6x6 Volume: 5,488 cum	

Entire proposed boreholes on the potential mineralized area shall be completed before 20-02-2022, for the list of boreholes proposed, please refer below table;


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



Table No. 24 - List of proposed Boreholes

Sl. No.	Year	Borehole No	Northing	Easting	Collar RI	Core /RC/ DTH	Meta- rage	Inclination	Forest/ Non- forest	Surface Rights	Purpose
1	2021-22 (before 20-02-2022)	PBH-1	2392355.7	345042.51	993	Core/RC	Up to 300mts or till the end of mineralisation/discontinuation of ore body whichever is earlier.	Vertical	Forest	Granted Surface Rights	To prove the extent of mineralization and to convert entire area under G2 stage of exploration to G1 stage.
2		PBH-2	2392355.7	345242.51	987	Core/RC		Vertical	Forest		
3		PBH-3	2392355.7	345442.51	997	Core/RC		Vertical	Forest		
4		PBH-4	2392355.7	345642.51	990	Core/RC		Vertical	Forest		
5		PBH-5	2392355.7	345742.51	949	Core/RC		Vertical	Forest		
6		PBH-6	2392255.7	345042.51	1006	Core/RC		Vertical	Forest		
7		PBH-7	2392255.7	345442.51	1001	Core/RC		Vertical	Forest		
8		PBH-8	2392255	345642.57	982	Core/RC		Vertical	Forest		
9		PBH-9	2392155.5	344942.49	991	Core/RC		Vertical	Forest		
10		PBH-10	2392155.7	345042.51	1005	Core/RC		Vertical	Forest		
11		PBH-11	2392155.7	345242.51	982	Core/RC		Vertical	Forest		
12		PBH-12	2392155.7	345442.51	988	Core/RC		Vertical	Forest		
13		PBH-13	2392155.7	345642.51	923	Core/RC		Vertical	Forest		
14		PBH-14	2392055.7	344942.51	982	Core/RC		Vertical	Forest		
15		PBH-15	2392055.7	345042.51	970	Core/RC		Vertical	Forest		
16		PBH-16	2392055.1	345141.75	945	Core/RC		Vertical	Forest		
17		PBH-17	2391955.6	344942.04	971	Core/RC		Vertical	Forest		
18		PBH-18	2391955.7	345042.51	923	Core/RC		Vertical	Forest		
19		PBH-19	2391955.5	345142.72	888	Core/RC		Vertical	Forest		
20		PBH-20	2391859.2	344942.98	952	Core/RC		Vertical	Forest		
21		PBH-21	2391856.8	345041.86	891	Core/RC		Vertical	Forest		
22		PBH-22	2391855.8	345142.73	864	Core/RC		Vertical	Forest		
23		PBH-23	2391755.1	344942.68	939	Core/RC		Vertical	Forest		
24		PBH-24	2391755.7	345042.51	875	Core/RC		Vertical	Forest		
25		PBH-25	2391756	345142.87	850	Core/RC		Vertical	Forest		
26		PBH-26	2391655.7	344942.91	930	Core/RC		Vertical	Forest		
27		PBH-27	2391655.6	345043.04	872	Core/RC		Vertical	Forest		
28		PBH-28	2391655.5	345142.73	840	Core/RC		Vertical	Forest		
29		PBH-29	2391552.7	344942.54	919	Core/RC		Vertical	Forest		
30		PBH-30	2391554.5	345041.37	865	Core/RC		Vertical	Forest		
31		PBH-31	2391555.5	345142.5	831	Core/RC		Vertical	Forest		
32		PBH-32	2391455.9	344641.97	966	Core/RC		Vertical	Forest		
33		PBH-33	2391455.7	344742.51	988	Core/RC		Vertical	Forest		
34	PBH-34	2391455.7	344842.51	978	Core/RC	Vertical	Forest				
35	PBH-35	2391454.8	344941.78	921	Core/RC	Vertical	Forest				
36	PBH-36	2391354.3	344145.29	760	Core/RC	Vertical	Forest				
37	PBH-37	2391355.1	344243.1	779	Core/RC	Vertical	Forest				
38	PBH-38	2391356.1	344342.84	792	Core/RC	Vertical	Forest				
39	PBH-39	2391355.8	344541.57	906	Core/RC	Vertical	Forest				
40	PBH-40	2391356.2	344642.61	946	Core/RC	Vertical	Forest				
41	PBH-41	2391355.9	344743.22	978	Core/RC	Vertical	Forest				
42	PBH-42	2391354.9	344843.13	985	Core/RC	Vertical	Forest				
43	PBH-43	2391257.3	344143.45	751	Core/RC	Vertical	Forest				
44	PBH-44	2391255.6	344241.61	765	Core/RC	Vertical	Forest				
45	PBH-45	2391258.2	344344	781	Core/RC	Vertical	Forest				
46	PBH-46	2391254.9	344741.52	953	Core/RC	Vertical	Forest				
47	PBH-47	2391257.7	344842.62	974	Core/RC	Vertical	Forest				
48	PBH-48	2391256.2	344942.84	935	Core/RC	Vertical	Forest				
49	PBH-49	2391151.4	344142.62	737	Core/RC	Vertical	Forest				
50	PBH-50	2391153.8	344343.06	767	Core/RC	Vertical	Forest				
51	PBH-51	2391158.6	344743.31	930	Core/RC	Vertical	Forest				
52	PBH-52	2391156.5	344842	960	Core/RC	Vertical	Forest				
53	PBH-53	2391153.2	344941.68	930	Core/RC	Vertical	Forest				

Ashish K. Samantraj
Qualified Person

Ashish K. Samantraj
29/12/2021

Christy A
Chr Christy A 24/11
Qualified Person



Sl. No.	Year	Borehole No	Northing	Easting	Collar RL	Core JRC/ DTH	Meta- rage	Inclination	Forest/ Non- Forest	Surface Rights	Purpose
54	2021- 22 (before 20-02- 2022)	PBH-54	2391055.3	344741.72	930	Core/RC	Up to 300mts or till the end of minera- lisation/ discont- inuation of ore body whichever is earlier.	Vertical	Forest	Granted Surface Rights	To prove the extent of minera- lisation and to convert entire area under G2 stage of explora- tion G1 stage
55		PBH-55	2391056.4	344843.14	960	Core/RC		Vertical	Forest		
56		PBH-56	2391055.3	344912.27	914	Core/RC		Vertical	Forest		
57		PBH-57	2390954.6	344748.19	919	Core/RC		Vertical	Forest		
58		PBH-58	2390954.8	344843.1	943	Core/RC		Vertical	Forest		
59		PBH-59	2390955	344940	909	Core/RC		Vertical	Forest		
60		PBH-60	2390854.6	344640.38	809	Core/RC		Vertical	Forest		
61		PBH-61	2390854.6	344740.48	908	Core/RC		Vertical	Forest		
62		PBH-62	2390854.8	344840.66	937	Core/RC		Vertical	Forest		
63		PBH-63	2390854.3	344940.44	882	Core/RC		Vertical	Forest		
64		PBH-64	2390754.5	343942.19	675	Core/RC		Vertical	Forest		
65		PBH-65	2390700	344200.08	996	Core/RC		Vertical	Forest		
66		PBH-66	2390751.5	344639.52	819	Core/RC		Vertical	Forest		
67		PBH-67	2390754.3	344741.25	898	Core/RC		Vertical	Forest		
68		PBH-68	2390754.6	344842.5	928	Core/RC		Vertical	Forest		
69		PBH-69	2390653.4	344639.46	817	Core/RC		Vertical	Forest		
70		PBH-70	2390653.6	344740.98	876	Core/RC		Vertical	Forest		
71		PBH-71	2390654	344840.71	885	Core/RC		Vertical	Forest		
72	PBH-72	2390554.1	344639.8	813	Core/RC	Vertical	Forest				
73	PBH-73	2390354.4	344740	872	Core/RC	Vertical	Forest				
74	PBH-74	2390553.4	344841.15	858	Core/RC	Vertical	Forest				
75	PBH-75	2391153.4	344641.69	862	Core/RC	Vertical	Forest				
76	PBH-76	2391154.4	344542.06	817	Core/RC	Vertical	Forest				
77	PBH-77	2391155.1	344442.06	780	Core/RC	Vertical	Forest				
78	PBH-78	2391255.9	344442.7	801	Core/RC	Vertical	Forest				
79	PBH-79	2391255.9	344640.37	913	Core/RC	Vertical	Forest				
80	PBH-80	2390555.69	344942.44	845.00	Core/RC	Vertical	Forest				
81	PBH-81	2390655.69	344942.44	859.50	Core/RC	Vertical	Forest				
82	PBH-82	2390655.69	345042.44	807.50	Core/RC	Vertical	Forest				
83	PBH-83	2390655.69	345142.44	777.00	Core/RC	Vertical	Forest				
84	PBH-84	2390655.69	345242.44	738.00	Core/RC	Vertical	Forest				
85	PBH-85	2390655.69	345342.44	736.00	Core/RC	Vertical	Forest				
86	PBH-86	2390755.69	344942.44	890.00	Core/RC	Vertical	Forest				
87	PBH-87	2390755.69	345042.44	833.00	Core/RC	Vertical	Forest				
88	PBH-88	2390755.69	345142.44	805.00	Core/RC	Vertical	Forest				
89	PBH-89	2390755.69	345242.44	780.50	Core/RC	Vertical	Forest				
90	PBH-90	2390855.69	345042.44	849.50	Core/RC	Vertical	Forest				
91	PBH-91	2390855.69	345142.44	827.00	Core/RC	Vertical	Forest				
92	PBH-92	2390855.69	345242.44	811.50	Core/RC	Vertical	Forest				
93	PBH-93	2390955.69	345042.44	879.50	Core/RC	Vertical	Forest				
94	PBH-94	2390955.69	345142.44	838.00	Core/RC	Vertical	Forest				
95	PBH-95	2391055.69	345042.44	895.00	Core/RC	Vertical	Forest				
96	PBH-96	2391055.69	345142.44	849.00	Core/RC	Vertical	Forest				
97	PBH-97	2391155.69	345042.44	896.00	Core/RC	Vertical	Forest				
98	PBH-98	2391155.69	345142.44	841.00	Core/RC	Vertical	Forest				
99	PBH-99	2391255.69	345042.44	905.00	Core/RC	Vertical	Forest				
100	PBH-100	2391255.69	345142.44	863.00	Core/RC	Vertical	Forest				
101	PBH-101	2391355.69	344942.44	951.50	Core/RC	Vertical	Forest				
102	PBH-102	2391355.69	345042.44	900.00	Core/RC	Vertical	Forest				
103	PBH-103	2391355.69	345142.44	855.00	Core/RC	Vertical	Forest				
104	PBH-104	2391455.69	345042.44	887.00	Core/RC	Vertical	Forest				
105	PBH-105	2391455.69	345142.44	845.00	Core/RC	Vertical	Forest				
106	PBH-106	2391555.69	345242.44	835.00	Core/RC	Vertical	Forest				
107	PBH-107	2391555.69	345342.44	807.50	Core/RC	Vertical	Forest				
108	PBH-108	2391655.69	345442.44	855.00	Core/RC	Vertical	Forest				

Ashish K. Samantroy
Qualified Person

Ashish K. Samantroy
25/12/2020

Leo Christy A
Qualified Person



Table No. 25 - List of proposed trail pits

Sl. No.	Year	Pit No.	Northing	Easting	Dimens ion (L x B x W)	RL	Forest/ Non-forest	Surface rights/non-surface rights	Purpose
1	2021-22	PTP-1	2392363.3	346047.904	4 x 6 x 6	993	Forest	Granted Surface rights	To determine lithological sequence and its extent, recovery % of float ore if any and to prove mineralised and non-mineralised area.
2		PTP-2	2392355.6	346242.445	4 x 6 x 6	987	Forest		
3		PTP-3	2392255.6	346142.445	4 x 6 x 6	997	Forest		
4		PTP-4	2392255.8	346342.445	4 x 6 x 6	990	Forest		
5		PTP-5	2392155.6	346042.445	4 x 6 x 6	949	Forest		
6		PTP-6	2392155.7	346442.509	4 x 6 x 6	1006	Forest		
7		PTP-7	2391955.7	345342.509	4 x 6 x 6	1001	Forest		
8		PTP-8	2391955.6	345742.445	4 x 6 x 6	982	Forest		
9		PTP-9	2391955.8	345942.445	4 x 6 x 6	991	Forest		
10		PTP-10	2391955.7	346342.509	4 x 6 x 6	1005	Forest		
11		PTP-11	2391955.8	346542.445	4 x 6 x 6	982	Forest		
12		PTP-12	2391755.8	345342.445	4 x 6 x 6	988	Forest		
13		PTP-13	2391755.7	346142.509	4 x 6 x 6	953	Forest		
14		PTP-14	2391755.6	346342.445	4 x 6 x 6	982	Forest		
15		PTP-15	2391755.7	346542.509	4 x 6 x 6	970	Forest		
16		PTP-16	2391755.7	346742.509	4 x 6 x 6	945	Forest		
17		PTP-17	2391555.7	346842.536	4 x 6 x 6	971	Forest		
18		PTP-18	2391555.7	346142.536	4 x 6 x 6	923	Forest		
19		PTP-19	2391555.7	345742.536	4 x 6 x 6	888	Forest		
20	2021-22	PTP-20	2391555.7	345542.536	4 x 6 x 6	952	Forest	Granted Surface rights	To determine lithological sequence and its extent, recovery % of float ore if any and to prove mineralised and non-mineralised area.
21		PTP-21	2391355.7	345242.536	4 x 6 x 6	891	Forest		
22		PTP-22	2391355.8	345442.445	4 x 6 x 6	864	Forest		
23		PTP-23	2391355.7	345642.536	4 x 6 x 6	939	Forest		
24		PTP-24	2391355.8	345842.46	4 x 6 x 6	875	Forest		
25		PTP-25	2391155.7	345842.536	4 x 6 x 6	850	Forest		
26		PTP-26	2391155.8	345642.445	4 x 6 x 6	930	Forest		
27		PTP-27	2390955.6	345842.445	4 x 6 x 6	872	Forest		
28		PTP-28	2390955.7	345642.509	4 x 6 x 6	840	Forest		
29		PTP-29	2390955.8	345442.573	4 x 6 x 6	919	Forest		
30		PTP-30	2390955.6	345242.445	4 x 6 x 6	865	Forest		
31		PTP-31	2390755.6	345442.445	4 x 6 x 6	831	Forest		
32		PTP-32	2390755.8	345842.445	4 x 6 x 6	966	Forest		
33		PTP-33	2390555.7	345842.509	4 x 6 x 6	988	Forest		
34		PTP-34	2390555.6	345442.445	4 x 6 x 6	978	Forest		
35		PTP-35	2390355.7	345542.509	4 x 6 x 6	921	Forest		
36		PTP-36	2390147.4	345342.509	4 x 6 x 6	760	Forest		
37		PTP-37	2390155.8	345542.445	4 x 6 x 6	779	Forest		
38		PTP-38	2390155.8	343742.445	4 x 6 x 6	792	Forest		
39	PTP-39	2389955.6	345242.445	4 x 6 x 6	906	Forest			
40	PTP-40	2389955.7	345442.536	4 x 6 x 6	946	Forest			
41	PTP-41	2389955.8	345642.445	4 x 6 x 6	978	Forest			
42	PTP-42	2389755.6	344842.445	4 x 6 x 6	985	Forest			
43	PTP-43	2389755.6	345042.445	4 x 6 x 6	751	Forest			
44	PTP-44	2389755.6	345242.573	4 x 6 x 6	765	Forest			
45	PTP-45	2390255.7	344542.536	4 x 6 x 6	781	Forest			
46	PTP-46	2390455.7	344742.509	4 x 6 x 6	953	Forest			
47	PTP-47	2390655.6	343742.445	4 x 6 x 6	974	Forest			

Ashish K. Samantray
Qualified Person

Leo Christy
Qualified Person



Sl. No.	Year	Pit No.	Northing	Easting	Dimension (L x B x W)	RL	Forest/ Non-forest	Surface rights/non surface rights	Purpose
48		PTP-48	2390655.7	343942.509	4 x 6 x 6	935	Forest		
49		PTP-49	2390655.7	344142.509	4 x 6 x 6	737	Forest		
50		PTP-50	2390855.8	344542.445	4 x 6 x 6	767	Forest		
51		PTP-51	2390655.6	344542.445	4 x 6 x 6	930	Forest		
52			2390455.6	343942.445	4 x 6 x 6	960	Forest		

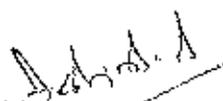
j) Reserves and Resources as per UNFC with respect to the threshold value notified by IBM may be furnished in a tabular form. (Area explored under different level of exploration may be marked on the Geological plan and UNFC code for the area considered for categories of reserves/resources estimation may also be marked on the geological cross sections).

Submit a feasibility/pre-feasibility study report along with the financial analysis for economic viability of the deposit as specified along with financial analysis for economic viability of the deposit as specified under the UNFC field guidelines may be incorporated.

For Mineral reserves and resource statements refer Table No. 22 - 25, estimations are made as per the UNFC norms and by considering the threshold value as notified by IBM.

Reserves and resources are estimated by Sectional Area Method. Orebody interpretation at depth is made wherever closed-spaced boreholes are drilled over the mineralized zone along and across the strike direction in regular gridded pattern. Also the Gandhamardan -A, the subject lease is having common boundary at the northern part of the lease with the adjacent mining lease Gandhamardan-B Block of the same Management, which is designated as Hill-Top deposit wherein entire lease is fully explored and the orebody is proved to the maximum depth, at the common boundary mine is developed/excavated with the benches cutting across the strike direction, exposed with the iron ore and other formation, by using the attitude of the exposed orebody same is projected beyond common lease boundary and by using the boreholes drilled in Gandhamardan-A Block, orebody profiles were interpreted with utmost confidence level. The orebody behavior is not that complicated as mentioned under local geology. In the subject mine orebody has a prominent trend towards northwest to southeast and dip towards east/west; also along the strike direction orebody is folded having very gently plunge.

For the reserve estimation by Sectional Area Method, Section lines are marked across the general strike direction for Hill-Top, Flank and float Deposit at 100m interval, ore-body profiles were interpreted by considering attitude of the exposed orebody on the surface, orebody exposed in the adjacent lease at the common-boundary, borehole information/log, correlation with the Longitudinal section, grade/formation-wise area from each section multiplied by influence along the strike direction at each level is multiplied by Bulk density to arrive at the tonnage, please refer Table No. 27 to 28 For the section-wise reserve statement considered for sealable ore of 155%Fe and for mineral reject (45-55%) iron ore.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



Part of the Hill-top and the Flank Deposit is explored at closed spaced boreholes; at the Hill-top deposit, quantity of iron ore which is presently blocked for obtaining forest clearance, the orebody behavior is established along and across the strike and at depth with greater degree of confidence, hence, under geology axis G1 code is considered.

Level of Exploration is marked on the Surface Geological Plan enclosed as Plate No. 5 and UNFC code for the area considered for the different categories of reserves estimated, are marked on the Geological Cross Section enclosed as Plate No. 6A - 6B.

For the Pre-Feasibility report please refer enclosed Annexure No. 31.

- k) Furnish detailed calculation of reserves/resource section-wise (when the mine is fully mechanized and the deposit is of complex nature with the variation of size, shape of the mineralized zone, grade due to intrusion within the ore zone etc, an attempt may be made to estimate reserves/resource by slice plan method). In case of deposits where underground mine is proposed, reserves/resource may be estimated by level plan method, as applicable, as per the proposed mining method.

Parameters considered for the estimation Reserves/Resource.

As per Minerals (Evidence of Mineral Contents) Rule 2015, lateral extension of the mineral continuity shall be limited to a distance of maximum 50m from the drilled borehole and depth continuity of G1 category mineral reserves shall be limited up to the depth of evidence of established mineral column in the borehole. Accordingly, geological cross-sections have been modified and re-assessment of the mineable reserve has been carried out.

Due to proposed increase production capacity of the mine and delay in obtaining forest clearance, proposed exploration during the period 2018-19 could not be achieved hence, based on the information gathered from the existing boreholes data and boreholes drilled during year 2020, exposed orebody in the mine pit (Flank and Float deposit) and orebody behaviour at the common boundary with the Gandhamardan B Block, the reserve/resources were re-estimated, also on the basis of all the boreholes drilled, 45% Fe cut off for iron ore is considered. The resources/reserves figures have been established as per the guidelines of UNFC.

Parameters considered for estimation of Mineral Reserves/Resources

- The threshold value has been considered as per the IBM guidelines -45% Fe for Iron Ore.
- Cut-off grade considered is 45.5% Fe.
- Updated pit position as on 30.06.2020.
- Borehole collar, survey, assay & litho information are from exploration data.
- Orebody and OB/SB inter-burden exposed in the mine pit and based on borehole data.
- Information gathered at the common boundary towards the northern part of the lease area with Gandhamardan B-Block, wherein mine benches at common boundary is completely exposed with orebody showing a definite trend along the strike direction, hence, same is extended up to 50 from the common boundary towards Gandhamardan-A.

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



- g) Entire data has been incorporated to plot the geological cross-section at the regular interval and by correlating with the exposed orebody in the pits and on the surface, its attitude, borehole data, orebody profiles were determined with utmost confidence along across the strike direction and at depth.
Boreholes drilled and the information gathered from the attitude of exposed orebody were projected and Cross Section A0 was prepared.
- h) Total 58 boreholes are drilled over the potential mineralized zone, of which 34 are of core drill and 24 holes are of DTH, drilled during 1976-15 nos., 2008-25 nos. and during the year 2020 18 RC drills were drilled.
- i) Using the above-mentioned boreholes and surface exposures, its attitude, total 12 cross sections (A0-A11) were prepared to understand the behavior of orebody across and along the general strike direction.
- h) Bulk density determined for various types of ore, the Mineral reject and for the waste rock and same is used to arrive at the tonnage from the volume determined between the cross-sections.
- i) Method of mining is opencast fully mechanized, involving controlled drilling and blasting, considered after determining the geo-technical properties of ore and waste rock.
- j) By considering all the working parameters like cut-off grade, threshold value and economic viability, statutory or the technical constraints if any, accordingly, based on the exploration data available as on date, pit bottom is proposed to reach shall be tentative. Ultimate pit depth proposed till the end of lease period is tentative as same will tend to change with the completion of proposed exploration.
- k) There is a proposal to install a crushing and screening plant, which is only for physical size separation, hence, no processing loss is anticipated.

Bulk density for different grades of ore at different exposed/identified deposits of the mine were determined by considering physical properties of the ore body and moisture content if any at the mine.

Table No. 26

Lithology	Grade	Bulk density (g/cm ³)	Recovery (%)
HLO/HMO	65.08	3.60	100
Lateritic Ore	55.9	2.65	100
Soft Laminated Ore	63.46	3.45	100
Blue Dust	63.89	2.52	100
Sub-grade	51.27	2.53	100
BUQ/BHJ	37.86	3.49	100

Ashish K. Samantray
Ashish K. Samantray
Qualified Person

Leo Christy A
Leo Christy A
Qualified Person



Bulk density test report is enclosed as **Annexure No. 26**.

Threshold value for iron ore is as fixed by IBM, the entire ore +55%Fe and mineral reject of 45-55%Fe are considered for the reserve estimation. Depending up on the market condition and the buyer's requirement, different types of ore processed shall be stacked separately and blended.

Recovery Factors considered for the estimation Ore Reserve/Resource:

As mentioned in the above table, on basis of recovery test carried-out for various category of ore by considering clay intercalations observed within the orebody and the dilution at the contact of ore and waste rock, observation made on the exposed low grade ore bands - ore chunks embedded within laterite and shale horizon, and most importantly based on the past production data.

For the estimation of resource, similar methodology is adopted as mentioned in the above paragraph - by assessing the confidence level and the modifying factors, the estimated quantity is categorized accordingly as reserves and resource.

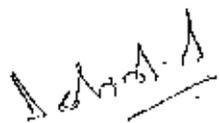
The estimated ore quantity under probable reserves and resource categories are also marked on Geological cross section.

D) Mineral Reserves/Resources:

Table No. 27, For Iron Ore

Level of Exploration	Resources in million tons	Grade
G1- Detailed exploration	2.24	45 to 55% Fe
	1.92	+55% Fe
G2- General exploration	2.97	45 to 55% Fe
	17.34	+55% Fe
G3- Prospecting	-	-
TOTAL	5.21	45 to 55% Fe
	19.26	+55% Fe
	24.47	

Please note Reserves and resources within the lease area are arrived after applying the results of pre-feasibility study and economic evaluation of the deposit by considering various factors as mentioned in the above paragraph (k).


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



Total Reserve statement of the Mine under various category of ore classified as per UNFC norms as on 30.06.2020.

Table No. 28

	UNFC Code	Quantity in Million tons	Grade Range (Fe%)
A. Total Mineral Reserve		24.04	
Proved Mineral Reserve	111	-	
	111	-	
	Total 111	-	
Probable Mineral Reserve	121	1.92	+55%Fe
	121	2.24	45-55%Fe
	122	16.91	+55%Fe
	122	2.97	45-55%Fe
	Total 121 & 122	24.04	
B. Total Remaining Resources		0.43	
Feasibility Mineral Resource	211	-	
Pre-feasibility Mineral Resource	222	0.43	+55%Fe
Measured Mineral Resource	331	-	
Indicated Mineral Resource	332	-	
Inferred Mineral Resource	333	-	
Reconnaissance Mineral Resource	334	-	
Total Reserve + Resources	Total	24.47	Av. Grade Fe% - 61.22

Table No. 29 - Justification for considering code as per UNFC under economic, feasibility and geological axis:

G1 Axis:

1. Geological Survey	Detailed topographical cum geological map prepared on 1:4,000 scale for the entire mining lease area by incorporating all surface and geological features, contacts, strike and dip, BH locations, cross section lines, ultimate pit limit etc., at the Hill-top, Flank Quarry and Float quarry. Geological cross sections are prepared at 100 m interval on a scale of 1:1000 from lease-boundary to lease boundary. Based on the attitude of the orebody on the surface and its behaviour along and across the strike observed during the lateral movement of benches is updated wherever the pits, trenches and trial pits are made. Subsurface borehole data is incorporated and the proposed working pit and Ultimate pit limits, etc are framed.
2. Geo-chemical	Geo-chemical prospecting is not carried-out and same is not necessary as the

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person

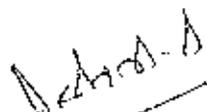


survey	iron ore deposit is banded stratiform and tabular deposit of regular habit, exposed on the surface with definite and prominent trend.
3. Geo-physical survey	The entire lease area is covered with varying thickness of top soil, laterite, enriched shale and BH/BHQ, wherever hard, laminated lumpy ore is exposed having a very prominent strike direction with a definite trend, this is a good indication for occurrence of lumpy ore at depth below the ground level followed by powdery/friable ore. Hence, no indirect method of geophysical prospecting is carried-out to determine persistence of orebody at depth.
4. Technological survey	Also with the proposal to carry-out Slope stability and hydrogeological study to determine stability of benches within ore and waste (soft clay horizons) and also to determine the effective pit slope along the footwall and hangwall direction.
5. Petrographic Study	Most of the formations within the lease area are of familiar lithologies which are as per the stratigraphic sequence mentioned under local geology. Individual rock units are identified.
6. Geo Statistical Analysis	Please refer to our last approved Review of Mining Plan document, under Part-A, 1.0 (iv)(j), extensive geostatistical analysis of the data is made using variogram analysis – for spatial variability of mineralization and grade distribution along the strike and dip of the formation and along borehole depth. Gandhamardan Block-A Iron Ore deposit is uniform in mineralization for iron ore at both Hill-top and Flank Quarry and it does not show any erratic behaviour. The coefficient of variation in grades in all the ores are low in range of 0.03 to 0.1 indicating uniform grade distribution and the deposit presently has limited exploration data, a part of the hill-top and Flank quarry is explored at almost uniform grid interval of 100 × 100m both along and across the strike direction. As mentioned above, the ore reserve/resource statement estimated is by manual Sectional Area Method wherein area in cross/longitudinal sections were utilized and the area between the section intervals is used to determine volume and same is multiplied by systematic grade-wise Bulk Density data determined to arrive at the tonnage.

Based on the above detailed assessment code of 1 is accorded on Geological axis wherever part of the deposit is explored at closed spaced interval.

Justification for UNFC: G2 AXIS

At the Hill-Top deposit, boreholes are drilled at 100m interval along the strike direction and across the strike direction, the borehole intervals are at more than 100m, hence, to better understand depth persistence of orebody across the strike direction, borehole in the form of diamond core drilling are proposed at the Hill-Top deposit, total number of boreholes proposed at the Hill-Top deposit is 31. Presently entire quantity ore estimated are categorized under pre-feasibility resource with an UNFC code of 122, hence G2 level is considered under Geology axis.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



Justification for Pre-Feasibility: F2 Axis

1. Geology	The detailed topographical cum geological map prepared on 1:4,000 scale for the Mining Lease area by incorporating all surface and Geological features, contacts, strike and dip, BH locations, cross section lines, ultimate pit limit etc., the Geological cross sections are prepared from lease boundary to lease boundary at 100 m interval on a scale of 1:2,000 at the Flank and Hill-top quarry identified in the lease area. Based on the surface and subsurface borehole data, the proposed working pit and Ultimate pit limits etc are framed. At places wherever there is lack of borehole data, ore estimation is made with moderate confidence level. Lease area occupies 519.747 hectares of forest land, presently only 41.2442 Ha of broken-up land is diverted which occupies part of the Flank area & Float Quarry, hence entire quantity of ore is considered under F1 axis, and the balance 478.5028 Ha occupying Hill-top deposit and other part of the potential mineralised area is pending diversion, we are in the process of obtaining Stage-I clearance u/S 2(ii) FCA, 1980, after compliance of conditions stipulated in the Stage-I clearance, Stage-II and clearance under KC Act will be obtained. In view of pending clearances, F2 level is considered under Feasibility axis.
2. Mining	Method of Mining will be as mentioned in the Section-2 of the Modified Review of Mining Plan document.
3. Environment	EIA/EMP is prepared for the enhanced production capacity from the existing 0.35MTPA to maximum of 2.88MTPA of the mine covering impact on environment – Air, Water (Surface and Ground), Noise, impact on Flora and Fauna, socio economic impact, reclamation/rehabilitation, waste disposal, post land use pattern, etc. By MoEFCC approved consultant.
4. Processing	Considering the threshold value for iron ore, entire iron ore produced from the mine will be processed at the Centralized crushing plant and the screening plant, within the lease area. The detailed process involved – is dealt under Section-6 of the Modified Review of Mining Plan document.
5. Infrastructure and services	Infrastructure like Road, Mine office, work shop, officers/workers colony (township is established for the purpose) dispensary, with good communication facility like telephone, internet, etc. Nearest Railway station is at Keonjhar (on Banspani-Daitari-Jakhapura branch line of South-Eastern and East Coast Railway) at a distance of about 16Km from the mine lease towards East.
6. Costing	Project capital cost is estimated Rs. 36,802 lakhs which includes cost of acquisition of Private land, machinery etc. Please refer below Table for the details on cost involved under various heads.
7. Marketing	The iron ore produced from the Gandhamardan Block-A Mines will meet the requirement of long-term buyers in terms of physical parameters and required grade. Therefore, usable mineral recovered from ROM may be directly used in the end-use industry of the long-term buyers.
8. Economic viability	The project is economically viable

Based on the above detailed assessment, code F1 is considered for the estimated reserves from the diverted forest area and F2 for area needs diversion from MoEFCC as mentioned under

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



Geology, accordingly the estimated resource is categorised under Proved (F1) and Probable Reserves (I21) due to fact that for obtaining forest clearance for diverting balance forest land involved in the lease area.

Economic Axis: E2

At the common boundary, after considering 7.5m safety zone, part of the orebody is blocked which presently cannot be mined. Hence, entire ore quantity is categorized under E2 economic axis. As this area as mentioned above across the strike direction, the borehole interval is more than 100m interval, G2 level is considered under Geology axis. Also, the area is pending Forest Clearance U/s (2) of FCA, 1980, hence E2 is considered under Feasibility axis.

Deposit-wise Minerals Reserves/Resource:

Table No. 30 Reserve Category as per UNFC - Probable Mineral Reserves, Code (I21 & I22)

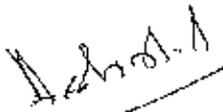
Unit: Million tonnes

Deposit	Total Tonnage (45% Fe)		Saleable Ore (+55%Fe)		Mineral reject (45-55%Fe)	
	Qty.	Grade	Qty.	Grade	Qty.	Grade
Float Deposit	2.04	51.56	0.26	56.38	1.78	50.85
Flank + Hill-Top	22.00	62.06	18.58	63.95	3.42	51.76
TOTAL	24.04	61.16	18.84	63.85	5.20	51.45

Table No. 31 - Reserves Category as per UNFC - Pre-feasibility Mineral Resource, Code (222)

Unit: Million tonnes

Deposit	Total Tonnage (45% Fe)		Saleable Ore (+55%Fe)		Mineral reject (45-55%Fe)	
	Qty.	Grade	Qty.	Grade	Qty.	Grade
Hill-Top	0.43	64.65	0.43	64.65		


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person

Table No. 32 Section-wise Estimation of Probable Reserves (121) Quantity as on 30.06.2020.

Section ID	Sectional area in M ²					Volume in M ³					Tonnage in million tonnes					Section-wise Benchmarks Considered	
	+62	+58-62	+55-58	+45-55	Float Ore	Ave Length	+62	+58-62	+55-58	+45-55	Float Ore	+62	+58-62	+55-58	+45-55		Float Ore
	2,313	235	26	3,507	1,954	150	3,46,950	35,250	3,900	5,26,028	2,93,054	1.21	0.11	0.01	1.32		0.73
GA-08	-	421	-	-	-	150	-	63,201	-	-	-	-	0.19	-	-	-	DT5-9
GA-09	2,313	235	26	3,507	1,954	150	3,46,950	35,250	3,900	5,26,028	2,93,054	1.21	0.11	0.01	1.32	0.73	DT5-6 & DNR-1-2
GA-10	-	103	-	1,290	895	150	-	15,400	-	1,93,458	1,34,204	-	0.05	-	0.48	0.34	DTH11, 13 & 3
GA-11	-	467	965	1,823	1,072	150	-	70,060	1,44,688	2,73,484	1,60,755	-	0.21	0.41	0.68	0.40	DT13C, 12 & 2
GA-12	-	1243	-	231	231	150	-	18,560	-	34,700	34,700	-	0.06	-	0.09	0.09	DTH-1
GA-13	-	-	-	-	192	150	-	-	-	-	28,798	-	-	-	-	0.07	-
GA-14	-	-	62	-	244	150	-	-	9,300	-	36,600	-	-	0.03	-	0.09	GS/RC-6A, GS/RC-1A
GA-15	-	-	95	81	120	150	-	-	14,300	12,208	18,020	-	-	0.04	0.03	0.05	DTRN, GS/RC-16A
TOTAL	2,313	1,350	1,148	6,932	4,707		3,46,950	2,02,471	1,72,1	10,39,87	7,06,111	1.21	0.61	0.48	2.60	1.77	

Note: Times series lithology / grade-wise bulk-density test was carried out at our Gandhamardan Block-A lease, the density considered is 3.5 for +62%Fe, 3.0 for 58-62%Fe, 2.8 for 55-58%Fe & 2.5 for +45-55%Fe & Float ore. For lithology/grade-wise bulk-density considered please refer Table No. 26.


 Ashish K. Samant
 Qualified Person


 Leo Christy A
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Modification of Review of Mining Plan
Including Progressive Mine Closure Plan from
2021-22 to 2022-23

Table No. 33 Section-wise Estimation of Probable Reserves (122) Quantity as on 30.06.2020.

Section ID	Sectional area in M ²				Avg Lithology % Fe	Volume in M ³							Tonnage in million tonnes				Section-wise Boreholes Considered
	-62	+58-62	+55-58	+45-55		Float Ore	+62	+58-62	+55-58	+45-55	Float Ore	+62	+58-62	+55-58	+45-55	Float Ore	
GA-06	13,243	2,072	1,979	6,270	-	9,80,000	1,53,333	1,45,429	4,64,000	-	3.43	0.46	0.41	1.16	-	GS24, 27, 56	
GA-01	13,532	-	-	919	-	10,02,837	-	-	68,000	-	3.51	-	-	0.17	-	GS9, 12, 21, 32 & 45	
GA-02	27,992	-	-	595	-	20,71,429	-	-	44,000	-	7.25	-	-	0.11	-	GS23, 28, 35 & DT158	
GA-03	1,197	2,874	2,634	1,622	378	88,571	2,86,667	1,96,429	1,20,000	28,000	0.31	0.86	0.55	0.30	0.07	DT153 & 37	
GA-04	-	360	48	757	432	-	26,667	3,571	56,000	32,000	-	0.08	0.01	0.14	0.08	DT1643	
GA-05	-	90	241	1,037	162	-	6,667	17,857	76,000	12,000	-	0.02	0.05	0.19	0.03	DT154, 33 &	
GA-06	-	-	820	3,459	162	-	-	-	60,714	2,56,000	-	-	-	0.17	0.64	D58GND011	
GA-07	-	-	-	270	162	-	-	-	20,000	12,000	-	-	-	0.05	0.03		
TOTAL	55,985	6,396	5,743	14,91	1,297	41,42,857	4,73,333	4,25,000	11,04,000	96,000	14.50	1.42	1.19	2.76	0.24		

Note: Times series lithology / grade-wise bulk-density test was carried out at our Gandhamardan Block-A lease, the density considered is 3.5 for +62%Fe, 3.0 for 58-62%Fe, 2.8 for 55-58%Fe & 2.5 for +45-55%Fe & Float ore. For lithology/grade-wise bulk-density considered please refer Table No. 21.



(Signature)
Leo Christy A
Qualified Person

(Signature)
Ashish K. Samantray
Qualified Person



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2021-22 to 2022-23

Table No. 34

Flank & Float Deposit Section-wise Probable Reserves UNFC- 222

Section ID	Sectional area in M ²			Volume in M ³			Tonnage in million tonnes			Section-wise Boreholes Considered	
	-62	+53-58	+45-55	-62	+58-62	-53-58	+45-55	-62	+58-62		+45-55
GA-03	1254	461	-	75	94,055	34,577	-	-	0.53	0.10	-
TOTAL	1254	461	-		94,055	34,577	-	-	0.53	0.10	-

Note: Times series lithology / grade-wise bulk-density test was carried out at our Gandhamardan Block-A lease, the density considered is 3.5 for +62%Fe, 3.0 for 58-62%Fe, 2.8 for 53-58%Fe & 2.5 for +45-55%Fe & Float ore. For lithology/grade-wise bulk-density considered please refer Table No. 26.



Leo Christy A

Leo Christy A
Qualified Person

Ashish K. Samantray

Ashish K. Samantray
Qualified Person



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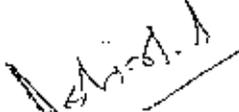
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2021-22 to 2022-23

As per the provisions of MEMC Rules, 2015, as against the last approved review of mining plan for the period 2018-19 to 2022-23, reserves are re-estimated by considering depletion of production/development achieved till 30.06.2020, area under the G1 and G2 level of exploration and borehole data of all the boreholes drilled at the common-boundary, parameters of iron ore body which is exposed after the working of Gandhamardan B-Block lease at the common boundary. In order to convert entire G2 area at Hill-top deposit, due to oversight, the quantity estimated during the last approved review of mining plan document, the reserves/resource are estimated on higher side, hence, with the additional boreholes drilled during the year 2020 orebody profiles were redrawn and what was anticipated with regard to depth persistence and extension orebody along strike with lesser boreholes could not be conformed to, hence, drastic reduction in the reserve/resource quantity estimated during the last approved review of mining scheme.

Borehole interval at the Hill-top deposit is more than 100m across the strike direction, though the interval is less than 100m along the strike and with the regular stratiform nature of the iron orebody, in order to determine the depth persistence of the orebody, G2 level of exploration is considered for geological axis. The other major constraint with regard to the mining of the established iron ore deposit at Hill-Top deposit and part of the Flank deposit is obtaining the Forest Clearance, hence, P2 code is considered under Feasibility axis. The entire iron ore quantity estimated using the geological cross-sections is categorised under Probable Mineral Reserves (122).

For the list of boreholes proposed during period 2021-22 to 2022-23, please refer Annexure No. 24.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



2.0 MINING

A. OPEN CAST MINING

- a) Briefly describe the existing as well as proposed method for excavation with all design parameters indicating on plans / sections.

Mining Method:

By considering the geological parameters of the ore body and the geo-technical observations, conventional open-cast method of mining is opted for developing the deposit after carrying out a controlled blasting and by involving HEMM, in which the faces are gradually advanced side-wards, lowering benches, to win lower level ores. Mode of mining is fully mechanised so as to ensure yearly production schedules in tune with market requirement. The same method shall be continued throughout the anticipated life of the mine.

Loading and Transportation:

Iron ore excavated through controlled blasting are loaded into 20-30t capacity tippers using 2.5-4.0³ excavator.

List of Mining pits and quarries situated within the mining lease is as mentioned below;

Table No. 35

Sl. No.	Parameters	Hill-Top Quarry	Flank Quarry
1.	Quarry Size (L x W x D) in Meters	270x237x16	Quarry 1A 338 x 140 x 55 Quarry IV B: 112x 84 x 4 Quarry IV B1: 64x 24 x 4 Quarry IV B2 & B3 132x 132 x 12 Quarry IV B4: 64 x 116 x 13 Quarry IV B5: 68 x 52 x 4 Quarry IV B6: 268 x 160 x 4 Quarry IV C: 128 x 92 x 25 Quarry IV C1 92x28 x 6 Quarry VI D 338x300 x40 Quarry VI D1: 64x40 x4 Quarry VI E: 234x252 x40 Quarry V C: 328x328 x55

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Qualified Person

Leo Christy A
Qualified Person



Sl. No.	Parameters	Hill-Top Quarry	Float Quarry	Flank Quarry
			Quarry VC I: 80m x 40 m x 17 m Quarry V D: 300 m x 272m x 38 m Quarry VD I: 96 m x 60 m x 10 m	
2.	Total No. of Benches	3	Quarry IVA : 3 Quarry IV B: 1 Quarry IV B1: 1 Quarry IV B2 & IV B3: 2 Quarry IV B4: 1 Quarry IV B5: 2 Quarry IV B6: 3 Quarry IV C: 7 Quarry IV C1 :1 Quarry IV D:6 Quarry IV D1: 1 Quarry IV E: 7 Quarry V C: 5 Quarry VC I:1 Quarry V D:3 Quarry VD I:1	1
3	Top Bench RL (m)	974.80	Quarry IVA :722 Quarry IV B:775 Quarry IV B1: 769 Quarry IV B2 & IV B3: 732 Quarry IV B4: 707 Quarry IV B5: 696 Quarry IV B6: 718 Quarry IV C:795 Quarry IV C1 :776 Quarry IV D:780 Quarry IV D1:782 Quarry IV E:830 Quarry V C:685 Quarry VC I:752 Quarry V D:730 Quarry VD I:755	817.8
4	Bottom Bench RL in Mts.	959	Quarry IVA :700 Quarry IV B: 771 Quarry IV B1: 765 Quarry IV B2 & IV B3: 720 Quarry IV B4: 702 Quarry IV B5: 692 Quarry IV B6: 698 Quarry IV C:770 Quarry IV C1 :770 Quarry IV D:740 Quarry IV D1:778 Quarry IV E:790	810

Ashish K. Samantray
Qualified Person

Leo Christy A
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Sl. No.	Parameters	HBI-Top Quarry	Flust Quarry	Flank Quarry
			Quarry V C:630 Quarry VC I:745 Quarry V D:722 Quarry VD I:750	
5	Average Bench Height in Mts	5.0-6.0	Quarry IVA: -7 Quarry IV B: -4 Quarry IV B1: -4 Quarry IV B2 & IV B3: -6 Quarry IV B4: -5 Quarry IV B5: 3 Quarry IV B6: 7 Quarry IV C: -3.5 Quarry IV C1: -6 Quarry IV D: -6 Quarry IV D1: -4 Quarry IV E: -6 Quarry V C:10 Quarry VC I:7 Quarry V D:3 Quarry VD I:5	7.8
6	Average Bench Width in Mts	5-20	Quarry IVA: -15 Quarry IV B: -80 Quarry IV B1: -20 Quarry IV B2 & IV B3: -22 Quarry IV B4: -12 Quarry IV B5: 3 Quarry IV B6: -40 Quarry IV C: -5 Quarry IV C1: -21 Quarry IV D: -25 Quarry IV D1: -36 Quarry IV E: -20 Quarry V C:10 Quarry VC I:36 Quarry V D:65 Quarry VD I:55	
7	Average Bench Slope Angle	72°-75°	Quarry IVA: -70° Quarry IV B: -60° Quarry IV B1: -70° Quarry IV B2 & IV B3: 60° Quarry IV B4: -60° Quarry IV B5: 60° Quarry IV B6: -60° Quarry IV C: -60° Quarry IV C1: -70° Quarry IV D: -70° Quarry IV D1: -80° Quarry IV E: -70° Quarry V C:50°	75°

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Qualified Person

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Sl. No.	Parameters	Hill-Top Quarry	Float Quarry	Flank Quarry
8	Average Pit Slope angle	27-30°	Quarry VC I: 60° Quarry V D: 70° Quarry VI I: 60° Quarry IVA: -10° Quarry IV B: -7° Quarry IV B1: -5° Quarry IV B2 & IV B3: -15° Quarry IV B4: -6° Quarry IV B5: 10° Quarry IV B6: -8° Quarry IV C: -12° Quarry IV C1: -6° Quarry IV D: -12° Quarry IV D1: -6° Quarry IV E: -12° Quarry V C: -10° Quarry VC I: -06° Quarry V D: -10° Quarry VI I: -5°	37.07°

Working proposals are made based on the exploration carried-out, accordingly the different deposits are delineated, pit wise production proposals are made based on the generation of saleable ore, lead distance to the proposed waste dumps and crushing and screening plants.

Mining Pit is designed maintaining 28-37° pit slope both along the footwall and hanging wall side. During the ensuing plan period, maximum 35° pit slope is proposed with 6 × 8m bench configuration at Flank deposit, 5 × 8m bench configuration at Float deposit and at the Hill Top 10 × 12 m configurations is proposed and at places wherever soft clay bands are encountered, higher bench widths of 8-12mts at Flank deposit is maintained. These slopes are designed based on conditions of the strata and structural attitudes of both hanging wall and footwall formations. The pit slope and the dip slopes are in same direction along the footwall, and are opposite along hanging wall side. Final pit limit is accordingly defined.

Pit limits for the various deposits is drawn on the basis of exploration carried out and will more or less remain as TENTATIVE PIT LIMIT for established ore body of the mine. Once the Forest Clearance obtained for the entire forest land involved in the lease area and with the exploration proposal already made to cover balance lease area during the ensuing plan period, we anticipate the existing Tentative Pit Limits will undergo change and Ultimate pit limits will be incorporated. With pit design and angle of slope as mentioned above, height of active mine faces is about 5-10 meters whereas bench width is between at 8-12 meters. Also in developmental areas 15 meters bench width shall be maintained to ensure easier movement of heavy-duty dumpers. On an average, road gradient is maintained at 1 in 16 except at few places, where it is steeper it will not be less than 1 in 12. It is also ensured

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



Thus, there is clear view of the road ahead for longer distance and sharp curves obstructing sight for less than 30 meters distance are totally avoided.

The method of mining so practiced is found to be most appropriate and will continued to develop all the identified deposits of the mine.

During the ensuing modified plan period from 2021-22 to 2022-23, 0.86millioncubic meter of waste rock shall be generated, entire waste shall be backfilled sequentially in the demineralized portion of the float quarry.

The generated waste shall be transported to the identified location by 20-30 tonner dumpers. Dozer will be deployed continuously to level waste material unloaded by dumpers and spread laterally in area earmarked. Continuous movement of dumpers while unloading will consolidate the ground. Water is regularly sprinkled in rounds over the area to control the fugitive dust.

While building up, waste disposal in stages is properly graded and terraced with provision of contour drainage. Plantation shall be taken up over the matured portion of the backfilled slopes. Plans showing buildup and the sequence of waste disposal along with the existing protective measures during the ensuing plan period are indicated on Plate No. 8A & 8C, 9 & 11 and the profile of sequential backfilling is also shown on the cross sections enclosed as Plate No. 10.

APPROVED

b) Indicate year-wise tentative excavation in Cubic Meters indicating development, ROM, pit wise as in table below.

1. In situ Tentative Excavation:

Table No. 36

REGIONAL CONTROLLER OF MINES
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INDIAN BUREAU OF MINES
भुवनेश्वर/BHUBANESWAR Unit: in million cum

Year	Pit No.	Total tentative excavation	Top soil	OB/SB/IB	ROM		Mineral Reject	Ore/Waste Ratio (Cum/Cum)
					Ore	Mineral reject		
1	2	3	4	5	6	7	8	9
I (2021-22)	Float Deposit	0.78	-	0.21	0.01	0.06	0.06	1: 3.17
	Flank Deposit	0.22	-	0.10	0.05	0.07	0.07	1: 0.86
	Hill-Top Deposit	0.72	0.02	0.22	0.45	0.03	0.03	1: 0.49
	TOTAL	1.22	0.02	0.53	0.51	0.16	0.16	1: 0.82
II (2022-23)	Flank Deposit	0.28	-	0.11	0.12	0.05	0.05	1: 1.5
	Hill-Top Deposit	0.92	0.001	0.22	0.69	0.004	0.004	1: 0.32
	TOTAL	1.20	0.001	0.33	0.81	0.06	0.06	1: 0.38
Total production		2.42	0.02	0.86	1.32	0.22	0.22	1:0.57

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



Table No. 37

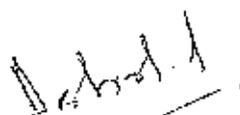
Year	Pit No.	Total tentative excavation, Million CuM	Top soil, Million CuM	OB/SS/IB, Million CuM	ROM, Million Tonnes		Mineral Reject, Million Tonnes	Ore/Waste Ratio (Tonne : Cum)
					Ore, Million Tonnes	Mineral reject, Million Tonnes		
1	2	3	4	5	6	7	8	9
I (2021-22)	Float Deposit	0.28	-	0.21	0.03	0.15	0.15	1: 1.17
	Flank Deposit	0.22	-	0.10	0.13	0.18	0.18	1: 0.32
	Hill-Top Deposit	0.72	0.02	0.22	1.55	0.08	0.08	1: 0.15
	TOTAL	1.22	0.02	0.53	1.71	0.41	0.41	1: 0.26
II (2022-23)	Flank Deposit	0.28	-	0.11	0.36	0.13	0.13	1: 0.22
	Hill-Top Deposit	0.92	0.001	0.22	2.38	0.01	0.01	1: 0.09
	TOTAL	1.20	0.001	0.33	2.74	0.14	0.14	1: 0.11
Total production		2.42	0.02	0.86	4.45	0.55	0.55	1:0.18

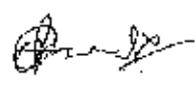
Please Note: Tentative tonnage of the ore is arrived by computing bulk density and recovery factor based on the time series data, the data (bulk density test carried-out for various litho-units/ ore grade from our adjacent mine Gandhamardan Block-B) weighted average bulk density is considered to arrive at the tonnage of ore category of 48-55%Fe & +55%Fe grade. Please refer Table 26 and Annexure No. 26 for the report from NABL accredited lab.

Summary of tentative production & development:

Table No. 38

Year	ROM in Million Tonnes	Waste in Million CuM
2021-22	2.12	0.55
2022-23	2.88	0.331


Ashish K. Samantroy
Qualified Person


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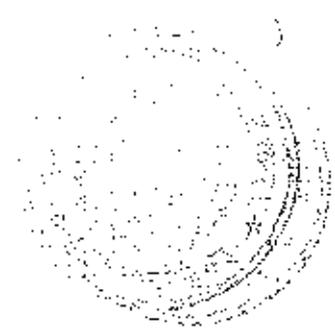
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2021-22 to 2022-23

Table No. 39 - Back calculation for level/section-wise calculation of ore, MR & waste FY 2021-22

Deposit	Section	Level	Average Sectional Area in M ²			Av. Sectional Area in M ²	Volume in M ³			Quantity in Mt.			OS in M. out.		
			Saleable Ore	Miscel. Reject	Top soil		OB	Saleable Ore	Miscel. Reject	Top soil	OB/IB/S B	Saleable Ore		Miscel. Reject	
			+55% Fe	+45-55% Fe			+55% Fe	+45-55% Fe		+55% Fe	-45-55% Fe				
Float Deposit	GA-13 to GA-15	745	-	2	-	2	-	239	-	230	-	0.11	-	0.0002	
		740	-	11	-	18	-	1,080	-	1,800	-	0.03	-	0.002	
		735	-	107	-	225	-	10,669	-	22,460	-	0.27	-	0.02	
		730	-	65	-	329	-	5,540	-	32,860	-	0.16	-	0.03	
		725	-	87	-	372	-	6,680	-	37,160	-	0.17	-	0.04	
		720	38	167	-	424	-	3,400	15,028	-	39,104	0.91	0.38	-	0.04
		715	69	90	-	443	86	5,900	7,700	-	38,080	0.02	0.19	-	0.04
710	-	101	-	418	100	-	16,100	-	41,800	-	0.25	-	0.04		
TOTAL			106	609	-	2,240	9,300	58,018	-	2,13,494	0.03	1.45	-	0.21	
Flank	GA-10 to GA-11	718	-	125	-	626	-	7,500	-	57,560	-	0.02	-	0.04	
		712	185	383	-	362	75	13,860	28,710	-	27,120	0.04	0.07	-	0.03
		706	428	445	-	473	80	34,200	35,580	-	37,800	0.10	0.09	-	0.04
TOTAL			612	953	-	1,460	48,060	71,790	-	1,02,480	0.13	0.18	-	0.10	
Hill-Top	GA-1 to GA-3	980	278	61	152	531	20,260	4,446	11,124	38,768	0.06	0.07	-	0.04	
		970	3,386	-	116	1,767	68	2,30,234	-	7,920	1,20,161	0.79	-	0.12	
		960	3,695	504	-	1,051	55	2,03,215	27,740	-	57,790	0.71	0.07	-	0.06
TOTAL			7,358	565	269	3,349	4,53,729	32,186	19,044	2,16,719	1.55	0.08	-	0.22	
G. TOTAL			8,077	2,127	269	7,049	5,11,089	1,61,994	19,044	5,32,693	1.72	0.40	-	0.53	

Ashish K. Samantray
Ashish K. Samantray
Qualified Person

Leo Christy A
Leo Christy A
Qualified Person





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Modification of Review of Mining Plan
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2021-22 to 2022-23

Table No. 40 - Back calculation for level/section-wise calculation of ore, MIR & waste FY 2022-23

Deposit	Section	Level	Average Sectional Area in M ²			Volume in M ³			Quantity in million tonnes			OB M sum		
			Saleable Ore +55%Fe	MIR +45-55%Fe	Top soil	OB	Top soil	MIR +45-55%Fe	OB	Saleable Ore +55%Fe	MIR -45-55%Fe			
Blank Deposit	GA-10	742	-	-	-	106	-	-	1,000	-	-	-	1,000	
	736	-	-	-	20	-	-	2,220	-	-	-	-	2,220	
	732	-	-	-	50	-	-	300	-	-	-	-	300	
	728	-	-	-	-	-	-	-	-	-	-	-	-	
	718	-	-	-	-	-	-	-	-	-	-	-	-	
	712	-	-	-	-	-	-	-	15,250	-	-	-	15,250	
	705	-	-	-	207	-	-	10,350	-	-	-	-	10,350	
	700	-	-	-	31	-	-	4,100	-	-	-	-	4,100	
	694	-	-	-	456	-	-	36,050	-	-	-	-	36,050	
	654	-	-	-	841	-	-	63,108	-	-	-	-	63,108	
	TOTAL						1,296						1,296	
HBI-Top Deposit	GA-01	930	-	-	9	-	-	-	450	-	-	-	450	
	920	-	-	19	405	-	-	1,020	-	-	-	22,530	23,550	
	910	-	-	-	3,065	-	-	7,484,490	-	-	-	67,130	7,551,620	
	900	-	-	-	1,386	-	-	1,52,435	-	-	-	1,33,370	1,65,805	
	850	-	-	-	8	-	-	4,180	-	-	-	675	4,855	
	840	-	-	-	425	-	-	43,529	-	-	-	0,15	43,679	
	TOTAL												22,530	
	G. TOTAL													32,596

Ashish K. Samantrey
Ashish K. Samantrey
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Leo Christy A
Leo Christy A
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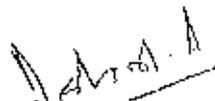
Modification of Review of Mining Plan
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2021-22 to 2022-23

Year-wise production and development plan

Deposit-wise Excavation Proposed

Table No. 41- Float Deposit

Bench Geometry	Height (m)	2021-22	2022-23
	Width (m)	5	
Quarry Developm ent	Location (Quarry Name)	8	
	Extent of Development (in UTM)	Float Quarry	
	Sections considered for development	344355E to 344510E & 2390780N to 2390975N	
	No. of Benches	GA 13 to GA-15	
	No. of Benches in Ore	8	
	No. of Benches in waste	1 (along section GA -14)	
	Benches considered for development with RL	4 (along section GA -14)	
	Top RL	710 to 745	
	Bottom RL	745	
	Direction of advancement	710	
	Dimension of quarry at the end of the year including existing benches	North-south & East-west 400m (w) & 600m (L)	
	Area occupied in Sq. m		
	Overall quarry slope angle	1,98,196	
	Production of ore in Mt	16°	
	Generation of mineral rejects in Mt	0.03	
	Production of ROM (Ore+ Mineral Reject) in Mt	0.15	
	Total generation of waste cum	0.18	
	Area backfilled in Ha.	0.21	
	Area reclaimed & rehabilitated in Ha.	6.47	4.13
		1.95	


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Qualified Person

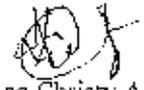
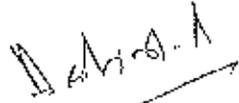

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Qualified Person



Table No. 42- Flank Deposit

Bench Geometry	Height (m)	2021-22	2022-23
		Width (m)	6
Quarry Developm ent	Location (Quarry Name)	Flank Quarry	Flank Quarry
	Extent of Development (in UTM)	344050E to 344316E & 2390780N to 2390975N	343950E to 344370E & 2390760N to 2391020N
	Sections considered for development	GA-10 to GA-11	GA-10 to GA-11
	No. of Benches	3	6
	No. of Benches in Ore	3 (along section GA10)	3 (along section GA10)
	No. of Benches in waste	3 (along section GA10)	2 (along section GA10)
	Benches considered for development with RL	706 to 718	694 to 706, 730 to 742
	Top RL	718	706, 742
	Bottom RL	706	694, 730
	Direction of advancement	North-south & East-west	North-south & East-west
	Dimension of quarry at the end of the year including existing benches	270m (w) & 520m (L)	270m (W) 650m (L)
	Area occupied in Sq. m	1,36,538	1,60,588
	Overall quarry slope angle	19°	29°
	Production of ore in Mt	0.13	0.36
	Generation of mineral rejects in Mt	0.18	0.13
	Production of ROM (Ore + Mineral Reject) in Mt	0.31	0.49
	Total generation of waste cum	0.10	0.11
	Area backfilled in Ha.	-	-
	Area reclaimed & rehabilitated in Ha.	-	-


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



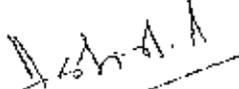
Table No. 43

Hill-top Deposit

		2021-22	2022-23
Bench Geometry	Height (m)	10	10
	Width (m)	12	12
Quarry Development	Location (Quarry Name)	Hill-top Quarry	Hill-top Quarry
	Extent of Development (in UTM)	345208E to 345591E & 2392080N to 2392390N	345160E to 345560E & 2392100N to 2392400N
	Sections considered for development	GA-01 to GA-03	GA-01 to GA-03
	No. of Benches	3	6
	No. of Benches in Ore	3 (along section GA2)	5 (along section GA2)
	No. of Benches in waste	2 (along section GA2)	1 (along section GA2)
	Benches considered for development with RL	980 to 960	990 to 940
	Top RL	980	990
	Bottom RL	960	940
	Direction of advancement	North-south & East-west	North-south & East-west
	Dimension of quarry at the end of the year including existing benches	225 (W) 260 (L)	313 (W) 319 (L)
	Area occupied in Sq. m	72,758	107,758
	Overall quarry slope angle	30°	30°
	Production of ore in Mt	1.55	2.38
	Generation of mineral rejects in Mt	0.08	0.01
	Production of ROM (Ore + Mineral Reject) in Mt	1.63	2.39
	Total generation of waste cum	0.24	0.22
Area backfilled in Ha.	-	-	
Area reclaimed & rehabilitated in Ha.	-	-	

Summary of Excavation Proposed

Quarry Development	2021-22	2022-23
Area occupied in Sq. m	4,07,492	2,68,346
Production of ore in Mt	1.71	2.74
Generation of mineral rejects in Mt	0.41	0.14
Production of ROM (Ore+ Mineral Reject) Mt	2.12	2.88
Total generation of waste Mt	1.38	0.81


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



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

Estimated available material (cum)

Table No. 44

Dump identification No.	Existing Quantity in (Cum)	Area Covered in Hectares	Year-wise handling (cum)	Estimated Recovery of Saleable material	Reject (cum)
D-1	55,000	0.55	-	-	-
D-2	30,000	0.27	30,000	nil	30,000

Mineral reject having an approximate quantity of 1.34 million tons was temporarily stacked over the mineralised area in the subject lease which belongs to the adjacent lease Gandhamardan Block-B of same lessee, as the area is already proposed for development, same will be re-handled and shifted to Gandhamardan Block-B lease in a phased manner.

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

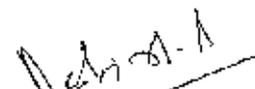
Quarry-wise mining operations proposed for the year 2021-22 and 2022-23, its extent of working and level of working and extent of waste dumping by way of sequential backfilling in the demineralized portion of the float quarry are indicated in the **Table No. 45**.

Deposit-wise proposed production location as mentioned above in the Table is based on the systematic mine working for generation quantity and quality ore, working location to be in close proximity and at safer distance to the backfilling area in the pit and also to the crushing and screening plant.

Yearly Deposit-wise Development and Production during the ensuing mining plan period are shown on the enclosed plans - **Plate No. 8A, 8C & 9** also the bench and the profiles of sequential backfilling are indicated in the enclosed cross section **Plate No. 8B, 8D & 10**.

d) Describe briefly giving salient features of the proposed method of working indicating Category of mine.

By considering the quarry-wise geological parameters of the ore body and the geo-technical observations, conventional open-cast method of mining is opted for developing the deposit by controlled blasting and drilling and using the HBEM for the excavating the blasted material and transported to the proposed crushing and screening plant, wherein the faces are gradually advanced side-wards, lowering benches, to win ores situated at lower levels by using drilling/blasting, ripping and dozing and excavation of the hard laminated ore, semi-hard lateritic ore and soft friable ore respectively. To ensure yearly production schedules, mode of mining is mechanical. The same method shall be continued throughout the anticipated life of the mine and the Mine is categorized under 'A' category.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



- e) Describe briefly the layout of mine workings, pit road layout, the layout of faces and sites for disposal of overburden/waste along with ground preparation prior to disposal of waste, reject etc. A reference to the plans and sections may be given. UPL or ultimate size of the pit is to be shown for identification of the suitable dumping site.

Considering the size of the deposit and with the enhancement of production from the existing capacity of 0.35MTPA to an enhanced annual targeted proposed production of 2.88MTPA of iron ore, as mentioned earlier, due to the hard nature of the hard massive and laminated ore, formations are exploited by controlled drilling and blasting and then mechanical mode of working is opted and all infrastructure and machineries available are utilized for the purpose in achieving the proposed production target and other allied mining activities. By considering the geo-technical properties ore and waste rock of the identified deposits of the mine, 80% of the total production shall be produced by Drilling and blasting and rest 20% by excavation.

Deep hole drilling and blasting will be made to break hard laminated and massive ore and waste rock. Drilling shall be carried-out using 115mm diameter drill machines with 3.0m burden and 3-3.50m spacing. Holes shall be charged with Slurry explosives and initiated using electronic detonator/NONEE.

For handling the ore stacks at mine-site, 4 nos. of wheel loader (2.5 - 4.5 cum) is provided to keep in tune with quantum of handling.

For road making and continuous maintenance of mine roads 2 nos. of motor graders are deployed on permanent basis whereas for maintaining waste disposal sites dozers are in use.

For hauling the generated waste rock to the demineralized portion of the pit, 20-30 tonner dumper, are used.

Mining Pit is designed maintaining an average pit slope which varies from 16° to 35° for the Float, Flank and the Hill-Top quarry, variation in the bench parameters is mainly based on the geotechnical properties and hill slope accordingly the height of the active mine faces is about 5-10 meters whereas bench width is between 8to 12meters.

On an average road gradient is maintained at 1 in 16 and at steeper places, it will not be less than 1 in 12. It is also ensured that there is clear view of the road ahead for longer distance and sharp curves obstructing sight for less than 30 meters' distance are totally avoided.

The proposed development/production during the modified proposal is such that the pit in Float quarry shall be demineralized and taken-up for sequential backfilling of the generated waste from float, flank and hill-top quarry. During proposed period for 2021-22 and 2022-23, 0.88 cum million of waste shall be generated and the entire quantity of generated waste will be utilized for pit reclamation in the mined-out pit by sequentially backfilling. The generated waste shall be transported to the identified location by 20-30 ton capacity dumpers. Dozers are provided continuously to level waste material unloaded by dumpers and spread laterally in area earmarked. Continuous movement of dumpers while unloading

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



will consolidate the ground. Water is regularly sprinkled in rounds over the area to control the fugitive dust. Thus, with dozing and consolidation the reclaimed waste dump is built up in stages.

As and when the portion of area reclaimed by backfilling becomes inactive, same shall be rehabilitated by plantation.

The proposed workings are suitably at safe distance from the back-filling area, the existing dumps are on hard ground and proper terraces are maintained & there is no possibility of slides etc.

Plans showing buildup and the sequence of waste disposal along with the protective measures proposed during the modified mining plan period are indicated in Plate No. 8A, 8C & 9 also the bench and backfilling profiles is shown on cross section Refer Plate No. 8B, 8D & 10.

For the Proposed location of the working limits please refer Table No. 41 to 43 above.

Table No. 45, Proposed Waste Dump Details:

Year	Backfilling ID	Location		RI. in Mts	Area in Ha
		Easting	Northing		
2021-22	BF-1	344020E to 344240E	2390040N to 2390380N	640 - 670	3.86+ existing area
	BF-1a	344080E to 344390E	2390515N to 2390710N	680 - 710	2.61
2022-23	BF-1	344140E to 344330E	2390210N to 2390576N	670 - 697	4.13+ existing area

Extent of mechanization.

Describe briefly including the calculation for adequacy and the type of machinery and equipment proposed to be used in different mining operations.

During the ensuing modification in the review of mining plan period, the projected average annual handling including ore and waste rock quantity for the mine varies from 3.69 to 4.00 million tons per annum. The proposed annual ore production for the mine varies from 2.12 to 2.88 Mt and waste rock handling varies from 0.81 to 1.38 million tons per annum. The proposed total annual handling capacity of the loading units provided at the Mine as a whole is 4.71 million tons (considering peak handling) are sufficient to meet proposed handling target.

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



List of mining machinery existing and proposed to be deployed in the mine for the mining and allied activities is as listed under Table No. 47 & 48.

Table No. 47 – List of Existing Machineries

Parameters	HEMM Fleet
Excavator, 1.23 - 0.9 cum	3
Wheel loader	2
Drill 115-150 mm with compressor	1
Tanker	2
Motor Grader, 125KW	2
Jeep	8

Table No. 48– List of Proposed Machineries

Parameters	HEMM Fleet
Excavator, 1.23 – 4.5 cum	10
Dumper 20-30t	21
Drill 115-150 mm with compressor	2
Dozer, 324 KW	3
Motor Grader, 125KW	2

Considering the proposed production and development and product handling, following fleet of excavator and hauling units are proposed at the mine;

Production and waste Handling details:

- Entire ore production and waste handling will be through 2.5-4.5m³ capacity excavator.

Table No. 49

Parameter	Iron Ore Quarry in Mt		
	Ore Hauling	Waste Rock	Finished Product handling
Maximum Excavation Qty.	2.88	1.38	2.88

BC	=	Bucket Capacity	=	3.50 m ³
SF	=	Swell Factor	=	0.30
FF	=	Fill Factor	=	0.80
TF	=	Tonnage Factor	=	2.6
N	=	Efficiency	=	0.8

Asish K. Samantray

Asish K. Samantray
Qualified Person

Leo Christy A

Leo Christy A
Qualified Person



CT = Cycle Time = 30 Seconds

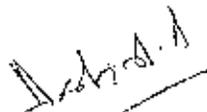
Hence, TPH = $(3,600 \times 3.50 \times 0.30 \times 0.80 \times 2.6 \times 0.8) / 30 = 210$ tons

Considering 250 working days \times 14hrs/day

Yearly handling by one Excavator = $250 \times 14 \times 210$ tons
= 735,000 (0.735 MTPA)

Considering the maximum handling of 0.735 MTPA per excavator, with 6 excavators, 4.71 MTPA can be achieved which is sufficient to handle in situ ore and waste rock.

Balance quantity of processed iron ore - CLO and fines after crushing and screening through sizing and mechanical sorting - 2.88 MTPA of product shall be handled through 4 excavators / wheel loaders of 2.50-3.50M³ capacity excavators;


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



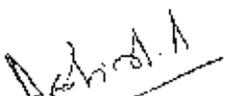
Dumper Fleet Calculation

- i. ROM and waste handling through 20-30tonner dumper capacity total of 4.71 MTPA

Table No. 50

Sl. No.	Parameters	ROM & waste handling	Product handling	Unit of Measurement
1	Max. Qty. to be handled	4.26	2.88	MT/Annum
2	Dumper Capacity	35	35	tonnes
3	Payload	28	28	tonnes
4	Dumper Speed (up-haul)	20	20	Km/hr
5	Dumper speed (down-haul)	25	25	Km/hr
6	Lead dist. (up-haul)	0.50	0.50	Km
7	Lead dist. (down-haul)	0.50	0.50	Km
8	Lead dist. (level)	0.50	0.50	Km
9	Required Swing for loading	3	3	nos.
10	Loading time	84.51	124.33	Sec
11	Hauling time (loaded)	180	180	Sec
12	Hauling time (empty)	144	144	Sec
13	Positioning time	60	60	Sec
14	Total Cycle time	468.54	468.54	Sec
15	Theoretical handling/hr./dumper	215.14	215.14	tonnes/hr/dumper
16	Actual handling considered based on the field conditions (80% theoretical handling)	172.11	172.11	tonnes/hr/dumper
17	Availability	0.80	0.80	%
18	Utilization	0.75	0.75	%
19	Not Utilization	0.60	0.60	%
20	Effective run hrs./dumper/annum (250 days × 14 hrs per day)	3,500	3,500	hours
21	Handling per annum/dumper	0.36	0.36	Mt/dumper
22	No. Dumper required	13	8	nos.

1


Ashish K. Samantray
Qualified Person

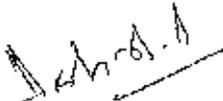

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Qualified Person



Drilling Fleet calculation

Table No. 52

Parameters	Details	Unit
Total Excavation Quantity	4.26	Mt
% of Rock Requiring Blasting	40	%
Total Excavation requiring blasting, Mt	1.70	Mt
Hole Dia	115	mm
Drill Deployment % for Drilling	100	%
Burden	3.0	m
Spacing	3.5	m
Bench Height	5-10	m
Subgrade	0.6	m
Blast hole Depth	5.5-12	m
Rock Density	3.5	t/cu.m
Yield/Hole	150	tonne
Drill Factor	27.30	t/m
Drill rate	10.00	m/hour
Drill capacity /hour	273.00	t/hour
Availability	78	%
Utilization	52	%
Effective run. Hrs/drill/annum	3000.00	Hrs
Production capacity/ yr/drill	0.82	Mt
Actual Production capacity/ yr/drill (80% of theoretical)	0.66	Mt
Total Drills Required	3	Nos.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



Blasting

Broad blasting parameter like charge per hole, blasting pattern, charge per delay, maximum no. of holes blasted in a round, manner and sequence of firing etc.

Table No. 53

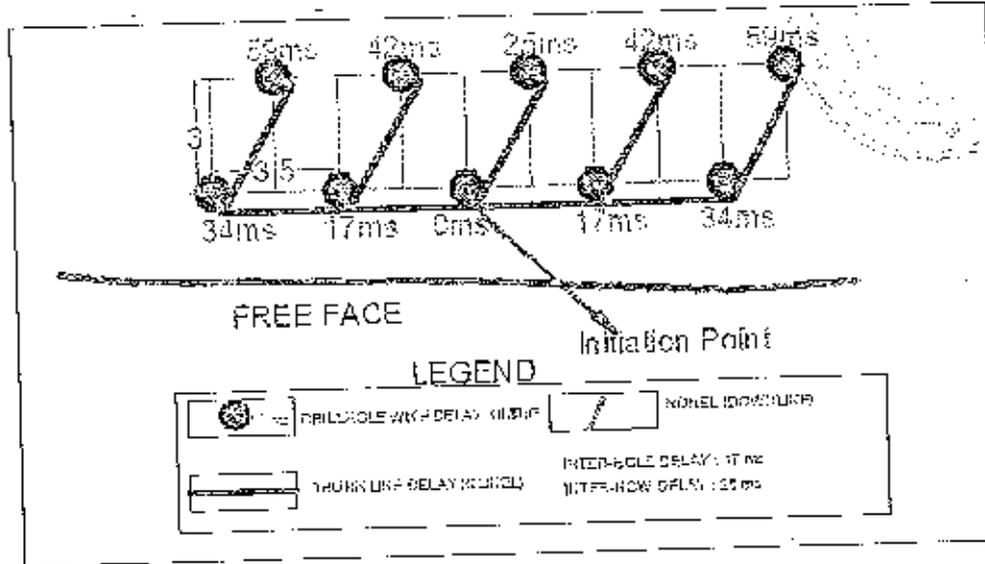
Parameters	ROM	Waste	Unit
Total Excavation	2.88	1.38	Mt
% of Rock Requiring Blasting	40	40	%
Total Excavation requiring blasting, Mt	1.15	0.55	Mt
Hole Dia	115	115	mm
Drill Deployment % for Drilling	100	100	%
Burden	3	3	m
Spacing	3.5	3.5	m
Bench Height	5-10	5-10	m
Subgrade	0.5	0.5	m
Hole Depth	5.5-12	5.5-12	m
Stemming	3	3	m
Charge Length	2.5	2.5	m
Explosive Density	1.1	1.1	g/cc
Loading density	11.4	11.4	kg/m
Total explosive charge / hole	28.5	28.5	kg
Rock Density	3.5	2.5	t/cu.m
Yield/Hole	136	136	tonne
Total Holes/yr	8,455	5,368	Nos.
Drill Factor	27.3	27.3	t/m
Total Meterage required/yr	76,095	48,312	m
Total no. of holes to be blasted/year	13,823		Nos.
Blasting frequency/week	3	3	Nos.
No. of operating faces/round	3	3	Nos.
No. of holes/face	7	5	Nos.
No. of Row/blast	2	2	Nos.
No. of Holes/Row	4	4	Nos.
Drilling Pattern	Staggered		
Initiation System	Electronic detonator/NONEL		
Firing Pattern	Wide V-Cut		
Explosive consumption/year	240,968	152,988	kg
Explosive consumption/blast	209	143	kg
Powder Factor	4.79	4.79	t/kg

Ashish K. S
Ashish K. Sumantray
Qualified Person

Leo Christy A
Leo Christy A
Qualified Person



Typical Firing Pattern for designed blast with NONEL



Blasting Parameters:

Table No. 54

Parameters	Hill-Top Quarry	Quarry SD
Drillhole diameter	115mm	115mm
Burden	2.5mt	3.0mt
Spacing	3.0m	3.5mt
Bench height	10.0mt	5.0mt
Blast-hole depth	11.0mt	5.5mt

Table No. 55 - Explosive Storage details:

Explosive License No.	D/ HQ/OR/22/24(E12863) valid till 31.03.2025
Location	Latitude: 21° 36' 30.75" Longitude: 85° 30' 12.76"
Address	Saukati Post P.S.-Raisuan, Sadar Keonjhar District Odisha
Explosive Van License No.	i) OR09E9047, L.C.no. E/EC/OR/25/110(25088) ii) OR09F0558, L.C.no.-E/EC/OR/25/111(25087)
Magazine Capacity	Nitrate mixture: 3,500 tons × 15 times/month = 52,500 tons. Safety fuse: 40,00mts. Detonating Fuse: 20,000 mts Detonator: 30,000 nos.
Type of Explosives	i) Slurry ii) Nonel iii) ED

Blasting studies have been carried out in the Gandhamardan -A Iron Ore Mines.

Ashish K. Sahu
Qualified Person

Leo Christy
Qualified Person



Ground vibration predictor equation established for the mines based on the trial blast results is given below.

For Hill top Quarry

$$V = 417.8 \{D/(Q^{0.5})\}^{-1.265}$$

For Float & Flank Quarry

$$V = 219.6 \{D/(Q^{0.5})\}^{-1.281}$$

Where

V = Peak Particle Velocity in mm/s

D = Distance between location of blast and Monitoring Station

Q = Maximum explosive Charge per delay

Considering the above blast design, peak particle velocity (PPV) on the basis of above predictor equations for different villages at a maximum envisaged charge per delay of 88.96 kg is given below.

Table No. 56

Village	Nearest Quarry to be operated	Distance in mts.	maximum envisaged charge per delay Q, kg	PPV, mm/s
Kainsari	Q-VD	940	114	0.709
Danra	Q-VC	585	114	1.301
Lunghar	Q-VC	2,100	114	0.253
OMC Colony	Q-VC	1,000	114	2.356
Suakati	Hill-top	990	114	1.357

For the location of Villages mentioned above, please refer Key Plan enclosed as **Plate No. 1**.

Maximum permissible peak particle velocity (PPV) for domestic house & structures (kachcha brick & cement) not belonging to owner for a dominant excitation frequency range of >8 Hz is 5 mm/s as per DGMS Tech Circular no. 7 of 1997. It reveals from above Table that PPV is within permissible limit for the designed blast.

- D) Conceptual Mine planning up to the end of lease period taking into consideration the present available reserves and resources describing the excavation, recovery of ROM, disposal of waste, backfilling of voids, reclamation and rehabilitation showing on a plan with few relevant sections.**

For a mine, preparation of Conceptual Mine Plan amounts to fore-seeing in totality and planning for mining and related activities through-out its life span, till such time all the usable mineral ores are exhausted to the economical limits and lease area shall be reclaimed to the extent possible. Apart from proposed exploration to cover the entire mineralized area under G1 category, physico-chemical and mineralogical parameters which form primary basis for compilation of conceptual mine plan, several other factors such as grade of mineral

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



reject, marketability and the norms laid down by the govt. agencies from time to time do play important roles. Also, with ever increasing and changing needs of humanity coupled with technological advancements, mineral reject ores of the date become marketable ores of future hence, with proposed expansion in production of 2.88MTPA, the anticipated life of Gandhamardan Block-A Iron Ore Mine will extend further.

Therefore, preparation of ideal conceptual mine plan for any mine is difficult and such plan prepared, remains acceptable only under given circumstances. It cannot be over looked that, such plan undergoes amendments and revisions in the course of progressive stages of exploration and exploitation.

While preparing Conceptual Mining Plan of Gandhamardan Block-A Iron Ore Mine, to contain with minimal adverse effect on the environment, mining pit is so designed that, towards end of conceptual period broken up area remains limited to 22% of the total lease area.

It is also borne in mind to enhance economic importance of the area affected; there is positive contribution to the environment and socio economic development of the region.

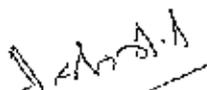
With present rate of mining at 2.88 MTPA of iron, as of 30-06-2020 based on the re-estimated and updated ore reserves of the mine, the tentative anticipated life span of the Mine extends beyond 8 years. However, with developing market trend and demand for the ore hitherto considered as mineral reject /unsaleable, with the proposed exploration to cover entire mineralized zone under G1 stage, life of the mine shall be increased further.

During modification in the review of mining plan period 2021-22 to 2022-23, 5.0Mt of ROM is proposed at average ore to waste ratio of 1: 0.4. Subsequently during next block of plan period and till the end of lease period, 19.47 million tons of production is proposed, hence, from the estimated reserves/resource of 24.46 Mt and with the rate of proposed production, entire reserves shall be excavated, but in view of limited mineralized area under G1 exploration, we anticipate there will be further increase mineable reserves, hence, LOM will increase further. During the ensuing plan period, subsequent 5-year plan period till the end of lease period, exhausted portion of the mined-out pit is proposed for reclamation by way of back-filling, with the statues in place entire reclaimed area will be rehabilitated by de-grassing the area to the extent possible.

As of now, the established iron ore body is explored by drilling 58 boreholes (core-drill & DTH) with cumulative running meterage of 1789.30m with due objectives to ascertain

1. Extent of mineralization,
2. Techno-economical depth of ore persistence and
3. From the point of view of depicting:

- a) Total mineral resource and
- b) Estimating mineable ore reserves.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



The following table highlights the quantity ore/waste rock proposed to be handled during the ensuing plan period and during the subsequent block of plan period till end of lease period;

Table No. 57

Unit: Qty. in million tons

Year	Saleable Ore		Mineral Reject	ROM	Waste Rock million cum	Ore to Waste Ratio (tons/cum)
	Qty.	Fe% Grade				
2021-22	1.71	63.02	0.41	2.12	0.55	1:0.26
2022-23	2.74	63.95	0.14	2.88	0.33	1:0.11
Conceptual Stage	14.81	+63%Fe	4.66	19.47	11.81	1:0.6

Disposal of waste rock;

Waste rock consists of lateritic-soil, shale, hard BIFs and associated clay and top soil, which are nontoxic in nature and devoid of heavy metals. During the ensuing plan period 0.86 million cubic meter of waste shall be generated for the proposed ROM, the entire quantity of the generated waste shall be sequentially backfilled in the demineralized portion of the Float quarry. For the year-wise disposition of waste, please refer enclosed Plate No 8A, 8C & 9.

For the quantity of waste to be handled during ensuing plan please refer Table No. 57 above and up to the conceptual period is as mentioned in below Table;

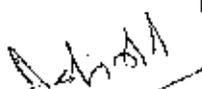
Table No. -58

Waste Disposal proposal till conceptual period.

Backfilling -ID	Location (Easting/northing)	Qty. in M Cum	Area Covered in Ha	RI		No. of Terraces
				From	To	
BF-1	344375E to 344530E & 2390284N to 2390756N	0.72	7.82	707	755	4
BF-2	343965E to 344518E & 2390625N to 2391240N	4.96	20.2	700	760	6
BF-3	345215E to 345630E & 2392090N to 2392415N	2.53	8.93	900	960	6
BF-4	345685E to 346080E & 2391400N to 2391880N	4.32	12.07	700	770	7
Total Dumping proposal at conceptual stage		11.81	50.62			

During the course of mining, reclaimed area shall be protected as mentioned below:

1. Embankment shall be created all along the toe of the dump


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2. Garland drains will be provided/regularly desilted to arrest the surface runoff and wash off of the dump material.
3. The matured portion of the dump slope shall be taken for rehabilitation by planting local tree species.
4. In addition to above, if any additional protective measures are required, such as bunds, trenches, drains, rubble walls, embankment etc, the same will be constructed.

For the details of protective measures and location, please refer enclosed reclamation Plan - Plate No. 11.

Unsaleable / Sub grade ore management:

Mineral reject of 45-55% Fe grade generated incidental to mining which is about 0.55 Mt, generated during the ensuing plan period and 4.65Mt of quantity is tentatively proposed to be generated during subsequent block of plan period till the end of lease period. Entire generated Mineral reject will be suitably blended with the higher-grade ore and sold at pit-head. If required, the generated mineral-rejects shall be sold directly to the buyers depending upon the market demand.

Land-use pattern at the end of the conceptual period is as mentioned below;

Table No. -59

Gandhamardan Block-A Iron Ore Mine - Land use Pattern			
(unit: in Hectares)			
Type of activity	Present Land-use	At the end of Plan period 2022-23	Conceptual Land-use
Area under mining	58.719	73.149	138.432
Storage for Top Soil	-	-	-
Waste Dump site	0.822	0.552	0.552
Mineral Storage	15.938	15.938	-
Infrastructure	2.634	2.634	2.634
Roads	12.909	21.069	15.073
Railways	-	-	-
Green Belt	12.180	12.180	210.006
Tailing Pond	-	-	-
Effluent Treatment plant	-	-	-
Mineral Separation plant	-	-	-
Township area	10.445	10.445	10.445
Others - Statutory barrier, unutilized land, agricultural land etc.	456.042	433.722	241.434
Total	618.576	618.576	618.576

Ashish K. Samantray
Qualified Person

Leo Christy
Qualified Person



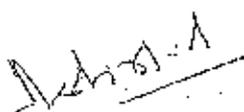
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H. UNDERGROUND MINING
-Not Applicable




Ashish K. Samant
Qualified Person


Leo Christy A
Qualified Person



3.0 MINE DRAINAGE

- a) **Minimum and maximum depth of water table based on observations from nearby wells and water bodies.**

The general groundwater table in the lease area is 643mRL above mean sea level. Pit working proposed during the modification in the review of mining plan period and with an anticipated working up to the conceptual period, the deepest pit working shall be much above the general ground-water Table.

- b) **Indicate maximum and minimum depth of working.**

Maximum and minimum depth of workings of existing quarry, at the end of proposed period and conceptual stage is given below:

Table No. 60

Sl. No.	Quarry-10	Present Level		Level proposed at the end of plan period		Level/depth achieved at the end of Lease period	
		Top	Bottom	Top	Bottom	Top	Bottom
1	Hill-top	990	985	990	940	1010	685
2	Flank Quarry	818	716	742	694	992	676
4	Float Quarry	733	626	745	610	755	626

- c) **Quantity and quality of water likely to be encountered, the pumping arrangements and the places where the mine water is finally proposed to be discharged.**

As the mine is located at high altitude, the rain water will flow through natural drainage course, rain water discharge from the mining lease is monitored as per the MOEFCC guideline, all the parameters are within the permissible limits.

- d) **Describe regional and local drainage pattern. Also indicate annual rainfall, catchment area, and likely quantity of rainwater to flow through the lease area, arrangement for arresting wash offs etc.**

The lease area occupies an area centered on a ridge like escarpment, which runs in north-south direction. The top of the ridge at the lease has a peak of 1010mRL and bottom of the escarpment is at 620mRL, there are few gullies which run from top of the escarpment on both eastern and western slopes.

The drainage pattern in and around the mining lease is mainly dendritic to sub-dendritic in nature and has moderate drainage network within the lease area. The drainage is mainly influenced by the rock property than the structural features. The ridge of the Gandhamardan hill roughly divides the mining lease area into eastern and western part. The drainage channels emerging from the eastern part of the lease area flows down and joins Kadalnadi, which further flows northward and finally joins Ardelnadi, which is a tributary of Baitani

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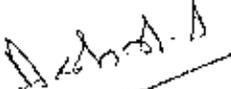
Ashish K. Samantray

Leo Christy A
Qualified Person



River. The western part of the lease area is drained by several drainage channels, which forms Patarpaginadi and Haminadi which flows towards the west-north-west and north-west respectively. The Patarpaginadi joins the Banninadi at about 7.8Km north-west of the mining lease. The Banninadi flows towards the north-west and joins Baitarani River at 19Km north-north-west of the lease area. Some streams from western side of the lease joins Chandanala, which flows towards west to finally join Baitarani river.

Average annual rainfall recorded at IMD observatory at Keonjhar is 1,269mm. the south-west monsoon last from mid-June to mid-September and the area gets more than 80% of annual rainfall during this period.


Ashish K. Samantroy
Qualified Person


Leo Christy A
Qualified Person



4.0 STACKING OF MINERAL REJECT / SUBGRADE MATERIAL AND DISPOSAL OF WASTE

- a) Indicate briefly the nature and quantity of top soil, overburden/waste and the mineral rejects to be disposed off.

Table No. 61

Year	Top Soil (cum)		Total generation	Waste (cum)			Mineral Rejects (tonnes)			
	Re-use/Spreading	Storage		Backfilling	Storage (dumping)	Utilization	Total generation	Storage	Blending	Beneficiation
2021-22	0.02	-	0.53	0.53	-	-	0.41	-	0.41	-
2022-23	0.001	-	0.33	0.33	-	-	0.14	-	0.14	-

Please Note:

As per the buyer's requirement, entire Mineral reject proposed to be generated from float, flank and hill-top quarry shall be blended with the higher-grade ore and sold at the pit-head. However, quantity of mineral reject which is unutilized shall be stacked temporarily within the lease area at a designated site which will be from a safer distance from mentioned quarries. If required, the generated mineral-rejects shall be sold directly to the buyers depending upon the market demand.

Overburden/Waste rock:

Waste rock consists of top soil, laterite, lateritic-soil, shale, and BHJ are nontoxic in nature, during ensuing modification in review of mining plan period, total of about 2.19 million tons of waste will be generated from Float, Flank and Hill-top quarry. Entire generated quantity is proposed for sequential backfilling over the demineralized portion of the pit. As and when that part of the backfilled slopes and top terraces become inactive, re-grassing will be carried-out along with plantation.

For the proposed year-wise generation of waste rock from Float, Flank and Hill-top quarry, please refer to Table No. 36.

For the list of existing waste dump within the lease area, please refer Table No. 44.

- b) The proposed dumping ground within the lease area be proved for presence or absence of mineral and be outside the UPL unless simultaneous backfilling is proposed or purely temporary dumping for a short period is proposed in mineralized area with technical constraints & justification.

As mentioned above, entire waste generated from both the float, flank and Hill-top quarry during the modified mining plan period shall be backfilled sequentially in the demineralized portion of the pit. As mentioned, entire pit is completely demineralized, requisite permission already obtained from IBM for sequential backfilling in the mine-out pit.

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Qualified Person

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b) Attach a note indicating the manner of disposal of waste, configuration and Sequence of year wise build-up of dumps along with the proposals for protective measures

As mentioned in the above paragraph, during the ensuing plan period and in subsequent plan period till the conceptual period, entire quantity of generated waste shall be sequentially backfilled in the denitrated portion of the pit.

Refer Table below, Table No. 62 and Plate No. 8A, 8C & 9 for the Year-wise backfilling configuration during the ensuing modified plan period.

Table No. 62 - Location-wise waste disposal;

Year	Waste Generation in Million CuM	Back Filling Destination	Backfilling Location	Waste Qty in Million CuM	Area in Ha	Bottom RL	Top RL	No. of Terrace	Individual Terrace Height
2021-22	0.53	BF-1	344020E to 344240E & 2390040N to 2390380N	0.34	3.86 + existing area	635	670	5	1 st - 4m, 2 nd - 6m, 3 rd - 8m, 4 th - 8.7m 5 th - 7.5m
			344080E to 344390E & 2390515N to 2390710N	0.19	2.61	680	710	4	1 st - 7m, 2 nd & 3 rd - 8m, 4 th - 7m
		Total		0.53					
2022-23	0.33	BF-1	344140E to 344330E & 2390210N to 2390576N	0.33	4.13 + existing area	670	697	3	1 st & 2 nd - 6m, 3 rd - 3.7m
C Total	0.86			0.86					

During the course of mining, backfilling shall be protected as mentioned below:

- 152 running meter of retaining wall shall be constructed all along the toe of the backfilling.
- 316 running meters of Garland drains will be provided to arrest the surface runoff and wash off of the backfilled material as well as back filled material.
- About 2-silt settling ponds of adequate size shall be constructed at the strategic locations, so as to have an adequate retention time of the silt before letting clean water in to the natural drains.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



4. In addition to above, if any additional protective measures are required, such as bunds, trenches, drains, retaining wall, embankment etc. the same will be constructed.

Existing Environmental Protective Measures:

Table No. 63

Location	Garland Drain		Location	Retaining Wall	
	Name/No.	L × W × H (m)		Name/No.	L × W × H (m)
10-10 and fines ore of Hill-top	Garland Drain	410 × 1 × 1		Compound wall the stack yard	750 × 0.25 × 1.83
Hill-top quarry of dumping area and sub-grade dump of Hill-top	-	-	At the toe of Dump-1 near Quarry 5C	Retaining wall	750 × 1.5 × 1
Hill-top fines stack yard at weigh bridge No. 6/8	-	-		Retaining wall	240 × 0.2 × 4
Entrance point of W/B 6 & 8 to first H.P. culvert of Suakatilchanda road (near W/B No. 1)	Earthen Drain	1,100 × 1.5 × 1		-	-
Sub-grade dump 4D widening and heightening)	-	-		Crated Boulder wall	149 × 1.5 × 1.0
WB 6/8 fines dump	-	-		Crated Boulder wall	90 × 2 × 1
Iehinda-Suakati road near E-Pillar	-	-		Cross wall-1	33 × 1.5 × 1
	-	-		Cross wall-2	38.5 × 1.5 × 1
	-	-		Cross wall-3	43 × 1 × 1
	-	-		Cross wall-4	63 × 1.5 × 1
	-	-		Crater Boulder wall-1	459.4 × 1.5 × 1
	-	-		Crater Boulder wall-2	22 × 3 × 1
	-	-		Crater Boulder wall-3	7.6 × 3 × 1
	-	-		Crater Boulder wall-4	44 × 3 × 1
Near WB-1	-	-		Earthen Embankment	103 × 2.5 × 2.3
	-	-		-	2 nos. (RCC Spillway)
Road side HPC No. 4 to 5	-	12.2 × 0.2 × 1.70		-	-
Road side HPC	-	11 × 0.2 ×		-	-

Ashish K. Samantroy
Ashish K. Samantroy
Qualified Person

Leo Christy A
Leo Christy A
Qualified Person



Location	Garland Drain		Location	Retaining Wall	
	Name/No.	L x W x H (m)		Name/No.	L x W x H (m)
No. 4 to 5		1.85			
WB 7/9				RCC Cross Wall-1	9.35 x 0.2 x 1.45
				RCC Cross wall-2	8.55 x 0.2 x 1.55
				RCC Cross wall-3	3.95 x 0.2 x 1.55
				RCC Cross wall-4	4.85 x 0.2 x 1.90
Near E-Pillar along Fines stock yard				Crater Boulder wall	88 x 1.5 x 2.0
Entrance of intermediate pillars 6/8 of WB-1				Cross wall across drain Total No.8	33.27 x 0.2 x 1.20

Besides the above, 6 nos. of check-dam and boulder craters have also been constructed during FY 2012-13 & 2014-15 along the Ichinda-Suakati road.

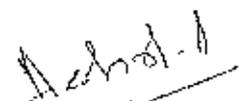
Year	Location	No. of Check Dam	Boulder Crater (Size)
2012-13	Ichinda-Suakati Road	1	10 x 5.0 x 2.0
2014-15	Ichinda-Suakati Road	5	2 x 0.2 x 1.0

Proposed Environment Protective Measures;

Table No. 64

Year	Location	Retaining Wall in Mts.		Garland Drain in Mts.		Silt settling Pond	
		Name	L x W x H	Name	L x W x D	Name	No.
2021-22	Near proposed Backfilling BF-1 on the western side of the Float quarry	R1	116 x 1.2 x 2.0	GDI	316 x 1.5 x 1.0	SP1	1
		R2	36 x 1.2 x 2.0			SP2	1
2022-23	-	-	-	-	Maintenance	-	-

The plantation program for the plan period is indicated in Plate No. 5A, 5C & 11.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



5.0 USE OF MINERAL AND MINERAL REJECT

- a) Describe briefly the requirement of end use industry specifically in terms of physical and chemical composition.

The entire ore produced from mine including lumps, the calibrated lumpy ore (+10mm/-40mm) and fines of -10mm fraction produced will be consumed in the neighboring steel and sponge iron plants of Odisha and in neighboring States. Quality parameters of iron ore lumps and fines as specified by the steel and sponge iron plants are as mentioned below;

Table No. 65

Sr. No.	Parameters		Lumpy Ore	Iron Ore Fines
A				
Chemical Composition				
i.	Fe%	Min	65%	64.5%
ii.	Al ₂ O ₃ %	Max	2.0%	2.0%
iii.	SiO ₂ %	Max	2.0%	2.0%
iv.	Total Gangue (Al ₂ O ₃ % + SiO ₂ %)		4.0%	4.0%
B				
Physical Size Fraction				
i.	Size fraction		+10/-40mm	-10mm
ii.	Over Size	Max	5%	5%
iii.	Fines	Max	5%	20%

Quality parameters of Lumps and Fines as specified by the Sponge Iron Plants are as follows;

Table No. 66

Fe%	Al ₂ O ₃ %	SiO ₂ %	P%	Moisture	LOI	Size (mm)
64-65	2.52	1.48	0.046	2.9 (max)	3 (max)	+5 to -18mm & +10 to -40mm

- b) Give brief requirement of intermediate industries involved in the up-gradation of mineral before its end-use.

Entire ore produced shall be sold to the long term buyers to utilize in their Steel Plants. Major probable long term buyers - Bhushan Steel Limited, Vandana Global Limited, Visa Steel Limited, Gimpex Industries Ltd. and Kalinga Allied Industries.

- c) Give detail requirements for other industries, captive consumption, export associated industrial use etc.

Entire ore produced shall be sold to the long-term buyers.

- d) Indicate precise physical and chemical specifications stipulated by buyers


Ashish K. Samantray
Qualified Person


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Table No. 67, Quality parameters of Lumps and Fines as specified by the buyers;

Physical and Chemical specifications / Tolerance			
Ore type		FINES	LUMPY
Fe %	Min.	60.00	62.00
Al ₂ O ₃ %	Max.	2.00	2.00
SiO ₂ %	Max.	2.00	2.00
(Al ₂ O ₃ %) + (SiO ₂ %)Max.		4.0	4.00
S %	Max.	0.05	0.05
P %	Max.	0.10	0.10
TiO ₂ %	Max.	0.25	-
Other Element		Traces	Traces
Size		- 10 mm	+ 10/-40mm
Tolerance		+/-10%	+/-10%



c) Give details of process adopted to upgrade the ROM to suit the user requirements

Entire ROM produced from the mine shall be blended at the mine site and sized to the desired range suitable for its use in the Steel Plants by crushing, screening by using mobile Crushing and Screening Plant.

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Leo Christy A
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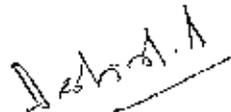
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6.0 PROCESSING OF ROM AND MINERAL REJECT

- a) If processing / beneficiation of the ore or minerals mined is planned to be conducted on site or adjacent to the extraction area, briefly describe the nature of processing / beneficiation. This should indicate size and grades of feed material and concentrate (finished marketable product) recovery etc.

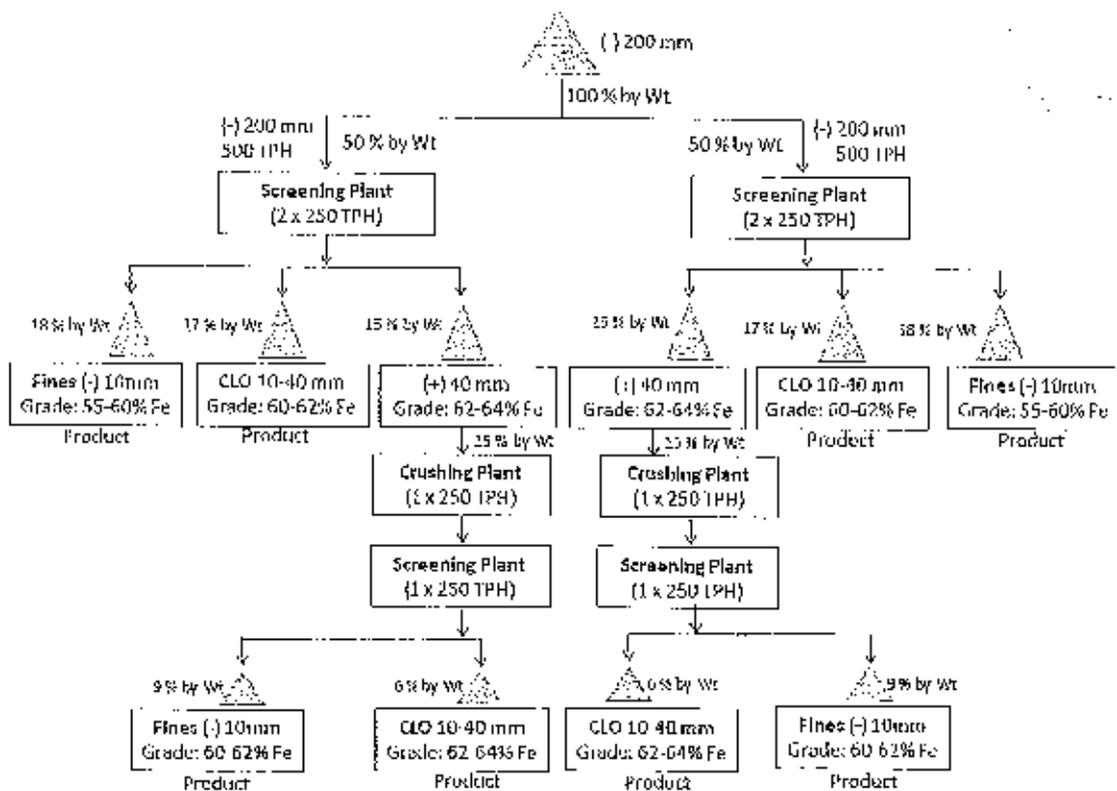
Process involved in crushing and screening is as mentioned below;

- (i) Ore having +200mm size fraction material will be directly fed to crusher by 1.5-2.0 cum capacity excavators.
- (ii) Product of crusher & -200mm fraction material will pass through double deck vibratory screen wherein - 10mm, +10-40mm and +40 will get separated.
- (iii) +40mm size fraction if any is conveyed back to the crushing plant.
- (iv) -10mm fraction will form fines product and -40mm/+10mm fraction forms CLO product.
- (v) -10mm size fraction and -40mm/+10mm size CLO will be transported to the respective stack yard, from there buyers will make their own arrangement the transport to their plants.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person

Fig. No. 1 - A detailed process involved is as depicted in the below flowchart



b) Give a Material Balance Chart with sheet or a Schematic diagram of the processing procedure indicating feed, product, recovery and its grade at each stage of the processing.

The same is given in figure no. 1 above

c) Explain the disposal method for tailings or waste from the processing plant

-Not Applicable-

d) Quantity and quality of tailings/reject proposed to be discharged, size and capacity of tailings pond, toxic effects of such tailings, if any, with process adopted to neutralize any such effect before their disposal and dealing of excess water from tailing dam.

-Not Applicable-

Ashish K. Samantray
Qualified Person

Leo Christy A
Qualified Person



e) Specific quantity and type of chemicals if any to be used in the Processing Plant.

-Not Applicable-

f) Specify quantity and type of chemicals to be stored on site/ plant

-Not Applicable-

g) Indicate quantity (cu. m. per day) of water required for mining and processing and source of supply of water, disposal of wastewater and the extent of recycling: water balance chart may be given

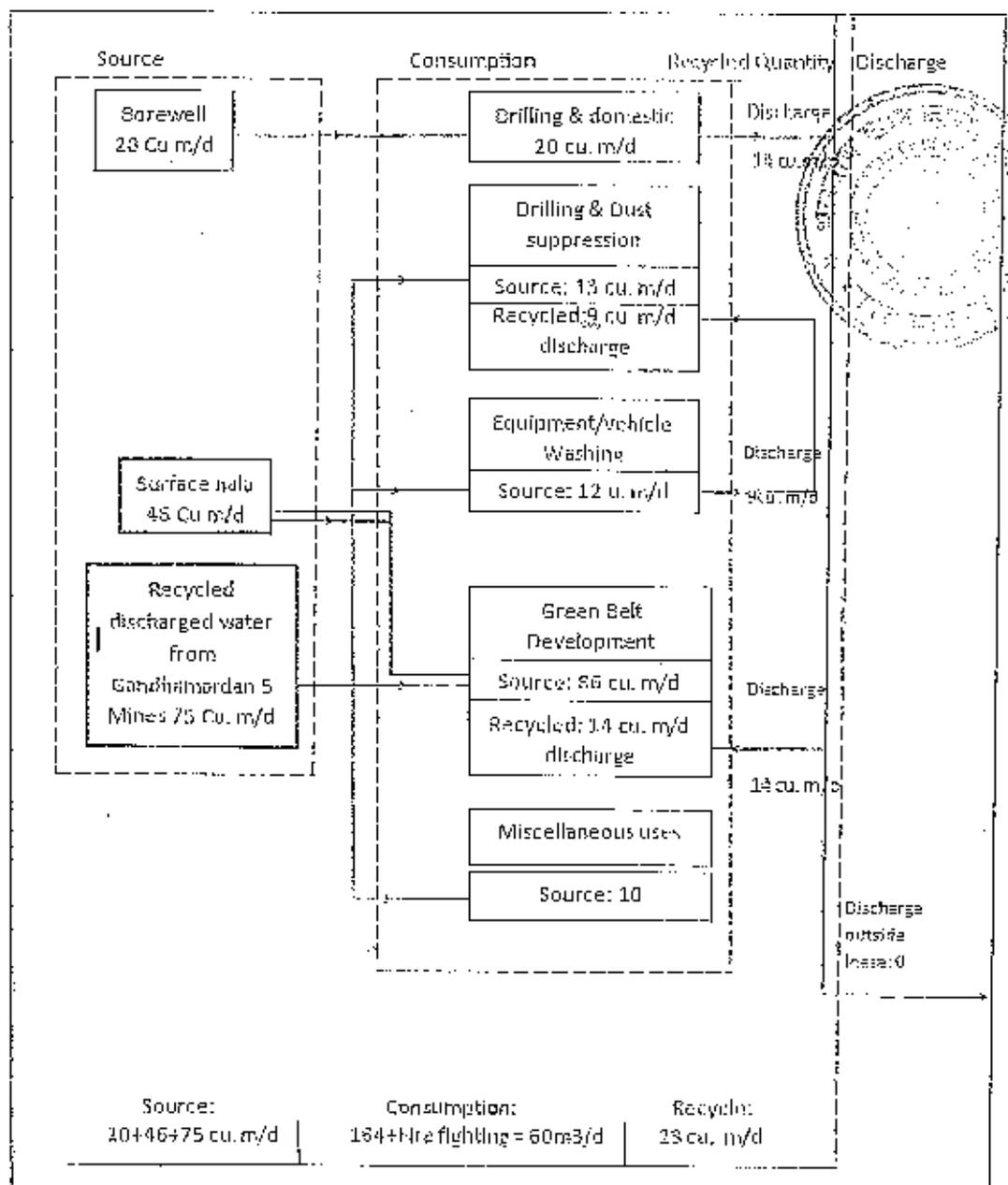
Quantity (cu. m. per day) of water required for mining;

Average water requirement for the mining and allied activities at the mines both for the domestic as well as the industrial use is $20\text{m}^3/\text{day}$ and $121\text{m}^3/\text{day}$ respectively, the peak water requirement shall be about $25\text{m}^3/\text{day}$ and $302\text{m}^3/\text{day}$ respectively for the activity as mentioned above.

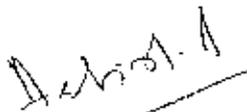
Please refer below Chart showing quantity of water requirement from the water source, consumption & extent of recycling.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



Please Note: figures in parenthesis indicates daily demand in peak season and the values are indicated only when the peak demand is different than the average demand; otherwise daily demand in peak season and average daily demand should be taken as equal.


 Ashish K. Samantray
 Qualified Person


 Leu Christy A
 Qualified Person



7. OTHERS

Describe briefly the following

a) Site services: -

Gandhamardan A Mine is equipped with all the required infrastructural facilities and it is no more a remote mining site. It is well connected to the taluka and district head-quarter, major townships of the state and also to the state capital by way of all-weather tar roads and State Highway. The distance to the Joda taluka, Keonjhar the dist. head-quarter is 28&50km respectively from the mine site. The nearest railway station Nayagarh is at a distance of about 8 Km towards east.

Mine Office covering survey, mining, geology and administration is located inside the lease area and other infrastructure exists outside the lease area.

Water Supply

The nearest water source is Suakatinala situated at a distance of 1Km from colony. However, Chandimnala which flows at a distance of 3Km and Baitarani river at 10Km distance towards west of Gandhamardan hill range area the major source of water. Tow no. of 20Hp pumps are presently caters to the water supply need to the camp.

Administrative Block

An administrative block is available with following facilities;

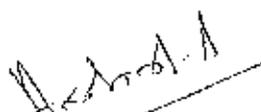
- Office for the Regional Manager, Mine's Manager, Asst. Mines Manger, Geologist, Surveyor, Labour Welfare Officer etc.
- Vocational Training Center
- Canteen
- General Office

Workshop

Mine is provided with a full-fledged workshop to undertake repairs and regular maintenance of mining machinery deployed.

Power Supply

Mine receives power supply of 11kV from 33 kV H.T. line from Keonjhar Sub-station of Grid Corporation of Odisha. During the full-fledged mine operation, additional power if any shall be drawn from the same source.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



Other Support Facilities

All the statutory facilities such as creche, canteen, first-aid center, vocational training center, etc. have been provided. To cater to the drinking water need at the different working areas, water tankers are provided. Rest-shed-cum-Lunch rooms is provided near Administrative building as per the Mines Rule-55. First-aid facilities and Wash rooms are attached to the rest shelter. Portable Blast-shed with one end open type is provided at the mine site for protection while carrying-out blasting in mine. Blast shelter is made of steel structure can be shifted as per the location of proposed blasting.

b) Employment potential:

The total work-force, the permanent and direct employment is about 707 people and generates indirect employment for several hundred.

Table No. 68

Manpower	Category	No.	
OMC Departmental Workforce	Executive	13	
	Class III	79	
	Class IV	65	
	Non-permanent employees	14	
	Contractual	10	
	Mines	Piece rated	160
		Daily rated	06
	Total	347	
On Contract	All category	360	
	TOTAL	707	

Existing Manpower:

On-roll

Table No. 69

Sl. No.	Man-power	Nos.
1	Agent	1
2	Manger (Mines)	1
3	Geologists	1
4	Asst. Manger	3
5	Engineers	2
6	Surveyor	1
7	Foreman	2
8	Mine Mate	2
9	Electrical supervisor	1
10	Short firer	1

Ashish K. Samantray
Qualified Person

Leo Christy A.
Qualified Person



8. PROGRESSIVE MINE CLOSURE PLAN UNDER RULE 23 OF MCDR, 2017

8.1 Environmental Base line information: Attach a note on the status of baseline information with regard to the following;

Existing land use pattern indicating the area already degraded due to quarrying/pitting, dumping, roads, processing plants, workshop, township etc, in a tabular form.

Environmental monitoring is carried through a accredited Consultant – CEMC Pvt. Ltd., Bhubaneswar, having Recognized Environmental Lab by MOEFCC and accredited by NABET as Environmental Consultant. Season-wise data for all 4-seasons - summer, monsoon, post-monsoon & winter are monitored, season-wise parameters from all the stations situated strategically in core and buffer Zone area are monitored as per the CPCB Guideline, Refer Environment Plan enclosed as Plate No. 12 showing the locations of monitoring stations

The present status of land use as on 30-06-2020 is as mentioned in Table below;

Table No. 70

Existing Land use Pattern		
Sl. No.	Head	(unit: in Hectares)
1	Area under mining	58.719
2	Storage for Top Soil	-
3	Waste Dump site	0.822
4	Mineral Storage	15.938
5	Infrastructure	2.634
6	Roads	12.909
7	Railways	-
8	Green Belt	12.180
9	Tailing Pond	-
10	Effluent Treatment plant	-
11	Mineral Separation plant	-
12	Township area	10.445
13	Statutory Barrier	15.908
14	Magazine with Statutory Barrier	32.979
15	Others – unutilized land, agricultural land etc.	456.042
	TOTAL	618.576


Ashish K. Samantray
Qualified Person


Leo Christy A
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Water Regime:

There is no perennial water course within the lease area. Seasonal Nalla exists within the lease area, which discharges run-off water after taking adequate protective measures. Gandhamardan hill range in the lease area has several 1st order streams which flows down the hill slope are mostly seasonal in nature. Chamdanala, a perennial water source flows towards the south-west of the lease area. The western part of Gandhamardan area is drained by Bamaninadi. However, drainage of the deposit is via ephemeral and perennial streams.

Finally, the run-off water flows into the Baitarani River, the major drainage system of the area. The nearest water source is Suakatinala situated at a distance of 1Km from the colony. However, Chamditnala which flows at a distance of 3Km and Baitarani river at 10Km distance west of Gandhamardan Hill range area the major sources of water.

Quality of Air:

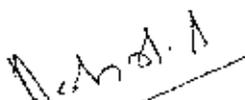
Mining activity contributes to the pollution of air due to operation of heavy earth moving equipment and transportation. It is necessary to know the level of the pollutants which exist in the atmosphere. Mining lease area is considered as core zone and the area falling within 10km radius forms buffer zone. The quality of air within the core and buffer zone is estimated by collecting air samples. For the AAQ monitoring, locations of monitoring station are selected on the basis of wind direction and the monitoring is done simultaneously. The wind direction and the meteorological conditions are considered and correlated during the monitoring. The stations monitored for ambient air quality and for source monitoring are furnished below:

Location of Ambient Air Quality Monitoring Stations:

Table No: 71

Station Code	Village	Buffer Zone	
		Coordinates	
		Latitude	Longitude
A-1	SuakatiSchool	21°36'33.09''N	85°31'12.06''E
A-2	GuestHouse	21°36'33.02''N	85°30'32.03''E
A-3	OMCMedical	21°36'16.00''N	85°30'31.09''E
A-4	SuakatiCollege	21°36'08.00''N	85°30'18.07''E
A-5	MaintenanceArea	21°36'29.09''N	85°29'28.03''E
A-6	DauraVillage	21°36'19.08''N	85°29'24.02''E

The parameters monitored for ambient air quality monitoring are Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂), PM₁₀, PM_{2.5}, Ammonia (NH₃), Benzene (C₆H₆), Lead (Pb), Nickel (Ni), Arsenic (As), Benzo(a)Pyrene (BaP), Carbon Monoxide (CO) and Ozone (O₃) as per NAAQS.


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Table No. 72

Monitored parameters & duration	Method used
24 hourly monitoring twice a week for 4 weeks per month for one season of 3 months	
PM ₁₀ PM _{2.5}	Gravimetric Sampling using Respirable Dust Sampler
Sulphur Dioxide (SO ₂)	Improved West & Gaeke Method
Nitrogen Dioxide (NO ₂)	Jacob & Hochhiesher (NaOH-NaAsO ₂) Method
Lead	AAS /ICP Method after sampling on HPM 2000 or equivalent filter Paper
Ammonia	Independent blue method
Benzene	Adsorption & desorption followed by GC analysis
Nickel	AAS /ICP Method after sampling on HPM 2000 or equivalent filter Paper
Arsenic	AAS /ICP Method after sampling on HPM 2000 or equivalent filter Paper
Benzo-a-pyrene	Solvent extraction followed by HPLC/GC analysis
Hourly Monitoring: twice a week for 4 weeks per month for one season of 3 months	
CO	Non dispersive Infrared (NDIR) Spectroscopy
Ozone	UV Photometric/Chemical method

Summary of AAQ monitoring data for various parameters of Summer 2020 monitoring report for the stations mentioned above is enclosed under **Annexure No. 30**.

Ambient Noise Level:

Noise is defined as any sound that can produce undesired physiological and psychological effects in an individual.

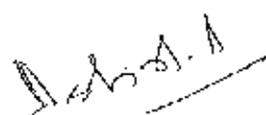
As per the guideline, noise levels within the core zone near sources and in buffer zone have been recorded.

The sources of Noise within the Mine are;

- Working of heavy earth moving machinery
- Plying of ore & waste carrying tipper trucks
- Due to the controller blasting activity which is restricted 2-3 times a week.

In the buffer zone, noise produced is due to the plying of vehicles.

Monitoring is carried at the following stations hourly monitoring of noise level (Leq₅) are recorded for 24 hours by using sound level meter for span of 15 minutes during each hour. Locations of noise monitoring stations are given in Key Plan and Environment Plan enclosed as **Plate No. 1 & 12**.


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Table No. 73 -List of Noise Monitoring Stations

Station Code	Location/Village	Coordinates	
		Latitude	Longitude
N-1	SuakatiSchool	21°36'33.09" N	85°31'12.06" E
N-2	GuestHouse	21°36'33.02" N	85°30'32.03" E
N-3	OMCMedical	21°36'16.00" N	85°30'31.09" E
N-4	SuakatiCollege	21°36'08.00" N	85°30'18.07" E
N-5	Loading point	21°37'11.6" N	85°30'40.0" E
N-6	Weigh Bridge No. 6	21°37'06.6" N	85°30'41.6" E

The noise monitoring results are compared with the Ambient Noise Quality Standard notified under Environment (Protection) Act, 1986, and shall be observed whether the results are within the limits.

Table No. 74 - Noise Quality Standards

NAAQS	Leq. Limit dB(A)	
	Day	Night
Industrial areas	75	70
Residential area	55	45

The measurement is recorded in the area near different sources and in the villages. The results of noise monitoring for summer 2020 is enclosed as **Annexure No. 30**.

Flora:

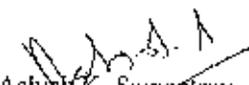
Area has large variety of trees; the major species include Sal (*Shorea robusta*), Palash (*Butea frondosa*), Kusum (*Sehelaicheratijug*), Kadamba (*Anthocephalus cadamba*), Seesum (*Delbergialatifolia*), and Bija (*Pterocarpus marsupium*). In addition, fruit bearing trees like Jackfruit (*Artocarpus lakucha*), Mango (*Mangiferaindica*), Guava (*Psidium guava*), Jamun (*Syzygiumcumini*), etc are also found.

Aquatic Fauna

The area contains numerous small and large species of fish, the principal one among them is Rohu.

Climatic Conditions:

The lease area lies in tropical region where the climate is characterized by very hot summer season and cool winter. Summer season is from March to June wherein the monthly average temperature ranges from a maximum of 42°C during day time to a minimum of 15°C at


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Qualified Person


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night. Winter is from November to February when the maximum temperature during day raises up to 37°C and the minimum temperature at night comes to as low as 6°C.

Monitoring details during Summer -2020 are given below:

Temperature:

Temperature °C		Mar 2020	Apr 2020	May 2020
	Maximum	35.03	40.45	37.03
	Minimum	13.65	17.02	18.39
	Average	23.12	27.52	27.35

Relative Humidity:

Relative Humidity		Mar 2020	Apr 2020	May 2020
	Maximum	99.71	97.58	99.95
	Minimum	27.20	10.32	30.78
	Average	74.59	52.79	78.16

Wind Speed:

Wind Speed (m/s)		Mar 2020	Apr 2020	May 2020
	Maximum	9.8	9.4	16.8
	Average	1.78	2.27	2.93

The average annual rainfall as recorded at IMD observatory at Keonjhar is 1,269mm, the south-west monsoon lasts from mid-June to mid-September and the area gets more than 80% of the annual rainfall during this period.

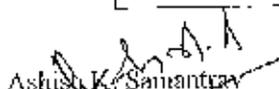
Human Settlements:

Human settlement exists around the mining area in all, there are 7 villages situated within the 5Km buffer zone. The total population of the buffer zone is 10,019 as per 2011 census data. Besides farming, which forms the major avocation of the people, villagers are engaged in mining, and transportation activity.

Details of the population of the villages in the buffer zone:

Table No. 75

Village	Population
Umunda	1,860
Kumundi	1,239
Uparkagar	1,088
Daura	2,130
Suakati	2,648
Kainsari	347
Tehinda	707


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Refer Key Plan enclosed as **Plate No. 1**- Shows the disposition of Villages and details of population break-up within the 7 villages spread over core and buffer zone.

Public Buildings, Places of worship and Monuments:

There is no place of archeological monuments or places of worship or monuments within the lease area as well within 5Km buffer zone area.

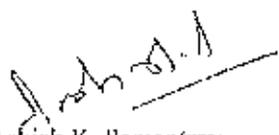
Indicate any Sanctuary is located within vicinity of leasehold:

No Sanctuaries located within the 5Km buffer zone to the lease area.

8.2 IMPACT ASSESSMENT- Attach an environmental impact assessment statement describing the impact of Mining and Beneficiation on environment on following:

i) Land area-indicating area likely to be degraded due to quarrying, dumping, roads, workshop, processing plant, township etc.

Lease area put to use for various mining activities as on 30.06.2020 is mentioned in below Table, at the end of ensuing plan period till 2022-23 and till conceptual period. To minimize the area to be degraded, During the proposed modified mining plan for the enhancement of production capacity of the mine, entire waste generated during the period 2020-21 to 2022-23, shall be utilized for pit reclamation by sequential backfilling and same will be rehabilitated with plantation. Reclamation of the pit area by backfilling will continue during the next block of plan period till the end of lease period. Area presently covered under mineral storage will also reduce at the end of lease period, the mineral storage area will be a temporary and dynamic activity, as entire Mineral reject produced from the mine shall be blended with the higher grade ore and sold to the buyers.


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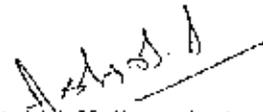
Table No. 76

Land use Pattern till conceptual period			
Type of activity	Present Land-use	At the end of Plan period 2022-23	(unit in Hectares)
			Conceptual Land-use
Area under mining	58.719	73.149	138.432
Storage for Top Soil	-	-	-
Waste Dump site	0.822	0.552	0.552
Mineral Storage	15.938	15.938	-
Infrastructure	2.634	2.634	2.634
Roads	12.909	21.069	15.073
Railways	-	-	-
Green Belt	12.180	12.180	210.006
Tailing Pond	-	-	-
Effluent Treatment plant	-	-	-
Mineral Separation plant	-	-	-
Township area	10.445	10.445	10.445
Statutory Barrier	15.908	15.908	15.908
Magazine with Statutory Barrier	32.979	32.979	32.979
Others – unutilized land, agricultural land etc.	456.042	433.722	192.547
Total	618.576	618.576	618.576

ii) Air Quality:

To mitigate the impact on quality of air due to the mining and allied activities, various measures are taken like;

- Water sprinkling on working areas, haul roads, at the ore loading site.
- No overloading of tippers/dumpers.
- Tippers carrying ore from stack yard to out of the mine are covered with tarpaulin.
- Motor grader is used maintain the haul road, at the mine exit.
- Water spraying at the feed-hopper of the crushing plant.
- Provision of dust masks to the persons exposed to dust.


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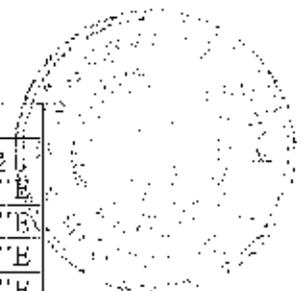

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Location of Ambient Air Quality Monitoring Stations:

Table No: 63

Station Code	Village	Coordinates	
		Latitude	Longitude
A-1	Suakati School	21°36'33.09" N	85°31'12.06" E
A-2	Guest House	21°36'33.02" N	85°30'32.03" E
A-3	OMC Medical	21°36'16.00" N	85°30'31.09" E
A-4	Suakati College	21°36'08.00" N	85°30'18.07" E
A-5	Maintenance Area	21°36'29.09" N	85°29'28.03" E
A-6	Daura Village	21°36'19.08" N	85°29'24.02" E



Summary of ambient air quality for Summer-2020 and monitoring report are enclosed as Annexure No. 30.

iii) Water Quality:

The general ground water table in the lease area is around 643mRL, with the proposed working levels for the enhancement of production during the ensuing plan period and till the end of lease period will not intercept groundwater table.

During monsoon, there is possibility of transportation of silt and sediments into nearby surface water bodies. During mining operation, part of dust generated by the vehicular movement, the erosions caused by different operations and the solids in the effluent water flowing down from the non-toxic waste dumps reaching the natural drainage carries suspended solid matter and water becomes turbid and causes siltation of the nallah. However, the effective protective measures in-place at the critical locations and proposed engineering protective measures like check-bunds, silt settling ponds, hence, effect on nearby nallah and fields is not significant.


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including Progressive Mine Closure Plan from
2021-22 to 2022-23

List of existing protective measures:

Table No. 77

Location	Garland Drain		Location	Retaining Wall	
	Name/No.	L x W x H (m)		Name/No.	L x W x H (m)
10-40 and fines ore of Hill-top	Garland Drain	410 x 1 x 1	-	Compound wall the stack yard	750 x 0.25 x 1.83
Hill-top quarry of dumping area and sub-grade dump of Hill-top	-	-	At the top of Dump-1 near Quarry 5C	Retaining wall	750 x 1.5 x 1
Hill-top fines stack yard at weigh bridge No. 6/8	-	-	-	Retaining wall	240 x 0.2 x 4
Entrance point of W/B 6 & 8 to first H.P. culvert of Suakatilecharula road (near W/B No. 1)	Earthen Drain	1,100 x 1.5 x 1	-	-	-
Sub-grade dump 4D widening and heightening)	-	-	-	Crated Boulder wall	149 x 1.5 x 1.0
WB 6/8 fines dump	-	-	-	Crated Boulder wall	90 x 2 x 1
Ichinda-Suakati road near E-Pillar	-	-	-	Cross wall-1	33 x 1.5 x 1
	-	-	-	Cross wall-2	38.5 x 1.5 x 1
	-	-	-	Cross wall-3	43 x 1 x 1
	-	-	-	Cross wall-4	63 x 1.5 x 1
-	-	-	Crater Boulder wall-1	459.4 x 1.5 x 1	
-	-	-	Crater Boulder wall-2	22 x 3 x 1	
-	-	-	Crater Boulder wall-3	7.6 x 3 x 1	
-	-	-	Crater Boulder wall-4	44 x 3 x 1	
-	-	-	Earthen Embankment	103 x 2.5 x 2.3	
Near WB-1	-	-	-	-	2 nos. (RCC Spillway)
Road side HPC No. 4 to 5	-	12.2 x 0.2 x 1.70	-	-	-
Road side HPC No. 4 to 5	-	11 x 0.2 x 1.85	-	-	-
WB 7/9	-	-	-	RCC Cross Wall-1	9.35 x 0.2 x 1.45
	-	-	-	RCC Cross wall-	8.55 x 0.2 x 1.55

Ashish K. Samantroy
Qualified Person

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Table No. 80 – Summary of Noise Monitoring Data observed during Summer-2020.

Station	Location	Date of Survey	Results (dB(A))						
			Day (0600-2200hr)			Night (2200-0600hr)			
			Max	Min	Avg [#]	Max	Min	Avg [#]	
Suakati School	NL1	18.03.2020	54.1	33.5	46.8	32.7	BDL	30.6	
		15.04.2020	52.1	30.7	44.9	30.7	BDL	30.1	
		13.05.2020	58.2	32.2	51.4	30.9	BDL	30.4	
Guest House	NL2	19.03.2020	51.4	30.5	44.5	31.9	BDL	30.3	
		16.04.2020	48.4	31.4	52	32.5	BDL	30.5	
		14.05.2020	55.8	30.1	48.1	31.6	BDL	30.4	
OMC Medical	NL3	20.03.2020	49.9	30.2	42.2	30.9	BDL	30.1	
		17.04.2020	53.9	32.5	46.6	31.6	BDL	30.3	
		15.05.2020	57.4	30.1	49	32.7	BDL	30.6	
Suakati College	NL4	21.03.2020	50.7	32.4	43.6	32.4	BDL	30.5	
		18.04.2020	49.2	30.5	42.7	30.9	BDL	30.1	
		16.05.2020	59.1	32.2	52.8	31.8	BDL	30.5	
Permissible Limit as per ILO Code of Practice For unprotected ear – 8hrs working shift			Permissible Limits of Ambient Noise Level as per CPCB Guidelines i.e. Limit dB(A)						
Warning Limit		Danger Limit		Industrial Area		75 (Day)		70 (night)	
85 dB(A)		90dB(A)		Commercial Area		65 (Day)		55(night)	

For the locations of all stations monitored Please Refer Plate No 12.

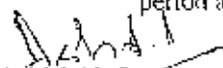
v) Vibration Levels (due to blasting)

With the controlled blasting techniques adopted to excavate the major quantity of enhanced production from the mine, each blast hole is divided into two decks and the same is initiated at different delay intervals. Hence, the charge per delay is restricted to a charge per deck, which reduces ground vibration and noise and will be much below the permissible limit and same is measured by seismogram. Firing is done from a blaster's shelter with the blasting cable and exploder. Also use of in-hole delay by NONEL means of initiation. Blasting frequency is restricted to maximum of 2-3 times in a week.

It is proposed to undertake Blasting-Ground vibration monitoring studies by an expert agency to determine the maximum charge per delay to restrict the ground vibration level within the permissible limits.

vi) Water Regime

The general ground water table in the lease area is around 643mRL, with the proposed working levels for the enhancement of production during the ensuing plan period and till the end of lease period will not intercept groundwater table.


Ashish K. Samantray
Qualified Person


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Qualified Person



vii) Acid Mine Drainage:

Overburden and side burden consists of laterite, lateritic clay, shale, and Banded Hemalite Jasper. It does not contain any leachable heavy metals or toxic elements and there shall be no acid mine drainage. Further no ore beneficiation is involved at mine site which generates tailings. Therefore, there shall be no impact on drainage water except the presence of suspended solids if any which is being taken care through the adequate engineering protective measures in place and proposed.

viii) Surface Subsidence:

Pit and bench slopes are designed and maintained as per the lithology/geotechnical property of the formations exposed/encountered, we don't foresee any surface subsidence due to the mining operation.

ix) Socio-economics

There is no project affected persons within the lease area. However, we are carrying out Socio welfare activities and also proposed measures to mitigate the socio economic impact.

Employment opportunity due to the project - Gandhamardan A, has greatly increased the economic level of the natives. In addition, creation of comparatively well-paid job in the vicinity has generated not only the sizeable trade in household supplies but also the employment opportunities. Mining has also generated demand for tertiary services like transport and garages. There is a positive impact of mining on the socio-economics. Infrastructure facilities like road, public transport and electricity supply has shown a positive improvement in the region.

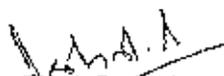
x) Historical Monuments etc.

There are no historical monuments or buildings situated within the lease area or in the 10Km buffer zone to the lease area.

8.3 Progressive Reclamation Plan:

To mitigate the impacts and ameliorate the condition, describe year wise steps proposed for phased restoration, reclamation of lands already/to be degraded in respect of following items separately for 5 years period.

8.3.1 Mined-Out land: Describe the proposals to be implemented for reclamation and rehabilitation of mined-out land including the manner in which the actual site of the pit will be restored for future use. The proposals may be supported with yearly


Ashish K. Samanturay
Qualified Person


Leo Christy A
Qualified Person



plans and sections depicting yearly progress in the activities for land restoration/reclamation/rehabilitation, afforestation etc, called "Reclamation Plan".

Land restoration and reclamation is very essential in any mining industry. Proper measures adopted during restoration will control most of the adverse environmental impacts of mining and also improve the aesthetic beauty of the area. Due to the mining activity there will be change in the ground profile as it requires formation of mining-pits and stacking of ore etc.

As the proposals are made up to the end of lease period, during ensuing plan period 3.14 million tons of waste rock shall be generated, entire generated waste is proposed for the sequential backfilling in the demineralized portion of the pit. Pit reclamation by sequential backfilling will continue during the next block of 5-year plan period from 2023-24 till end of lease period, entire waste generated from the mine shall be utilized for backfilling in the demineralized portion of the pit.

i) Name of the Quarry: Float quarry

Table No. 81

Area unit: in Hectares

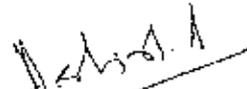
Year	Mined-out Land at the beginning of the year	Additional area mined-out during the year	Total mined-out area at the end of the year	Area to be reclaimed	Remaining area at the end of the year	Method of reclamation
2021-22	9.27	4.77	14.04	-	14.64	Backfilling
2022-23	14.64	-nil-	14.04	3.86	10.18	Backfilling

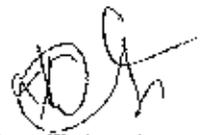
ii) Name of the Quarry: Flank quarry

Table No. 82

Area unit: in Hectares

Year	Mined-out Land at the beginning of the year	Additional area mined-out during the year	Total mined-out area at the end of the year	Area to be reclaimed	Remaining area at the end of the year	Method of reclamation
2021-22	-nil-	-nil-	-nil-	-nil-		
2022-23	-nil-	-nil-	-nil-	-nil-		


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iii) Name of the Quarry: Hill-top deposit

Table No. 83

Year	Mined-out Land at the beginning of the year	Additional area mined-out during the year	Total mined-out area at the end of the year	Area to be reclaimed	Remaining area at the end of the year	Method of reclamation
2021-22	-nil-	-nil-	-nil-	-nil-		
2022-23	-nil-	-nil-	-nil-	-nil-		

Please refer Reclamation and Conceptual Plan enclosed as Plate No. 13 & 13 for the sequence and location of pit reclamation.

- a) Program of afforestation, year-wise for the initial five years (and upto conceptual plan period for 'A' category mines indicating number of plants with name of species to be afforested under different areas in hectares.

Plantation Program for ensuing plan period

Table No. 84

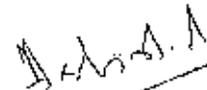
Year	Plantation in Ha	No. of saplings	Type of saplings
2021-2022	3.59	7,180	<i>As per statutes, re-grassing and plantation of local species will be planted.</i>
2022-2023	1.95	3,900	
Total	5.54	11,220	

8.3.2 Top Soil Management: The Top soil available at the site and its utilization may be described.

During the ensuing modified mining plan period for the enhancement of production, about 0.02 million cum of top soil is anticipated, same shall be stacked temporarily and utilized for plantation and for landscaping purpose.

8.3.3 Tailing Dam Management: The Steps to be taken for protection and stability of tailing dam, stabilization of tailing material and its utilization, periodic desiltation measures to prevent water pollution from tailings etc, arrangement for surplus water overflow along with the detail design, structural stability studies, embankment seepage loss into the receiving environment and groundwater contamination if any may be described.

No tailing generation at the mine as the entire ore produced will be taken up for crushing and screening to produce CLO and ore fines as desired by the long-term buyers.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person



8.3.4 Acid Mine Drainage if any and its Mitigative Measures:

Overburden and side burden consists of laterite, lateritic clay, shale, and Banded Hematite Jasper. It does not contain any leachable heavy metals or toxic elements and there shall be no acid mine drainage. Further no ore beneficiation is involved at mine site which generates tailings. Therefore, there shall be no impact on drainage water except the presence of suspended solids if any which is being taken care through the adequate engineering protective measures in place and proposed.

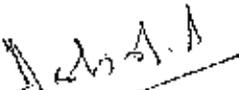
8.3.5 Surface subsidence mitigation measures through backfilling of mine voids or by any other means and its monitoring mechanism.

The information on protective measures for year-wise reclamation and rehabilitation works may be provided as per the following table;

By considering the geo-technical properties of formation encountered/exposed in the mine, though 40% of production/development is proposed through drilling and blasting we don't foresee any surface subsidence.

Before the on-set of monsoon, all along the toe of the bench contour trenches will be made to divert water to the mine pit.

Also, as mentioned, entire waste generated during the ensuing plan period and in the subsequent block, till the conceptual period, entire waste generated from the mine will be backfilled in the demineralized portion of the pit.


Ashish K. Samantray
Qualified Person


Leo Christy A
Qualified Person

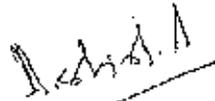


Year-wise Reclamation and Rehabilitation works proposed during the Plan period:

SUMMARY OF YEAR-WISE PROPOSAL FOR ITEM NO. 8.3

Table No. 85

Items	Details	Year-wise Proposal	
		2021-22	2022-23
Dump Management	Area to be afforested (ha)	Nil	Nil
	No. of saplings to be planted	Nil	Nil
	Cost including watch & care during the year	Nil	Nil
Management of worked out benches	Area available for rehabilitation (ha)	Nil	Nil
	No. of saplings planted in the year	Nil	Nil
	Any other method of rehabilitation	Nil	Nil
	Cost including watch & care during the year	Nil	Nil
Reclamation & Rehabilitation by backfilling	Void available for backfilling (L x B x D) pit wise in mts.	230x130x18.5	250x150x9
	Void filled by waste in M ³	5,51,737	3,27,435
	Afforestation on the backfilled area (Ha.) No. of saplings	Nil	1.95 / 3,900
	Rehabilitation by making water reservoir	Nil	Nil
	Any other means (specify)	-	-
	Area available (ha)	3.59	Nil
Rehabilitation of waste land within lease	Area rehabilitated	3.59	Nil
	Method of rehabilitation/no. of saplings	Plantation/ 7,180	Nil
	Others (specify)	Nil	Nil


Ashish K. Samantray
Qualified Person


Jacob Christy A
Qualified Person



8.4 Disaster Management and Risk Assessment:

High-risk accidents like land subsidence, floods, fire or seismic activity are not anticipated at the Gandhamardan Block-A Iron Ore Mine. These have not occurred since the inception of mining activity. While designing the mining pit, slope stability is given prime importance to avoid any possible slope failure. Overall pit slope is around 39° towards the footwall hanging-wall side.

Management with sufficient provision of finance will avert any financial risk as well as sufficient number of technical skilled manpower in the event of necessity to overcome any technical risk.

We do not foresee any temporary discontinuation to occur in the Mining operation. In the event of such a situation authorized and responsible persons will be available for care, maintenance and monitoring operations. The persons concerned are authorized Agent and Mines Manager appointed as required under statute.

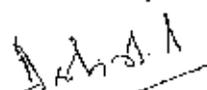
In case of any emergency, following Authorities and persons will assist in the Disaster Management.

Table No. 86

Company Representative	Designation	Address	Contact No.
Shri.A.P.Rout	Manager – Mines	-do-	+91 9437157958
Shri Niranjana Panda	Surveyor	-do-	+91 9937678280
Police Station		Sadar Police Station, Raisuan P.O., Keonjhar, Odisha	06766-254106 (O)/9438916590 (CUG)
Fire Station		Fire station, Keonjhar Dist., Keonjhar, Odisha	06766- 255501/101
Hospital		Keonjhar District Hospital, 439, Chetan Nagar, Keonjhar Dist. Odisha	06766-22777000

For the Emergency preparedness and Disaster Management Plan during mine various activities, please refer enclosed Annexure Nu. 28.

8.5 Care and maintenance during temporary discontinuance: An emergency plan for the situation of temporary discontinuance due to court order or due to statutory requirements or any other un foreseen circumstances may indicate measures of care, maintenance and monitoring of status of discontinued mining operations expected to re-open in near future.


Ashish K. Samantray
Qualified Person

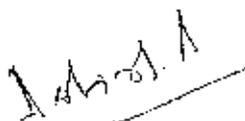

Leo Christy A
Qualified Person



We do not foresee any temporary discontinuation to occur at Gandhamardan Block-A Mine. In the event of such a situation authorized and responsible person will be available for care, maintenance and monitoring of operations. The person concerned is the Mines Manager of the mine. Mines Foreman and officers including mines manager make a regular round to the mine, before the onset of monsoon, all the necessary arrangement are made to take care of wash-off from the surface dumps and mine benches. All the heavy earth moving machineries are maintained at regular interval.

8.6 Financial Assurance: The financial assurance can be submitted in different forms as stated in rule 27(1) of Mineral Conservation and Development Rules 2017. In the mine closure plan, the manner in which financial assurance has been submitted and its particulars have to be indicated.

Financial assurance calculation as per Rule 27(1) of MCDR 2017 is given in the table below:


Ashish K. Samantroy
Qualified Person


Leo Christy A
Qualified Person



Table No. 87

Gandhamardan Block-A Iron Ore Mine

Table shows present Land Use pattern, item-wise area reclaimed/ rehabilitated/ restored and area put to use during Modified Mining Plan chargeable for Financial Assurance

Unit: Area in Hectare

Sr. No.	Present Land Use Pattern Head	Area put on use at start of plan period as on 30.06.2020	Additional requirement during Plan period upto 31.03.2023	Total Area C=(A+B)	Area considered as fully reclaimed / rehabilitated D	Net area considered for calculation E=(C-D)
1	Area under mining	58.719	14.430	73.149	-	73.149
2	Storage for Top Soil	-	-	-	-	-
3	Waste Dump site	0.822	-0.270	0.552	-	0.552
4	Mineral Storage	15.938	-	15.938	अनुमोदित	15.938
5	Infrastructure	2.634	-	2.634	APPROVED	2.634
6	Roads	12.909	8.160	21.069	-	21.069
7	Railways	-	-	-	-	-
8	Green Belt	12.180	-	12.180	-	12.180
9	Tailing Pond	-	-	-	-	-
10	Effluent Treatment plant	-	-	-	REGIONAL CONTROLLER OF MINES	-
11	Mineral Separation plant	-	-	-	NON BUREAU OF MINES	-
12	Township area	10.445	-	10.445	-	10.445
	Total	113.647	22.320	135.967		135.967

Total Financial Assurance payable till the end of ensuing plan period i.e. 31.03.2023 will be 40,790,100/- (Rs. Four Crores seven lakhs, Ninety thousand one hundred only) at 3,00,000/- per hectare as per the Category-A fully mechanized mines for an area of 135.967 hectares.

We have paid financial assurance in the form of bank guarantee amounting to ₹38,572,800/- (Rs. Three Crores eighty-five lakhs, seventy-two thousand eight hundred only) by Bank Guarantee No 122GT01180080001 through HDFC Bank valid till 31-03-2023. The difference amount is paid in the form of Bank Guarantee amounting to ₹ 22,17,300/- by Bank Guarantee No. 0004120BC0000143 through State Bank of India valid till 31-03-2023, please refer copy of Guarantee enclosed as Annexure No. 29. Financial Assurance Plan is enclosed as Plate No. 15.

Ashish K. Samantray
Qualified Person

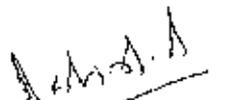
Leo Christy A
Qualified Person



Gandhamardan - A Iron Ore Mine
Odisha Mining Corporation Ltd

Modification of Review of Mining Plan
Including Progressive Mine Closure Plan from
2021-22 to 2022-23

Certificate: The above-mentioned actions have been taken to be stated clearly in the mine closure plan. A certificate duly signed by lessee to the effect that, said closure plan complies all statutory rules, regulations, orders made by the central or state govt., statutory organizations, court etc. have been taken into consideration and whenever any specific permission is required the lessee will approach the concerned authorities. The lessee should also give an undertaking to the effect that all the measures proposed in this closure plan will be implemented in a time bound manner as proposed.


Ashish K. Samantray
Qualified Person


Len Christy A
Qualified Person

GOVERNMENT OF ODISHA
FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT

NOTIFICATION

No. FE-DIV-FLD-0070-2021- 22741 / FE&CC Date 23.12.21
10F (Cons) 50/2018

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-**Khamarpadar** under Thuamul Rampur Tahasil in the District of Kalahandi mutated and transferred in favour of Forest, Environment & Climate Change Department for raising Compensatory Afforestation purpose thereon against proposed diversion of balance forest land of 401.7824 ha including 7.2807 ha of safety zone out of total forest land of 519.7472 ha within total mining lease area of 618.576 ha for Iron Ore Mining in Gandhamardan (Block-A) mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. vide letter F. No.8-27/2016-FC dtd.05.04.2019 of Government of India, Ministry of Environment, Forests & Climate Change (FC Division) under Section 2 of the Forest (Conservation) Act, 1980, the limits of which are specified below and the area of which is 329.811 ha (814.98 acres), shall be Protected Forest with effect from the date of issue of the Notification and shall be known as "**Khamarpadar Protected Forest-A**".

Forest Block:

Name of the Protected Forest	:	Khamarpadar Protected Forest-A
Area in Ha	:	329.811 ha
Area in Acres	:	814.98 acres
Name of the Village	:	Khamarpadar
Name of the Police Station	:	Thuamul Rampur
Name of the Tahasil	:	Thuamul Rampur
Name of the Sub-Division	:	Bhawanipatna
Name of the District	:	Kalahandi

Land Schedule:

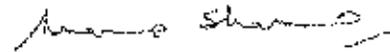
Village	Khata No.	Plot No.	Kissam	Total area in Ac.	Boundary description			
					North	South	East	West
Khamarpadar	242/1	1033/1641	Dangar	19.15	Part plot of 1033	999/1640, 998/1639	Part plot of 1033	1000 & Part Plot of 1033
		1036/1642		9.89	1037 & Part plot of 1036	1033/1641	Part plot of 1036	Part plot of 1033
		1070/1643		16.00	724, 772	1041, 1042 & Part plot of 1070	1077, 1078/1644 & Part plot of 1070	1043, 1064, 1066, 1067, 1069 & Part plot of 1070
		1267/1645		9.47	1263 (Nala), 1268 & Part plot of 1267	1324/1647	1263(Nala)	1270/1646
		1270/1646		6.54	1269, 1271, 1272, 1294 & Part plot of 1270	1324/1647	1267/1645	132, 1322, 1644

		1324/1647	10.85	1267 /1645, 1270/1646	1327/1648	1325 & Part plot of 1324	1644, 1328 & Part plot of 1324
		1327/1648	28.21	1324/1647	1537	1326(Nala) & Part plot of 1327	1344, 1346, 1347, 1348, 1350 & Part plot of 1327
		1397/1649	4.16	992	1336 & part plot of 1397	1389 & 1395	991
		1398/1650	2.15	991	1401, 1402, 1652 & Part plot of 1398	Part plot of 1397	1403/1651
		1403/1651	11.25	989	1411	1412, 1400, 1402 & Part plot of 1403	1404
		1404	60.00	977, 998/1639 & Part plot of 977	1408, 1411	1403/1651, 1411	1405
		1405	50.00	976 & Part plot of 977	1407	1404	1406
		1406	44.55	975, 976	1407	1405	Udaygiri RF
		1407	70.63	1405, 1406	1457/1657, 1456	1408, 1409/1652	Udaygiri RF
		1408	37.50	1404	1409/1652	1411	1407
		1409/1652	27.03	1408	1436, 1455, 1456 & Part plot of 1409	1410/1653	1407
		1410/1653	16.13	1411	Part plot of 1410	1414, 1417, 1424 & Part plot of 1410	1409/1657
		1411	27.78	1403/1651	1410/1653	1413/1654	1408
		1413/1654	3.60	1412	1410/1653	1412, 1414 & Part plot of 1413	1411
		1437/1655	2.53	1438 & Part plot of 1437	1460/1658	1435 & Part plot of 1437	1449/1656
		1449/1656	2.40	1448 & Part plot of 1449	1460/1658	1437/1655	1450 & Part plot of 1449
		1457/1657	29.40	1407	Hadsil	1456, 1458, 1459, 1460/1658 & Part plot of 1457	Hadsil

		1460/1658	32.35	1437/1655, 1449/ 1656, 1450, 1459, 1462 & Part plot of 1460	Hadsil	1464/1659	1457/1657
		1464/1659	19.05	1467	Hadsil & Kardapas	1575	1460/1658 & Part plot of 1464
		1484/1660	3.00	1567, 1483	1575	Part plot of 1484	1474 ,1475 & Part plot of 1484
		1553/1661	11.33	1554/1662	1584/1664 & Part plot of 1584	Part plot of 1553 & Mundighati	1569, 1571, 1581 & Part plot of 1553
		1554/1662	17.25	1556	1553/1661	1550, 1555 & 1556	1560,1569 & Part plot of 1554
		881/ 1634	9.90	877, 878	991	993/1638, 996	880, 882, 887 & Part plot of 881
		977	23.53	968, 978, 982/1 635	1404	983, 998/1639 & Part plot of 998	Part plot of 977
		978	20.00	922	977	914 & 982/1635	968
		982/ 1635	4.65	914 & 909	977	979, 980, 981,991 & part plot of 982	978
		989/ 1636	24.37	977, 990/1637 & Part plot of 989	1403/1651 , 1404	991	977
		990/ 1637	3.84	888 & Part plot of 881	989/1636	991	1953, 986 & Part plot of 990
		991	25.00	881/1634	1398/1650	993/1638, 992, 1397/1649	990/1637, 989/1636
		992	8.68	993/1638	1397/1649	1384, 1385, 1388 & 1389	991
		993/ 1638	31.81	998/1639 & part plot of 993	992	1286 & Part plot of 993	881/1634
		998/ 1639	27.39	1033/1641	993/1638	Part plot of 998	999/1640, 877 & Part plot of 998

		999/ 1640		9.95	1033/1641	998/1639	998/1639	818, 877 & Part of 999
		1575		18.08	1467, 1471, 1472, 1473 & 1484/1660	Kardapas	1573, 1574 & 1576/1663	1464/1659
		1576/1663		9.43	1575, 1577 & Part plot of 1576	Kardapas	1584/1664	1575
		1584/1664		15.50	1553/1661	Kardapas	Mundighati	1580, 1582, 1583, 1578, 1577, 1576/1663
	242/2	1042	Dangar	3.26	1070/1643	1031(Road) & 1039 (Road)	1040, 1041	1043, 1044
		1078/1644		7.29	724	Part plot of 1078	1083 & Part plot of 1078	1070/1643
			Total	814.98 Ac (329.811 ha)				

By Order of the Governor



(DR. MONA SHARMA)

Additional Chief Secretary to Government

By e-mail: deputydirectorpp@rediffmail.com

Memo No. 22792 / FE&CC Date 23.12.21

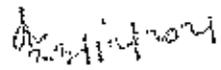
Copy forwarded to the Director of Printing, Stationery and Publication, Odisha Cuttack for publication in an extra-ordinary issue of the Odisha Gazette and supply 10 copies of printed notification each to FE&CC Deptt./Director of Land Records and Surveys, Odisha, Cuttack/ Collector, Kalahandi/ D.F.O., Kalahandi South Division/Tahasildar-Thuamul Rampur, Dist-Kalahandi.

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


Special Secretary to Government

Memo No. 22793 / FE&CC Date 23.12.21

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


Special Secretary to Government

Memo No. 22744 / FE&CC Date 23.12.21

Copy forwarded to the Revenue & Disaster Management Department/ Director of Land Records and Survey, Odisha, Cuttack/ R.D.C. (S.D) Berahampur, Dist-Ganjam/ Collector, Kalahandi/ Tahasildar-Thuanul Rampur, Dist-Kalahandi for information and necessary action.

Dr. 23.12.2021
Special Secretary to Government

Memo No. 22745 / FE&CC Date 23.12.21

Copy forwarded to the Principal Chief Conservator of Forests & HoFF, Odisha / Principal Chief Conservator of Forests (Forest Diversion) & Nodal Officer, FC Act O/o the PCCF, Odisha/ Regional Chief Conservator of Forests, Bhawanipatna Circle/Regional Chief Conservator of Forests, Rourkela Circle/ Divisional Forest Officer, Keonjhar Forest Division / Divisional Forest Officer, Kalahandi (South) Division for information and necessary action.

Dr. 23.12.2021
Special Secretary to Government

Memo No. 22746 / FE&CC Date 23.12.21

Copy forwarded to the O.I.C., State Portal, N.I.C., I.T. Department, Odisha Secretariat, Bhubaneswar for information and necessary action/ (5 spare copies for G.F).

Dr. 23.12.2021
Special Secretary to Government

Memo No. 22747 / FE&CC Date 23.12.21

Copy forwarded to the Under Secretary to Government, Office Establishment Section, FE&CC Department for information and necessary action with reference to their letter No.21646/F&E Dt. 22.11.2016.

Dr. 23.12.2021
Special Secretary to Government

OFFICE OF THE TAHASILDAR, THUAMUL RAMPUR

Letter No ~~228~~ /Rev dated. 12.02.2021

To

The Divisional Forest Officer,
Kalahandi South Division,
Bhawanipatna

Sub: Transmission of RoR of Mouza-Khamarpadar-804.43 Ac.

Sir,

With reference to the subject cited above, I am to send here with 01 no. of ROR as mentioned below in respect of non-forest Govt. land alienated in favour of Forest and Environment Department, Odisha Bhubaneswar, C/o. DFO, Kalahandi South Division, Bhawanipatna for raising Compensatory Afforestation against Gandhamardan -A mining lease of Odisha Mining Corporation Limited.

Sl. No.	Mouza	Name of the Project	Area (Ac.)
01	Khamarpadar	Gandhamardan-A	804.43
Total			804.43

Receipt of the ROR may kindly be acknowledged.

Encl: As above

Yours faithfully,


Tahasildar, Th.Rampur

Memo No 229 dated 12.02.2021

Copy submitted to Managing Director, OMC Ltd., Bhubaneswar /
Collector, Kalahandi / Sub-Collector, Bhawanipatna for favour of kind information.


Tahasildar, Th.Rampur

Received me copy
15.02.21
19/2/21
DFO BHO

Module 1 - Form No. 15-A

କଟିଆର

କମିଟି :- ଡା. ସା. ପ୍ର. ପାଠକ
ଆଇ :- ଡି. ପ୍ର. ପ୍ର. ପ୍ର.
ଆଇ ନମ୍ବର :- ୧୭

କମିଟି :- ଡି. ପ୍ର. ପ୍ର. ପ୍ର.
କମିଟି ନମ୍ବର :- ୧୭
ଆଇ :- କମିଟି

କମିଟିର ନାମ
&
କମିଟିର ବା କଟିଆରର ନମ୍ବର } ଡି. ପ୍ର. ପ୍ର. ପ୍ର. ୧

୧ । କମିଟିର କାର୍ଯ୍ୟକ୍ରମ ନମ୍ବର } ୧୭/୧

୨ । ପ୍ରକାର ନାମ, ପ୍ରକାର ନାମ,
କଟି ଓ ବାସନାକ୍ରମ } ଡି. ପ୍ର. ପ୍ର. ପ୍ର. କମିଟିର କାର୍ଯ୍ୟକ୍ରମ ନମ୍ବର

୩ । ସ୍ତର }

କମିଟି	କମିଟି	କମିଟି	କମିଟି	କମିଟି	କମିଟି	କମିଟି
	କମିଟି	କମିଟି	କମିଟି	କମିଟି	କମିଟି	କମିଟି
୪ । କମିଟି						

୫ । କମିଟିର ଅନୁମୋଦିତ କାର୍ଯ୍ୟକ୍ରମ

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ପରିସଂହାର କ୍ରମ ନଂ ୨୪୬/୧

ପୁସ୍ତକ ନାମ ପ୍ରକଳ୍ପ ନାମ	ବିଷୟ	ପ୍ରକାଶକ	ପୃଷ୍ଠା			ମୂଲ୍ୟ
			କ. ମି.	ଅ. ମି.	ତେଲିଗ୍ରାମ	
୨	୮	୯	୧୦	୧୧	୧୨	
୧୪୦୦	ଉତ୍କଳ			୭୦	୨୭	
୧୪୦୮	ଉତ୍କଳ			୩୭	୧୦	
୧୪୦୯/୧୫୨୬	ଉତ୍କଳ			୨୭	୦୭	
୧୪୧୦/୧୫୩୩	ଉତ୍କଳ			୧୫	୧୩	
୧୪୧୧	ଉତ୍କଳ			୨୭	୨୮	
୧୪୧୩/୧୫୪୦	ଉତ୍କଳ			୩	୫୦	
୧୪୧୪/୧୫୪୧	ଉତ୍କଳ			୨	୧୩	
୧୪୧୫/୧୫୪୨	ଉତ୍କଳ			୨	୨୦	
୧୪୧୬/୧୫୪୩	ଉତ୍କଳ			୨୧	୪୦	
୧୪୧୭/୧୫୪୪	ଉତ୍କଳ			୩୨	୩୧	
୧୪୧୮/୧୫୪୫	ଉତ୍କଳ			୧୧	୦୫	
୧୪୧୯/୧୫୪୬	ଉତ୍କଳ			୩	୦୦	
୧୪୨୦/୧୫୪୭	ଉତ୍କଳ			୧୧	୩୩	
୧୪୨୧/୧୫୪୮	ଉତ୍କଳ			୧୭	୨୫	

Blinding Space



କେନ୍ଦ୍ରୀୟ ସମ୍ପାଦକ

କେନ୍ଦ୍ରୀୟ କମର ୨୪୭/୧

ପୁସ୍ତକ ନମ୍ବର ଓ ବିଭାଗ ନାମ	ବିଷୟ	ମୂଲ୍ୟ				ମୂଲ୍ୟ
		ପୃଷ୍ଠା	କ. ମି.	ଧରଣ	କେନ୍ଦ୍ରୀୟ	
୭	୮	୯	୧୦	୧୧		୧୨
୧୧୧/୧୫୫୪	ଉତ୍କଳ			୧	୧୦	
୧୧୨	ଉତ୍କଳ			୨୩	୧୩	
୧୧୮	ଉତ୍କଳ			୨୦	୦୦	
୧୧୭/୧୫୫୫	ଉତ୍କଳ			୪	୫୫	
୧୧୯/୧୫୫୬	ଉତ୍କଳ			୨୪	୩୦	
୧୨୦/୧୫୫୭	ଉତ୍କଳ			୩	୮୫	
୧୨୧	ଉତ୍କଳ			୨୫	୦୦	
୧୨୨	ଉତ୍କଳ			୮	୫୮	
୧୨୩/୧୫୫୮	ଉତ୍କଳ			୩୧	୮୧	
୧୨୮/୧୫୫୯	ଉତ୍କଳ			୨୭	୩୯	
୧୨୨/୧୫୬୦	ଉତ୍କଳ			୧	୧୫	

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ଶିକ୍ଷା (ବେର)

ଶିକ୍ଷାବଳୀ ନମ୍ବର ୨୪୨/୧

ନୈମିତ୍ତିକ ପରୀକ୍ଷା

ପ୍ରଶ୍ନ ନମ୍ବର ପ୍ରଶ୍ନର ନାମ	ବିଷୟ	ଉତ୍ତର ଦିଆଯାଇ ଚିତ୍ରାଙ୍କନ ଓ ଲେଖନୀ	ମାର୍କ				ମୋଟ
			ସମ୍ପୂର୍ଣ୍ଣ	କ୍ର. ନି.	ଅନୁର.	ଖୋଲିଲ	
୧	୨	୩	୧୦		୧୧		୧୨
୧୫୭୫	ଗଣିତ				୧୮	୨୮	
୧୫୭୬/୧୫୫୭	ଗଣିତ				୧୯	୪୭	
୧୫୮୪/୧୫୫୪	ଗଣିତ				୧୫	୬୦	
					୫୪୭	୨୬	
					୮୦୪	୪୭	
					୧୧୫୭	୧୨	

୧୬
+ ୪୨
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 ଶିକ୍ଷାବଳୀ
 ଶିକ୍ଷାବଳୀ

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OFFICE OF THE TAHASILDAR, TH. RAMPUR

Letter No. _____ /Rev. Date. _____

To,

The Divisional Forest Officer,
Kalahandi South Division,
Bhawanipatna.

Sub: - Transmission of ROR of Mouza- Khamarpadar-10.55 Ac.

Sir,

With reference to the subject cited above, I am to send herewith 01 no. of ROR as mentioned below in respect of non-forest Govt. land alienated in favour of Forest and Environment Department, Odisha, Bhubaneswar, C/o. DFO, Kalahandi South Division Bhawanipatna for raising Compensatory Afforestation against Gandhamardan Block-A Mining Lease of Odisha Mining Corporation Limited.

Sl. No	Mouza	Name of the Project	Area (Ac.)
01	Khamarpadar	Gandhamardan Block-A Mining Lease	10.55
Total:-			10.55

Receipt of the ROR may kindly be acknowledged.

Encl.: As above.

Yours faithfully,

— Sd —
Tahasildar, Th. Rampur.

Memo No. 983

Date. 11.08.21

Copy submitted to Managing Director, OMC Ltd., Bhubaneswar / Collector, Kalahandi / Sub-Collector, Bhawanipatna for favour of kind information.


Tahasildar, Th. Rampur.

Schedule I - Form No. 39-A (Revised)



নোংরা চীফ অফিস
থানা - গুয়াহাটী
থানা নম্বর - ১৩

ক্রমিক নং - ১৩৩২
সংক্রান্ত নম্বর -
কেন্দ্র - গুয়াহাটী

কৃতকার্যকর নাম }
ও }
সংখ্যা বা স্মারিকাঙ্ক নম্বর }
৩০১/১৩৩২

১-। স্মারিকাঙ্ক প্রদান নম্বর } ১৩৩২/১

২-। কৃতকার্যকর নাম, পদবী, নাম }
জাতি ও ব্যবসায় }
৩০১/১৩৩২ }
কৃতকার্যকর ও স্মারিকাঙ্ক প্রদান, ৩০১/১৩৩২-২
নামটি কৃতকার্যকর ও স্মারিকাঙ্ক প্রদান করা
হবে।

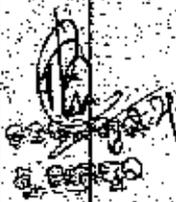
৩০১/১৩৩২ }

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ক্রমিক নং	স্মারিকাঙ্ক	বেস	ক্রমাঙ্ক এবং স্মারিকাঙ্ক প্রদান থানা	নাম	৪। কৃতকার্যকর ও স্মারিকাঙ্ক প্রদান
১।					

৩০১/১৩৩২ স্মারিকাঙ্ক প্রদান

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ପୂର୍ବ ନମ୍ବର ଫାଇଲ ନାମ	ବିଷୟ	ସିଦ୍ଧାନ୍ତ ବିଧାନିକ ଚିତ୍ରଣା ଓ ଚୈତ୍ର	ଉତ୍ତର				ମତ୍ୟ
			ଫେ	ସଂଖ୍ୟା	ସଂଖ୍ୟା	ତାରିଖ	
୭	୮	୯	୧୦		୧୧		୧୨
୧୦୪୭	ବିଜ୍ଞାପ				୩	୨୬	
୧୦୭୮ ୧୫୪୪	ବିଜ୍ଞାପ				୭	୨୮	
୨୫୩୮					୧୦	୪୪	
<p>ପରିଷଦର ସଭା ୪/୨୦୧୯ ଡି. ୨୧ ୭.୨୦ ବିଜ୍ଞାପ ବିଜ୍ଞାପ ଓ ବିଜ୍ଞାପ ଡି. ୨୮ ୨୮ ଅନୁ. ସଂ. ୧୦୪୭ ଡି. ୨୬ ଓ ୨୮ ଓ ୭ ୨୮ ବିଜ୍ଞାପ ବିଜ୍ଞାପ ବିଜ୍ଞାପ ଆକାଶ: (ବିଜ୍ଞାପ ବିଜ୍ଞାପ ବିଜ୍ଞାପ) ବିଜ୍ଞାପ ବିଜ୍ଞାପ</p> <p>  ବିଜ୍ଞାପ ବିଜ୍ଞାପ </p>							

ଡି. ୨୮
 ବିଜ୍ଞାପ
 (ବିଜ୍ଞାପ)

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GOVERNMENT OF ODISHA
FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT

NOTIFICATION

No.FE-DIV-FLD-0070-2021- 22748 / FE&CC Date 23.12.21
10F (Cons) 50/2018

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-Khamarpadar under Thuamul Rampur Tahasil in the District of Kalahandi mutated and transferred in favour of Forest, Environment & Climate Change Department for raising Compensatory Afforestation purpose thereon against proposed diversion of balance forest land of 401.7824 ha including 7.2807 ha of safety zone out of total forest land of 519.7472 ha within total mining lease area of 618.576 ha for Iron Ore Mining in Gandhamardan (Block-A) mining lease in Keonjhar District, Odisha of Odisha Mining Corporation Ltd. vide letter F. No.8-27/2016-FC dtd.05.04.2019 of Government of India, Ministry of Environment, Forests & Climate Change (FC Division) under Section 2 of the forest (Conservation) Act, 1980, the limits of which are specified below and the area of which is 71.9714 ha (177.84 acres), shall be Protected Forest with effect from the date of issue of the Notification and shall be known as "Khamarpadar Protected Forest-B".

Forest Block:

Name of the Protected Forest	:	Khamarpadar Protected Forest-B
Area in Ha	:	71.9714 ha
Area in Acres	:	177.84 acres
Name of the Village	:	Khamarpadar
Name of the Police Station	:	Thuamul Rampur
Name of the Tahasil	:	Thuamul Rampur
Name of the Sub-Division	:	Bhawanipatna
Name of the District	:	Kalahandi

Land Schedule:

Village	Khata No.	Plot No.	Kissam	Total area in Ac.	Boundary description			
					North	South	East	West
Khamarpadar	242/1	93	Dangar	22.50	94	98/1687,99	96	92
		96		31.80	95	97, 98/1687	Podapadar village boundary	93
		97		75.83	96	143, 186	Podapadar village boundary	98/1687, 138
		98/ 1687		47.71	93, 96	Part Plot of 98	97	99
Total				177.84 Ac (71.9714 ha)				

By Order of the Governor

(Signature)

(DR. MONA SHARMA)

Additional Chief Secretary to Government

By e-mail: deputydirectorpp@rediffmail.com

Memo No. 22749 / FE&CC Date 23.12.21

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 FE&CC Dept./Director of Land Records and Surveys, Odisha, Cuttack/ Collector, Kalahandi/ D.F.O., Kalahandi South Division/Tahasildar-Thuamul Rampur, Dist-Kalahandi.

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

[Signature]
Special Secretary to Government

Memo No. 22750 / FE&CC Date 23.12.21

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

[Signature]
Special Secretary to Government

Memo No. 22751 / FE&CC Date 23.12.21

Copy forwarded to the Revenue & Disaster Management Department/ Director of Land Records and Survey, Odisha, Cuttack/ R.D.C. (S.D) Berahampur, Dist-Ganjam/ Collector, Kalahandi/ Tahasildar-Thuamul Rampur, Dist-Kalahandi for information and necessary action.

[Signature]
Special Secretary to Government

Memo No. 22752 / FE&CC Date 23.12.21

Copy forwarded to the Principal Chief Conservator of Forests & HoFF, Odisha / Principal Chief Conservator of Forests (Forest Diversion) & Nodal Officer, FC Act O/o the PCCF, Odisha/ Regional Chief Conservator of Forests, Bhawanipatna Circle/Regional Chief Conservator of Forests, Rourkela Circle/ Divisional Forest Officer, Keonjhar Forest Division / Divisional Forest Officer, Kalahandi (South) Division for information and necessary action.

[Signature]
Special Secretary to Government

Memo No. 22753 / FE&CC Date 23.12.21

Copy forwarded to the O.I.C., State Portal, N.I.C., I.T. Department, Odisha Secretariat, Bhubaneswar for information and necessary action/ (5 spare copies for G.F).

[Signature]
Special Secretary to Government

Memo No. 22754 / FE&CC Date 23.12.21

Copy forwarded to the Under Secretary to Government, Office Establishment Section, FE&CC Department for Information and necessary action with reference to their letter No.21646/F&E Dt. 22.11.2016.

[Signature]
Special Secretary to Government

OFFICE OF THE TAHASILDAR, TH.RAMPUR

Letter No. _____ Rev. _____ Date. _____

To.

The Divisional Forest Officer,
Kalahandi South Division,
Bhawanipatna.

Sub: - Transmission of ROR of Mouza- Khamarpadar-177.84 Ac.

Sir,

With reference to the subject cited above, I am to send herewith 01 no. of ROR as mentioned below in respect of non-forest Govt. land alienated in favour of Forest and Environment Department, Odisha, Bhubaneswar, C/o. DFO, Kalahandi South Division, Bhawanipatna for raising Compensatory Afforestation against Gandhamardan Block-A Mining Lease of Odisha Mining Corporation Limited.

Sl. No.	Mouza	Name of the Project	Area (Ac.)
01	Khamarpadar	Gandhamardan Block-A Mining Lease	177.84
Total :-			177.84

Receipt of the ROR may kindly be acknowledged.

Incl.: As above.

Yours faithfully,

Tabasildar, Th.Rampur.

Memo No. _____

Date: _____

10/07/20

Copy submitted to Managing Director, OMC Ltd., Bhubaneswar / Collector, Kalahandi / Sub-Collector, Bhawanipatna for favour of kind information.


Tabasildar, Th.Rampur.

ଖବିଆର

କ୍ଷେତ୍ର :- ଖାମ୍ବାପୁର
ଥାନ :- ପୁ. ଖୁମପୁର
ଆକାର ନମ୍ବର :- ୪୭

ବହୁତୀ :- ପୁ. ଖୁମପୁର
ବହୁତୀ ନମ୍ବର :- ୪୭
ଝିଲ୍ଲା :- କାମୁହାଣ୍ଡି

କର୍ମଚାରୀଙ୍କ ନାମ
ଓ
କେଉଁଠି ବା ଖବିଆରର ନମ୍ବର

ଓଡ଼ିଶା ସରକାର

୧ । ଖବିଆରର କ୍ରମିକ ନମ୍ବର

୨୪୭/୧

୨ । ପ୍ରକାର ନାମ, ପିନ୍ଧା ନାମ,
କର୍ମ ଓ ବାସସ୍ଥାନ

ଜଣକ ଓ ମୂଲ୍ୟାଙ୍କନ କରୁଥିବା ମାଧ୍ୟମରେ
ସମ୍ପର୍କିତ କର୍ମଚାରୀଙ୍କୁ ଦର୍ଶାଇ ଦିଆଯାଏ

୩ । ସୂଚ

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କ୍ର. ନମ୍ବର	ନାମ	ପିନ୍ଧା	କର୍ମ	ନିୟମାବଳୀ ଓ ମାଧ୍ୟମରେ ସୂଚିତ ଥାଏ	କେତ	୪ । କର୍ମଚାରୀଙ୍କ ବ୍ୟବସାୟ ବିବରଣୀ
୫ । କେତ						

୬ । ବିବରଣୀ ଅନୁସାରେ ସୂଚିତ ଥାଏ

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ଶିକ୍ଷା (ବିଭାଗ)

ପ୍ରତିଷ୍ଠାପନା ବର୍ଷ ୨୦୧୬/୧୭

ପ୍ରତିଷ୍ଠାପନା ବର୍ଷ (Year of Establishment)	ନାମ (Name)	ପଠ୍ୟପୁସ୍ତକ ବିଭାଗ (Textbook Division)	ପାଠ୍ୟପୁସ୍ତକ (Textbook)				ମୋଟ (Total)
			ପ୍ରଥମ (I)	ଦ୍ୱିତୀୟ (II)	ତୃତୀୟ (III)	ଚତୁର୍ଥ (IV)	
୨୦୧୬	ପାଠ୍ୟପୁସ୍ତକ ବିଭାଗ				୨୨	୧୦	୩୨
୨୦୧୬	ପାଠ୍ୟପୁସ୍ତକ ବିଭାଗ				୨୧	୧୦	୩୧
୨୦୧୬	ପାଠ୍ୟପୁସ୍ତକ ବିଭାଗ				୨୨	୧୩	୩୫
୨୦୧୬	ପାଠ୍ୟପୁସ୍ତକ ବିଭାଗ				୪୦	୨୧	୬୧

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 ଶିକ୍ଷା ବିଭାଗ
 ପାଠ୍ୟପୁସ୍ତକ ବିଭାଗ

ମୋଟ ପାଠ୍ୟପୁସ୍ତକ ୩୫୫, ୨୫୯୫

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

Indira Paryavaran Bhawan,
Aliganj, Jorbagh Road,
New Delhi – 110003

Dated: 22nd March, 2021

To

The Addl. Chief Secretary (Forests),
Government of Odisha,
Bhubaneswar.

Sub: Diversion of balance of 76.7206 ha out of proposed diversion of 117.9648 ha (originally proposed 216.3617 ha) of forest land (out of which broken up area of 41.2442 ha of forestland has been diverted vide Ministry's letter dated 24.04.2017) in favour of Odisha Mining Corporation Limited (OMC) Ltd. for mining of Iron Ore in Gandhamardan Block-A in Keonjhar District in the State of Odisha.

Sir,

I am directed to refer to the Government of Odisha's letter No 10F (Cons) 53/2006/13872/F&E dated 16.08.2006 on the above-mentioned subject seeking prior approval of the Central Government under Section-2 of the Forest (Conservation) Act, 1980 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 and recommendation thereof by the Forest Advisory Committee (FAC), In-principle/Stage-I approval for diversion of 117.9648 ha of forest land (fresh area of 76.7206 ha and 41.2442 ha of broken forest land) out of 216.3617 ha of forest land in favour of Odisha Mining Corporation Limited (OMC) for mining of iron ore in Gandhamardan Block-A was accorded vide this Ministry's letter of even number dated 17.02.2009 subject to fulfilment of certain conditions.

2. The State Government has furnished compliance report in respect of the conditions stipulated in the in-principle approval and has requested the Central Government to grant final approval. Said proposal for grant of Stage-II clearance was deliberated in the FAC meeting held on 16.3.2016 and the broken up forest area of 41.2442 ha only was recommended under section 2 (ii) of Forest Conservation Act 1980 subject to certain conditions inter-alia stipulating that balance forest land of 76.7206 ha will be considered and examined at the time of consideration of balance forest land 401.7824 ha out of total forest land of 519.7472 ha within total Mining Lease area of 618.576 ha of mining lease (Block-A) as forwarded by the Government of Odisha vide their letter dated 7.04.2016.

3. After receipt of satisfactory compliance report from the State Government and approval of competent authority, Stage-II approval for the broken up area of 41.2442 ha only was granted vide Ministry's letter of even number dated 24.04.2017. Proposal for balance forest area of 401.7824 ha was also considered and recommended by the Forest Advisory Committee in its meeting held on 21.02.2019

and based on the recommendation of the FAC, forest area of 401.7824 ha was granted Stage-I approval by the Ministry vide letter dated 5.04.2019.

4. Government of Odisha's letter No. 10F (Cons) 50/2018/6834/F&E dated 04.04.2019 has requested to consider Stage-II approval for balance forest land of 76.7206 ha out of proposed diversion of 117.9648 ha of forest land (out of which 41.2442 ha of broken up area already diverted vide this Ministry's letter of even no. dated 24.04.2017) in favour of Odisha Mining Corporation Limited (OMC) for mining of iron ore in Gandhamardan Block-A in Keonjhar district in the State of Odisha.

5. After careful examination of the proposal on the basis of the compliance report furnished by the Government of Odisha vide their letter No. 10F (Cons) 50/2018-10854/F&E dated 10.07.2020 and 19718/9F (MG)-12/2004 dated 12.11.2020, final approval of the Central Government is hereby accorded for diversion of balance forest area of 76.7206 ha out of proposed diversion of 117.9648 ha (originally proposed 216.3617 ha) of forest land (out of which 41.2442 ha of broken up area was diverted vide Ministry's letter dated 24.04.2017) in favour of Odisha Mining Corporation Limited (OMC) Ltd. for mining of Iron Ore in Gandhamardan Block-A in Keonjhar District in the State of Odisha subject to the following conditions:

- A. **Conditions which need to be complied by User agency prior to handing over of Forest land**
 1. KML files of the Forest area diverted, CA area and other works proposed to be carried out from from CAMPA funds deposited against the project shall be uploaded on a green watch portal.
 2. The cost of felling of trees shall be deposited by the User Agency with the State Forest Department;
- B. State government shall ensure complete compliance of the provisions of FRA 2006.
- C. **Conditions which need to be complied on field after handing over of forest land to the user agency by the State Forest Department**
 - i. Legal status of the diverted forest land shall remain unchanged;
 - ii. **Compensatory Afforestation**
 - a. The State Government shall ensure that compensatory afforestation over the non-forest land equal in extent to the forest land being diverted shall be raised within three years from the date of issue of Stage –II Clearance and maintained thereafter as per approved plan by the State Forest Department at the cost of the User Agency;
 - b. The State Government shall ensure that Penal Compensatory Afforestation over an area of 5 times in extent to the area used under violation of FC Act, 1980 i.e. 33.388 ha (31.404 +1.984 ha) shall be raised from the funds already provided by the User Agency within a period of three years from the date of issue of Stage –II approval;
 - iii. **Net Present Value**
 - a. The State Government has realized the NPV of the forest area diverted under this proposal from the User Agency as per the Judgment of the Hon'ble Supreme Court of India dated 28.03.2008 & 09.05.2008 in IA No. 566 in WP (C) No. 202/1995 and guidelines issued by this Ministry in this regard. Additional NPV if becomes due as per final order of Hon'ble Supreme Court, shall be paid by the User Agency;
 - b. The user agency shall pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India.
 - iv. Compensatory levies for this project, if any to be realized in future from the User Agency, shall be deposited into the account of CAMPA of the State

- concerned through e-portal (<https://parivesh.nic.in>);
- v. The State Govt. shall ensure that the activities proposed in the approved scheme for fencing, protection and regeneration of the safety zone area (7.5 meters strip all along the outer boundary of the mining lease area as recommended by the State Govt.) shall be implemented within three year at the project cost from the issue of Stage-II Clearance;
 - vi. The State Govt. shall ensure that the User Agency shall carry out 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 Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities area satisfactorily executed.
 - vii. The mining lease holder shall, after ceasing mining operations, undertake re-grassing the mining area, and any other areas which may have been disturbed due their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna, etc.
 - viii. The State Govt. shall ensure that the boundary of the diverted forest land, mining lease and safety zone 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 co-ordinates;
 - ix. The State Government shall ensure that the User Agency shall implement the afforestation measures in the blanks within the lease area, as well as along the roads outside the lease area diverted under this approval, as per approved scheme, wherever possible and technically feasible, in consultation with the State Forest Department at the project cost by involving local community;
 - x. The State Govt. and the user agency shall ensure 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 granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under;
 - xi. The State Govt. and the user agency shall ensure that no mining shall be carried out in the land required to be maintained as safety zone all around the mining area;
 - xii. The State Govt. shall ensure that user agency either himself or through the State Forest Department shall undertake gap planting 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 100 m. from outer perimeter of the mining lease as per scheme submitted along with the compliance report;
 - xiii. The State Government and the user agency shall ensure that the water used for processing shall be discharged only after proper treatment;
 - xiv. Afforestation on degraded forest land to be selected elsewhere, measuring one and a half times the area under safety zone, shall also be done at the project cost under the supervisions of the State Forest Department and

- maintained thereafter in accordance with the approved Plan in consultation with the State Forest Department;
- xv. Safety Zone Management: Following activities shall be undertaken by the user agency for the management of safety zone:
- a. User agency shall ensure demarcation of boundary of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its protection 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;
 - b. Boundary of the safety zone of the mining lease, adjacent to habitation/roads, should be properly fenced by the user agency;
 - c. 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
 - d. The State Government and the user agency shall ensure that safety zone is maintained as per the prescribed norms;
- xvi. Following activities, as per approved plan / schemes, shall be undertaken by the User Agency under the supervision of the State Forest Department:
- a. Mitigative measures to minimize soil erosion and choking of stream shall be implemented within a period of three year with effect from the issue of Stage-II clearance in accordance with the approved Plan in consultation with the State Forest Department.
 - b. 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;
 - c. Construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour in accordance with the approved scheme;
 - d. 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 28o; and
 - e. No damage shall be caused to the top-soil and the user agency will follow the top soil management plan.
- xvii. The State Govt. ensure that the User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;
- xviii. The State Govt. and the user agency shall ensure that no labour camp shall be established on the forest land;
- xix. The State Govt. shall ensure that 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;
- xx. The user agency will abide by the applicable recommendations of the State Government;
- xxi. The State Govt. and the user agency shall ensure that the layout plan of the proposal shall not be changed without the prior approval of the Central Government.
- xxii. The State Govt. and the user agency shall ensure that the forest land shall not be used for any purpose other than that specified in the proposal;
- xxiii. The State Govt. and the user agency shall ensure 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;

xxiv.The State Govt. and the user agency shall ensure that no damage to the flora and fauna of the adjoining area shall be caused;

xxv.The State Govt. and the user agency 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;

xxvi.The User Agency shall regularly undertake desilting of village tanks and other water bodies, as per detailed de-silting plan approved by the Forest Department, so as to mitigate the impact of siltation of such tanks/water bodies;

xxvii.The State Govt. shall ensure that 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 this Ministry by the end of March every year;

xxviii.Any other condition that the concerned Integrated Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife; and

xxix.The State Govt. shall ensure that the user agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines & Hon'ble Court Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project

Yours faithfully,

(Sandeep Sharma)

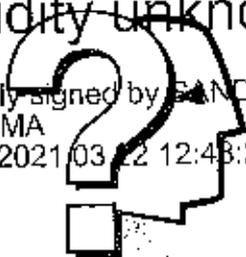
Assistant Inspector General of Forests (FC)

Copy to:

1. PCCF (HoFF), State Forest Department, Government of Odisha, Bhubaneswar
2. Nodal Officer and PCCF, State Forest Department, Government of Odisha, Bhubaneswar
3. Regional Officer (Central), Integrated Regional Office of the MoEF&CC at Bhubaneswar.
4. Monitoring Cell of FC Divisions, MoEF&CC, New Delhi.
5. Guard file.

Validity unknown

Digitally signed by SANDEEP
SHARMA
Date: 2021.03.22 12:43:27 IST



115



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID: dfokjr.od@gov.in

6193
28.07.18 To

No. 5051 /Mining-77/2017
Dated, Keonjhar the 28.07.18 2018

30/07/18

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

Sub: Diversion of 232.438 ha (originally proposed 539.4049 ha) of forest land in Gandhamardan Block-B for 1st renewal of mining lease for Iron Ore mining by M/s Odisha Mining Corporation Ltd in Keonjhar district, Odisha: Implementation of mitigative measures in impact zone of Gandhamardan-A and Gandhamardan-B mining blocks as suggested in Bio-diversity Conservation Plan prepared by NIT, Rourkela.

X-Sub: Demand for payment of Bio-diversity Conservation Plan.

Ref: Letter No. 10F(Cons) 46/2018-15621/F&E dated 18.07.2018 of Special Secretary to Government, F&E Department, Govt. of Odisha.

Sir,

With reference to the above cited letter, it is requested to deposit the approved amount of ₹9,54,17,000/- (Rupees nine crore fifty-four lakh seventeen thousand) only towards Bio-diversity Conservation Plan for implementation of mitigative measures in impact zone of Gandhamardan-A and Gandhamardan-B of M/s OMC Ltd as per wage rate Rs. 224.30 per man-day. The Bio-diversity Conservation Plan has been technically approved by the PCCF, Odisha, Bhubaneswar on dated 06.07.2018 in compliance with the additional condition No. 14 vide letter No. 5-ORA014/2005-BHU dated 18.10.2007 of ERO, MoEF&CC, Govt. of India, Odisha, Bhubaneswar through e-portal of MoEF&CC as provided in the <http://forests clearance.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,

Sadash
Divisional Forest Officer,
Keonjhar Division.

Memo No. _____ / Dated.

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela/ Principal Chief Conservator of Forests, Odisha, Bhubaneswar for favour of kind information.

Divisional Forest Officer,
Keonjhar Division.

RECEIVED
Office
29/7

Memo No. _____ / Dated.

Copy submitted to the Special Secretary to Government, F&E Department, Govt. of Odisha for favour of kind information with reference to his letter No. 15621/F&E dated 18.07.2018.

Divisional Forest Officer,
Keonjhar Division.

M(F&E)
30/7/18

APB
30.07.2018

AGENCY COPY	
NEFT / RTGS CHALLAN for Ad-HOC CAMPA	
Date : 30-07-2018	
Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	5885700538
MoEF/SG File No.	NA
Location.	ORRISA
Address.	OMC House Khordha
Amount(in Rs)	95417000/-
Amount in Words :Nine Crore Fifty-Four Lakh Seventeen Thousand Rupees Only	
NEFT/RTGS to be made as per following details;	
Beneficiary Name:	ORRISA CAMPA
IFSC Code:	CORP0000371
Pay to Account No.	150825885700538 Valid only for this challan amount.
Bank Name & Address:	Corporation Bank Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003
<ul style="list-style-type: none"> This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only This challan is valid only for seven days. 	

BANK COPY	
NEFT / RTGS CHALLAN for Ad-HOC CAMPA	
Date : 30-07-2018	
Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	5885700538
MoEF/SG File No.	NA
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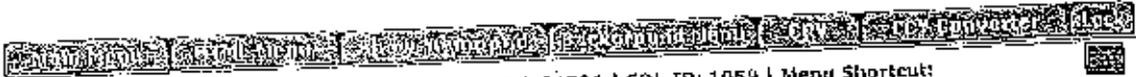
After making successful payment, User Agencies may send a line of confirmation through
Email: helpdeskampa@corpbank.co.in

K. S. S. S.
Manager (Finance)
The Odisha Mining Corporation Ltd.
Bhubaneswar

ANDBH18214486246
07-08-2018



113



02 August, 2018 | User: SUC21731 | SOL ID: 1059 | Menu Shortcut:

Real Time Gross Settlement System

Function	INQUIRY	Message Type	R41	UTR	ANDB118210486245
SOL ID	1059	Paysys ID	RTGS	Tran. Type	Transfer
Tran. ID	S7657884	Tran. Date	02-08-2018		

Sender's Correspondent Details

Bank/Branch Code	011	001059	ISO Code	ANDB0001059
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Receiver Institution Details

Bank/Branch Code*	017	R00371	ISO Code	CORP0000371
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Ordering Institution Details

Bank/Branch Code	011	001059	ISO Code	ANDB0001059
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Institution ID		Address 1	
Name		Address 3	
Address 2			

Ordering Customer Details

Account No.*	105911011000001	Cust. Name*	ODISHA MINNING CORPORATION LTD
Address 1*	OMC HOUSE UNIT 5 BHUBANESWAR I	Address 2*	BBSR

Account with Institution Details

Bank/Branch Code		ISO Code	
Institution ID		Address 1	
Name		Address 3	
Address 2			

Beneficiary Customer Details

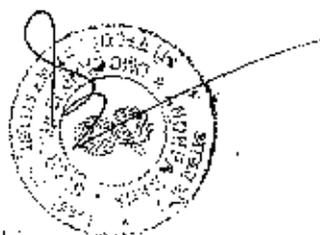
A/c. ID*	150825885700530	Address 1*	CORPORATION BANK
Cust. Name*	ODRISA CAMPA	Address 3	
Address 2			

Payment Details

Line 1		Line 2	
Line 3		Line 4	
Charge Details			

Sender to Receiver Information

Line 1	ATTN	Line 2	//OMC
Line 3		Line 4	
Line 5		Line 6	





02 August, 2018 | User: SUC21731 | SOL ID: 1059 | Menu Shortcut:

Real Time Gross Settlement System

Function	INQUIRY	Message Type	R41	UFIR	ANDBH1821448624G
SOL ID	1059	Paysys ID	RTGS	Tran. Type	Transfer
Tran. ID	S76S7884	Tran. Date	02-08-2018		

General Details

Message Status TRANSMITTED

Reject Reason Code

Rejection Reason

Message Priority (1-99)* 11

Value Date* 02-08-2018

Dr. A/c. ID* 105911011000001 INR 1059 ODISHA MINING CORPORATION

Cr. A/c. ID 10591025399011 INR 1059 RTGS SETTLEMENT ACCOUNT

Tran. Amount* INR 95417000.00

Mobile No 919437444309

Email ID SKM_OMC2005@YAHOO

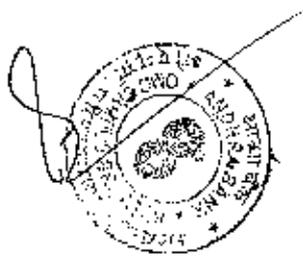
Charge Event ID RTGSOUT

Charge A/c. ID 105911011000001 INR 1059 ODISHA WINNING CORPORATION

Instrmt Type CHQ

Instrmt. No. 1475 Instr. Date 02-08-2018

Tran. Particulars



Financial Outlay towards Implementation of Mitigative Measures prescribed in the *Bio-Diversity Conservation Plan* prepared by NIT, Rourkela in the impact zone of Gandhamardan Block-A & B Iron Ore Mines of M/s OMC Ltd.

(Wage Rate @ Rs.224.30 per MD)

Sl. No.	Activities	Total Fund required (Rs.)	Funds Deposited by the UA as per approved SSWLCP (Rs.)	Balance Fund to be deposited by the UA (Rs.)
1	Regeneration/ Re-vegetation Cost of Bald Hill Plantation @ 1600 plant per ha over 150 ha @ Rs.2,63,624.15/- with 10 year maintenance	3,95,43,623	-	3,95,43,623
2	Soil & Moisture Conservation measures i. Cost of check dam 1 mtr x 1 mtr x 1 mtr= 1cum @ Rs.2708.51 per each x 60 nos.=Rs.1,62,511/- ii. Cost of check dam 2 mtr size (2mtr x 1 mtr x 1 mtr=2cum @ Rs.5417.02 per each x 200 nos.= Rs.10,83,404/- iii. Cost of check dam 3 mtr size (3 mtr x 1 mtr x 1 mtr= 3 cum @ Rs.8125.53 per each x 180 nos.=14,62,595/- iv. The cost of contour trench @ Rs.114.22 each and the size of contour trench is 2m x 0.5m x 0.5m x 20,000 nos. =22,84,400/- alongwith Agave planting-3 nos. on each soil mound of trench. v. The cost norm for agave fencing per ha is Rs.11,088/- x 100 ha= Rs.11,08,800/-	61,01,710	58,90,000	2,11,710
3	Measures for faunal diversity a. Prevention of fall of wild animals into mining pit Mining site should be fenced with solar fencing. i. Cost of installation of solar fencing @ Rs.1,50,000/- per KM x 6.666 KM= Rs.10,00,000	10,00,000	10,00,000	-
	b. Mitigation measures for birds and other small reptiles by keeping artificial nests. i. Cost of nests for birds/ reptiles Rs.1000/- per nest x 1000 nos.=Rs.10,00,000	10,00,000	-	10,00,000

	<p>c. Programme to create awareness among local people, for wildlife conservation.</p> <p>i. Cost of holding of 3 nos. awareness meeting in different village with 100 nos. of participants @ Rs.35,000/- per meeting= Rs.1,05,000/-</p> <p>ii. Cost of leaf let 440 nos. @ Rs.25/- per leaflet =Rs.11,000/-</p> <p>iii. Cost of awareness Banner 30 nos. @ Rs.300/- Rs.9,000/-.</p> <p>iv. Cost of hired vehicle for advertisement @ Rs.3000/- per day x 50 days=Rs.1,50,000/-</p>	2,75,000	27,50,000	-
	<p>d. Construction of Bird Bath for protection of faunal species in summer</p> <p>i. Cost of digging of 20 nos. of water tank of size 10 m x 10 m x 3 m with stone pitching) for Bird bath @ Rs.50,000/- per water tank.</p>	10,00,000	-	10,00,000
4	<p>Fire Management</p> <p>a. Creation of awareness among local people</p>	-	Provision for awareness activity is earmarked in SSWI.CP.	-
	<p>b. Incentive to local villagers</p> <p>- Cost of providing incentive to villagers of 41 villages @10,000/- per village per year for 10 years = Rs.10,000/- x 41 villages x 10 years</p>	41,00,000	-	41,00,000
	<p>c. For hired vehicle for fire-fighting squad</p> <p>-Cost for 04 months in a year @ Rs.33000/- per month= Rs.132000/- including fuel charge for 10 years.</p>	13,20,000	-	13,20,000
	<p>d. Deployment of Fire-fighting squad</p> <p>i. Cost towards 08 squads consisting 10 persons x 30 days @ Rs.224.30 x 4 months= Rs.21,53,280/-</p> <p>ii. Cost of contingency like cracker etc. Rs.1,30,720/- Total=Rs.22,84,000/- x 10 years</p>	2,28,40,000	2,28,40,000	-
	<p>e. Fire-fighting equipment</p> <p>i. Cost of fire fighting jackets @ Rs.1500/- per unit x 10 nos.=Rs.15000/-</p> <p>ii. Cost of helmet @ Rs.500/- per unit x 10 nos.=Rs.5000/-</p> <p>iii. Cost of fire proof shoes @ Rs.500/- per unit x 10 nos.=Rs.5000/-</p> <p>iv. Cost of fire extinguisher @ Rs.2500/- per unit x 5 nos.= Rs.12500/-</p>	8,60,000	7,20,000	1,40,000

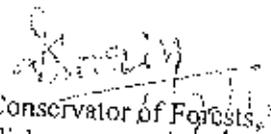
	<p>v. Cost of water bottle @ Rs.300/- per unit x 10 nos.= Rs.3000/-</p> <p>vi. Cost of first Aid Kit Rs.9500/- Total Rs.50000/- x 10 years</p> <p>vii. Cost of providing search light to local villagers -144 nos. Hi-MAX light @ Rs.2500/- each = Rs.3,60,000/- Total= Rs.8,60,000/-</p>			
	<p>f. Fire blower with maintenance Make- Andreas STIHL Pvt. Ltd. Blower Model- Black Pack 4 stroke Blower (BR600)</p> <p>i. Cost of Blower @ Rs.50000/- per unit x 10 nos.= Rs.5,00,000/-</p> <p>ii. Cost towards maintenance with fuel @ Rs.11000/- per blower per year x 10 x 10 yrs= Rs. 11,00,000/-</p>	16,00,000	-	16,00,000
	<p>g. Bio-Diversity protection squad to prevent illicit felling, prevent uncontrolled collection of fruits, flower, leave etc. and prevent shifting cultivation</p> <p>i. Cost towards one squad consisting 10 persons x 30 days x 12 months @ Rs.224.30/MD for 10 years=Rs.80,74,800/-</p> <p>ii. Cost of two nos. skilled labour @ Rs.264.30 x 360 days x 10 years= Rs.19,02,960/-</p> <p>iii. Cost of one hired vehicle 12 seated including fuel @ Rs.33000/- per month x 12 months x 10 yrs=Rs.39,60,000/-</p> <p>iv. Cost of Rescue cage, instrument and unforeseen expenditure=Rs.10,00,000/- Total=Rs.1,49,37,760/-</p>	1,49,37,760	-	1,49,37,760
5	<p>Alternative livelihood/ Ecosystem development initiative</p> <p>a. Honeybee keeping: District Small Scale Industries Centre shall be requested to provide necessary accessories, technical guidance and marketing facilities under some poverty eradication programme.</p> <p>i. Cost of training to 20 members + subsidize equipment to each participant per village @ Rs.1,10,000/- for 30 villages= Rs.33,00,000/-</p>	83,00,000	-	83,00,000

	ii. Cost of Refreshers training for bee keeping= Rs.50,000/- per year for 10 years for 20 person=Rs.5,00,000/- iii. Cost of Building at Suakati for processing, packaging & branding honey=Rs.30,00,000/- iv. Cost of Recurring expences, unforeseen expenses @ Rs.1,50,000/- per year for 10 years =Rs.15,00,000/-. Total= Rs.83,00,000/-			
	b. Vegetable and mushroom cultivation in collaboration with Horticulture Department -Cost to increase livelihood provide Rs.5000/- per house hold for vegetable as well as mushroom cultivation to encourage for 10 families per year in one village in each year for 10 years scheme= Rs.5000/- per house x 10 families x 10 years	Rs.5,00,000/-	-	Rs.5,00,000/-
	c. Press khali preparation: Financial and technical support to be provided to them under the guidance of Small Scale Industries Department. Two cluster V.S.S will be selected within the impact zone. 1. Khajurimundi VSS. 2. Nitigotha VSS. i. Cost towards construction of cluster godown of size 70ft. x 35 ft.= Rs.15,00,000/- ii. Cost of 2 nos. of Moulding Machine Rs.435420/- iii. Cost of Packaging @ Rs.67419/- per machine x 2 nos.=Rs.134838/- iv. Cost of Stitching Machine Usha Craft Master @ Rs.6500/- per machine x 40 nos.=Rs.2,60,000/- v. Cost for electrification 25 KV=Rs.5,00,000/- Total Rs.2830318/- (1 no. of location) For 2 no. of location site Rs.28,30,318/- x 2 = Rs.56,60,636/- or Rs.56,61,000/-	56,61,000/-	-	56,61,000/-
	d. Poultry: Necessary training and support to be provided by Animal Husbandry Department, Incense stick preparation etc. i. Cost of Training for 20 villages @ Rs.10000/-=Rs.2,00,000/- ii. Cost towards providing chick for 20 villages @ Rs.10000/-=Rs.2,00,000/-	4,00,000/-	-	4,00,000/-

	e. Vaccination of Cattle - Cost of Vaccination & de-worming camp for 13240 nos. of cattles @ Rs.50000/- per year x 10 Yrs	5,00,000/-	2,00,000/-	3,00,000/-	
	f. Monitoring & Evaluation	5,00,000	-	5,00,000/-	
				Total	7,95,14,093/-
6	Add Escalation (20%)				1,59,02,819/-
				Grand Total	9,54,16,912/- or rounded off to 9,54,17,000/-

(Rupees Nine crore fifty four lakh seventeen thousand) only

Technically Approved


Principal Chief Conservator of Forests,
Odisha
Odisha Bhuvaneshwar

SCHEME FOR
MANAGEMENT OF TOP SOIL
AT GANDHAMARDAN (BLOCK-A) IRON ORE MINE
OF
M/S ODISHA MINING CORPORATION LTD.
(As it pertains to diversion of 401.7824 hectare of Forest Land)



Compliance to:

Condition No. 2 (xiv).e of of the stage-II Forest Clearance granted by MoEF&CC,
Govt.of India vide F.No. 8-27/2016-FC dt 05.04.2019.

(@ Rs. 311.00/- per manday)

SCHEME FOR MANAGEMENT OF TOP SOIL AT GANDHAMARDAN (BLOCK-A) IRON ORE MINE OF M/S ODISHA MINING CORPORATION LTD.

(As per condition No 4 (vii) (e) of "final approval" order of MoEF & CC, Govt. of India vide F.No.8-105/2006-FC Dated 24th April 2017)

1. INTRODUCTION

Government of India in the Ministry of Environment, Forest and Climate Change has granted Stage-I Forest Clearance vide letter F.No. 8-27/2016-FC, Dt. 05.04.2019 over 401.7824 ha in favour of Gandhamardan (Block-A) Iron Ore Mines of M/s Odisha Mining Corporation Limited. Condition no. (xiv) e. of Stage-I FC stipulates that

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

Earlier a scheme on planting adequate drought hardy plant species and sowing of seeds has been approved by RCCF, Rourkela @ Rs. 298.00 to comply with the Stage-II approval over 41.2442 ha within Gandhamardan (Block-A) Iron Ore Mines. Labour Commissioner of Odisha vide letter no. 2816/LC dt. 25.05.2021 has revised the minimum wage rate to Rs. 311.00 per man day. In this context the scheme has been revised @ Rs. 311.00 per man day.

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 process.

2. Top Soil management.

In order to manage the top soil the following suggestions are put forth and to be practised.

- ✓ Top soil likely to be generated is to be dumped at earmarked place not affected by mining operation.
- ✓ Dump may have a slope less than 28°
- ✓ Broadcast grass seed over the top soil.
- ✓ During reclamation 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 approved mining plan, no top soil will be generated during first 5 years of mining. But from 2023-24 till conceptual around 0.309 million Cu.m. of top soil will be generated. Top soil produced will be utilized in reclamation of mine and plantation. The stock register for production and utilization of top soil will be maintained by the User Agency.

This quantity will be generated in course of mining activities mostly during expansion of mining area.

4.0 Plan 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 Gandhamardan (Block-A) 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 cm to 10 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. Some of the top soil will be stored temporarily until it can be used for plantation works & dump plantation. The details of collection of top soil are given below:

Dimension of the top soil stock yard: 150 mt x 100 mt x 20 mt= 1.5 ha

Volume to be stacked=0.309 million Cum.

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. Budgetary provision of 15% of the total project cost has been earmarked on this score.

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 total cost of the project is given as below.

Sl No.	Description of the work	Funds Required
1	Virgin forest area from where top soil can be collected. Stripping cost 0.5ha/hr@ 1770.00. Therefore 354.2462 ha cost=708.4924 hrs Total 708.4924 hrs x Rs. 1770/-=12,54,031.55 Loading & transporting cost from the site to top soil stockpiles comes to be : 309000 x (tonnage factor)1.5= 4,63,500 ton 463500 ton x Rs. 35/- (Loading & Transportation @ Rs. 35/ton) = Rs. 1,62,22,500/- Cost of leveling with 4800 manpower @311/- Rs. 311.00 x 4800=Rs. 14,92,800/-	Rs. 1,89,69,331.55
2	Cost for sowing of grass seeds over 1.5 ha @Rs 26043.00/-ha (Annexure-I).	Rs. 39064.50
3	Maintenance of grass seed @ (3 mandays weekly for period of six month) Total 72 mandays for six months 72 x Rs. 311.00= 22392.00	Rs. 22392.00
4	Retaining wall over a length of 150 meters (Annexure-II)	4,87,000.00
5	Garand drain over a length of 150 meters (Annexure-III)	53,100.00
	Sub-total	Rs. 1,95,70,888.05
3	Inspection, monitoring & evaluation @15% of the total project cost	Rs. 29,35,633.21
	Total	Rs. 2,25,06,521.26
4	Price escalation @20%	Rs. 45,01,304.25
	Grand Total	Rs. 2,70,07,825.51 or say Rs. 2,70,07,900.00

(Rupees two crore seventy lakh seven thousand nine hundred) only

The total cost of the implementation of Top soil management scheme will be Rs. 2,70,07,900/- (Rupees two crore seventy lakh seven thousand nine hundred) only as detailed above which will be borne by User Agency at their project cost. The cost of the scheme may subject to increase in amount considering the increase in materials and labour charges which will also be borne by the User Agency.

7.0. Execution.

This is 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

Annexure-I

Estimate for sowing of grass seeds per ha.

Cost of broadcasting of grass seeds per ha. Labour rate Rs.311.00/- 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	311.00/- Labour	933.00
2	Adding FYM and good earth	2 TL FYM 2TL Good earth	500/TL FYM 500/TL Good earth	2000.00
3	Cost of grass seed 500 Kg/per ha		40/Kg	20000.00
4	Broad casting	10 nos	311.00/-Labour	3110.00
Total				26043.00

Annexure-II

- 1) E/W excavation by mechanized means
Qty 150m x 2m x 0.3 = 90 Cum
Taking Qty 80% = 72 Cum @ Rs. 54.70 = Rs. 3938.40
- 2) Blasting
Taking 20 % of Qty item (1) = 18 cum @ Rs. 354.00 = Rs. 6372.00
- 3) Providing crate boulder
Bottom layer 150 m x 1.5m x1.00 = 225 cum
Second layer 150 m x 1.0 m x 1.00=150 cum
375 cum
@Rs. 1271.10/cum =Rs. 4,76,662.50
Rs. 4,86,972.90
Say Rs. 4,87,000.00

Annexure-III

Excavation of earthen drain (Garland drain) near proposed Top Soil dump at Gandhamardan

- 1) E/W excavation by mechanical means
150 m x 2.00 x 1.5= 450 cum
Taking 80% of above= 450 cum @ Rs. 47.00/cum = Rs. 21150.00
- 2) Blasting 20 % of Qty item (1) =90 Cum @ 354.00/Cum= Rs. 31860.00
Rs.53010.00
Or say Rs. 53100.00

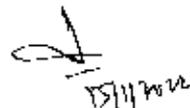
Revised Financial Outlay of the scheme for Management of Top soil prepared in compliance with the Condition No.2(xiv)(e) of the Stage-I approval accorded by the GoI, MoEF & CC, ERO, Bhubaneswar vide their Letter F.No 8-27/2016-FC, Dt. 05.04.2019 in respect of the Proposal for diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha for Iron Ore mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

(Wage Rate @ Rs.315/- per MD)

Sl No.	Description of the work	Funds Required
1	Virgin forest area from where top soil can be collected. Stripping cost 0.5ha/hr@ 1800.00. Therefore 354.2462 ha cost=708.4924 hrs Total 708.4924 hrs x Rs. 1800/-=12,75,286.32 Loading & transporting cost from the site to top soil stockpiles comes to be : 309000 x (tonnage factor)1.5= 4,63,500 ton 463500 ton x Rs. 36/- (Loading & Transportation @ Rs. 35/ton) = Rs. 1,66,86,000/- Cost of leveling with 4800 manpower @315/- Rs. 315.00 x 4800=Rs. 15,12,000/-	Rs. 1,94,73,286.32
2	Cost. for sowing of grass seeds over 1.5 ha @Rs 26095.00/-ha (Annexure-I).	Rs. 39142.50
3	Maintenance of grass seed @ (3 man days weekly for period of six month)Total 72 man days for six months 72 x Rs. 315.00= 22680.00	Rs. 22680.00
4	Retaining wall over a length of 150 meters (Annexure-II)	5,91,900.00
5	Garand drain over a length of 150 meters (Annexure-III)	59,300.00
	Sub-total	Rs. 2,01,86,308.82
3	Inspection, monitoring & evaluation @15% of the total project cost	Rs. 30,27,946.32
	Total	Rs. 2,32,14,255.14
4	Price escalation @20%	Rs. 46,42,851.03
	Grand Total	Rs. 2,78,57,106.17 or say Rs. 2,78,57,200.00

(Rupees two crore seventy-eight lakh fifty-seven thousand two hundred) only

Technically Approved



Regional Chief Conservator of Forests,
Rourkela Circle

Annexure-I

Estimate for sowing of grass seeds per ha.

Cost of broadcasting of grass seeds per ha. Labour rate Rs.311.00/- 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	315.00/- Labour	945.00
2	Adding FYM and good earth	2 TL FYM 2Fl. Good earth	500/TL FYM 500/TL Good earth	2000.00
3	Cost of grass seed 500 Kg/per ha		40/Kg	20000.00
4	Broad casting	10 nos	315.00/-Labour	3150.00
			Total	26095.00

Annexure-II

- 1) E/W excavation by mechanized means
Qty 150m x 2m x 0.3 = 90 Cum
Taking Qty 80% = 72 Cum @ Rs. 66.39 = Rs. 4780.08
- 2) Blasting
Taking 20 % of Qty item (1) = 18 cum @ Rs. 430.26 = Rs. 7744.68
- 3) Providing crate boulder
Bottom layer 150 m x 1.5m x 1.00 = 225 cum
Second layer 150 m x 1.0 m x 1.00 = 150 cum
375 cum
@Rs. 1544.94/cum = Rs. 5,79,352.50
Rs. 5,91,877.26
Say Rs. 5,91,900.00

Annexure-III

Excavation of earthen drain (Garland drain) near proposed Top Soil dump at Gandhamardan

- 1) E/W excavation by mechanical means
150 m x 2.00 x 1.5 = 450 cum
Taking 80% of above = 360 cum @ Rs. 57.13/cum = Rs. 20,566.80
- 2) Blasting 20 % of Qty item (1) = 90 Cum @ 430.26/Cum = Rs. 38,723.40
Rs. 59,290.20
Or say Rs. 59,300.00

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

AT

GANDHAMARDAN (BLOCK-A) 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 Additional condition No. 2 (xiv) (a) of the stage-I Forest Clearance granted by MoEF&CC, Govt.of India vide F.No 8-27/2016-FC, Dt. 05.04.2019)

(@ Rs. 311.00/- per manday)

APPROPRIATE MITIGATIVE MEASURES TO MINIMIZE SOIL EROSION AND CHOKING OF STREAMS

1. INTRODUCTION.

Government of India in the Ministry of Environment, Forest and Climate Change has granted Stage-I Forest Clearance vide letter F.No. 8-27/2016-FC, Dt. 05.04.2019 over 401.7824 ha in favour of Gandhamardan (Block-A) Iron Ore Mines of M/s Odisha Mining Corporation Limited. Condition no. (xiv) a. of Stage-I FC stipulates that

"Mitigative measures to minimize soil erosion and choking of stream shall be implemented within a period of three years with effect from the issue of Stage-II clearance 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 in 618.576 Ha. area of the said mining lease. Earlier a scheme on appropriate mitigative measures to minimize soil erosion and choking of streams has been approved by RCCF, Rourkela @ Rs. 286.30 per man day and @ Rs. 298.00 per man day to comply with the Stage-II approval over 41.2442 ha within Gandhamardan (Block-A) Iron Ore Mines. Labour Commissioner of Odisha vide letter no. 2816/LC dt. 25.05.2021 has revised the minimum wage rate to Rs. 311.00 per man day. In this context the scheme has been revised @ Rs. 311.00 per man day.

2. LOCATION OF THE ML AREA

Gandhamardan (Block-A) 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 618.576 Hectares (ha) is confined within latitudes: 21° 36' 08.58286" – 21° 37' 41.89734" North and Longitudes: 85° 29' 13.06230" – 85° 31' 16.78336" East located in the Survey of India Topo sheet bearing No. 73 G/6 and 73 G/10 in 1:50,000 scale. It is located at a distance of 12 KM from Keonjhar town to the west. The area exhibits an undulated topography with varying elevations from 620 m to 1009 m above Mean Sea Level (AMSL). It is the southward extension of the North-South trending Gandhamardan Pahar and is a prominent physiographic unit with highest elevation of 1061 m above mean sea level (AMSL) occurring towards north of this area. 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.

3. DRAINAGE

The lease area is centered around a ridge like escarpment-Gandhamardan Pahar, which runs in the north-south direction. The top of the ridge, has a peak at 1009 mRL. The bottom of the escarpment is at about 620 mRL. A number of gullies lead down from the top of the escarpment on both the eastern and western slopes.

4. 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.

5. OBJECTIVE OF THE SCHEME:

The objectives of the proposed scheme are as follows:

1. To meet the requirement of condition No. 4 vii (a) of the Stage – II approval of GoI, 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.

6. 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 few seasonal stream inside the M.L boundary. However, due to mining activities in future, there is chance of heavy runoff with silts and sediments during monsoon. To minimize the hazard as well as to reduce the flow velocity of water flow 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 choking of natural stream flow.

7. 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

As the area will be back-filled for reclamation, there will be very small overburden dump. Due to want of suitable area, there is no scope 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, reducing run-off and consequently, reducing soil erosion.

a) Construction of Loose Boulder Structure: The Uscr Agency has planned to construct 200 running metres of loose boulder structure across the proposed garland drain. 400 Running Metres of Loose Boulder Check Dams will be constructed 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: 120 running metres of garland drain will be constructed around Dump and along the haul road. The work has been included in a separate scheme prepared as per condition no. 4 vii(d) stipulated in Stage-II approval. Hence extra fund is not required for the work.

c) Terracing of OB Dump Slope: It is proposed to construct berm & terraces 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.

d) 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 dump is 347mt. The work has been included in a separate scheme prepared as per condition no. 4 (vii) (d) stipulated in Stage-I approval. Hence extra fund is not required for the work in this scheme.

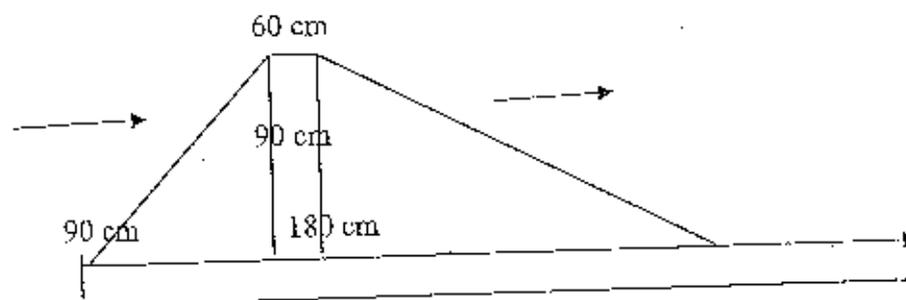
8. Execution of work: Only Loose Boulder Check Dams will be constructed over a total length of 600 mtrs under this scheme.

Loose Boulder Check Dams in gullies

Loose Boulder Check Dams should be constructed on the following principles: -

- Height of the dam should be the height of the bank or 90 cm whichever is higher.
- 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:

Foundation 4.5 mtr x 0.25 mtr = 1.125 sq.mtr

Super structure (3.3m x 0.6 m)/2 x 0.9m= 1.755 sq.mtr

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

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.

9. 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.

10. 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.

11. REQUIREMENT OF FUNDS

The total cost of the implementation of mitigative measures will be Rs. 26,49,600.00 (Rupees twenty six lakh forty nine thousand six hundred) only for implementation of the above mitigation measures, the above expenditure will be made over the next ten years period. Therefore, budget provision of 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.3200.00 per running mtr	600 running mtr	19,20,000.00
	Inspection, monitoring and evaluation @15% of the total project cost		2,88,000.00
	Total		22,08,000.00
	Escalation cost 20%		4,41,600.00
	Grand Total		26,49,600.00

(Rupees twenty six lakh forty nine thousand six hundred) only

Technically Approved

29/7/2019

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	311.00	13373.00
Mulia			267.46
2% sundries and T & P etc.	Total		13640.46
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	507.96	507.96
Mason (Special)	0.17	461.00	78.37
Stone packer	0.35	351.00	122.85
Mulia	1.04	311.00	323.44
2% sundries, T & P etc.			20.65
	Total		1053.27

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	200.00	200.00
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 $4.5 \text{ mtr} \times 0.25 \text{ mtr} = 1.125 \text{ sq.m}$			
Super structure $(3.30 \times 0.60) / 2 \times 0.9 \text{ m} = 1.755 \text{ sq.m}$			
$1.755 \text{ sq. mtr} + 1.125 \text{ sq.mtr} = 2.88 \text{ sq.mtr}$			
Volume = $2.88 \text{ sq.mtr} \times 2.5 \text{ mtr} = 7.2 \text{ cu.m}$	7.2 cu.m	1053.27	7583.54
Total			7783.54

Cost per running metre of L.B.C.D of 90 cm height = Rs 7783.54/2.5 = Rs. 3113.42 or say Rs.3200/-

Revised Financial Outlay of the scheme for appropriate mitigative measures to minimize soil erosion and choking of streams prepared in compliance with the Condition No.2(xiv)(a) of the Stage-I approval accorded by the GoI, MoEF & CC, ERO, Bhubaneswar vide their Letter F.No 8-27/2016-FC, Dt. 05.04.2019 in respect of the Proposal for diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha for Iron Ore mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

(Wage Rate @ Rs.315/- per MD)

Sl. No.	Particulars of interventions	Quantity	Financial involvement (Rs)
1	Loose Boulder Check Dams @ Rs.3200.00 per running mtr	600 running mtr	19,20,000.00
2	Inspection, monitoring and evaluation @15% of the total project cost		2,88,000.00
Total			22,08,000.00
Escalation cost 20%			4,41,600.00
Grand Total			26,49,600.00

(Rupees Twenty-six lakh forty-nine thousand six hundred) only

Technically Approved

Regional Chief Conservator of Forests,
Rourkela Circle

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	311.00	13373.00
Mulia			267.46
2% sundries and T & P etc.	Total		13640.46
Rough stone dry packing in aprons and revetments with hard granite stones (15 to 30 cm size) per cum	1	507.96	507.96
Granite broken stone 1 cum.	0.17	461.00	78.37
Mason (Special)	0.35	351.00	122.85
Stone packer	1.04	311.00	323.44
Mulia			20.65
2% sundries, T & P etc.	Total		1053.27

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	200.00	200.00
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 $4.5 \text{ mtr} \times 0.25 \text{ mtr} = 1.125 \text{ sq.m}$ Super structure $(3.3 \text{ mtr} \times 0.6 \text{ mtr}) / 2 \times 0.9 \text{ mtr} = 1.755 \text{ sq.m}$ $1.755 \text{ sq. mtr} + 1.125 \text{ sq. mtr} = 2.88 \text{ sq. mtr}$ Volume = $2.88 \text{ sq. mtr} \times 2.5 \text{ mtr} = 7.2 \text{ cu.m}$	7.2 cu.m	1053.27	583.54
Total			7783.54

Cost per running metre of L.B.C.D of 90 cm height = Rs 7783.54/2.5 = Rs. 3113.42 or say Rs 3200

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
GANDHAMARDAN (BLOCK-A) 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. 2 (xiv) b of the stage-I Forest Clearance granted by MoEF & CC, Govt. of India vide
F.No. 8-27/2016-FC dt 05.04.2019)

{@ Rs. 311.00/- per manday}

**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:-

Government of India in the Ministry of Environment, Forest and Climate Change has granted Stage-I Forest Clearance vide letter F.No. 8-27/2016-FC, Dt. 05.04.2019 over 401.7824 ha in favour of Gandhamardan (Block-A) Iron Ore Mines of M/s Odisha Mining Corporation Limited. Condition no. (xiv) b. of Stage-I FC stipulates that

“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 with this condition, a comprehensive scheme over 2.161 ha is prepared for implementation of the same.

Plantation will be taken up over 2.161 Ha. in ANR mode @ 400 plants/Ha. The cost estimate for this plantation calculated as per cost norm for ANR mode @ 400 plants per hectare @ Rs. 311.00/Manday is enclosed as **Annexure-I**. Similarly sowing of seeds will be carried out over 1.5 ha in the gullied exposed area. The financial outlay for the sowing of seeds is enclosed as **Annexure-II**. Earlier a scheme on planting adequate drought hardy plant species and sowing of seeds has been approved by RCCF, Rourkela @ Rs. 286.30 per man day and @ Rs. 298.00 to comply with the Stage-II approval over 41.2442 ha within Gandhamardan (Block-A) Iron Ore Mines. Labour Commissioner of Odisha vide letter no. 2816/LC dt. 25.05.2021 has revised the minimum wage rate to Rs. 311.00 per man day. In this context the scheme has been revised @ Rs. 311.00 per man day.

CHAPTER- II

AGENCY RESPONSIBLE FOR PLANTATION OVER 2.161 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. Budgetary provision of 15% of the total project cost has been earmarked on this score.

CHAPTER- III

DETAILS OF WORK SCHEDULE PROPOSED OVER 2.161 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.	<i>Syzygium cumini</i> (Jamun)
2.	<i>Adina cordifolia</i> (Kuruma)
3.	<i>Anogeissus latifolia</i> (Dhaura)
4.	<i>Dalbergia sissoo</i> (Sissoo)
5.	<i>Azadirachta indica</i> (Neem)
6.	<i>Gmelina arborea</i> (Gambar)
7.	<i>Terminalia chebula</i> (Harida)
8.	<i>Pongamia pinnata</i> (Karanj)

9.	<i>Acacia catechu</i> (Khair)
10.	<i>Embllica officinalis</i> (Amla)
11.	<i>Mimusops elengi</i> (Baula)
12.	<i>Lannea coromandelica</i> (Moi)
13.	<i>Albizia procera</i> (Siris)
14.	<i>Anogeissus acuminata</i> (Phasi)
15.	<i>Dendrocalamus strictus</i> (Bamboo)
16.	<i>Alstonia scholaris</i> (Chhatian)

B. PRE-PLANTING OPERATION

B(1)-RAISING OF PLANTATION STOCK- NURSERY-

Nursery will be raised including seedlings for 10% casualty replacement i.e. 440 seedlings per hectare will be raised.

B(10)-SURVEY, DEMARCATION & PILLAR POSTING, GPS READING WITH MAPPING-

The planting area has been surveyed and has been demarcated. A map in the scale of 1:8000 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.

CHAPTER-IV

DETAILS OF WORK SCHEDULE PROPOSED FOR SOWING OF SEEDS OVER 1.5 HA

In non-mineralized area there is existence of very thin layers of top soil say 5 cm to 10 cm. Over 1.5 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.

CHAPTER-V

REQUIREMENT OF FUNDS:

For implementation of all prescriptions outlined above, Rs.10, 40,800/- (Rupees ten lakh forty thousand eight hundred) only will be required as detailed below.

1.	Tall tree plantation for 1000 saplings (one year six months old) with 10 years maintenance amounting to Rs. 909643.34/- Total Expenditure for 1000 plants= Rs. 909643.34/- (Urban plantation cost norm) Expenditure per plant= Rs. 909.64/- Expenditure for 865 plants (865 x 909.64/-)= Rs. 7,86,838.60	Rs.	7,86,838.60
2.	Bamboo twigs continuous fencing @ Rs. 205.80/- per Rmt for 200 Rmt including maintenance to be carried out in Strategic lengths:- Expenditure for 865 plants (Rs. 207.10/- x 200 rmt) = Rs. 41420/-	Rs.-	41420.00/-

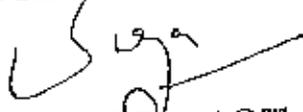
3	Sowing of seeds over 1.5 ha on L.S. (26043/- per ha)	Rs:-	39064.50/-
	TOTAL PLANTATION COST :-	Rs:-	867323.10
4	Add 20% for escalation	Rs:-	173464.62
	Total Plantation cost :-	Rs:-	10,40,787.72
			Or Say
			10,40,800.00

(Rupees ten lakh forty thousand eight hundred) only.

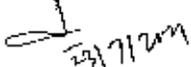
CHAPTER-VI

PROVISION OF FUNDS AND FUND UTILIZATION

Rs. 10,40,800/- (Rupees ten lakh forty thousand eight hundred) only utilized by the user agency M/s OMC Ltd on approval of the scheme and the funds will be utilized for raising plantation and cost of sowing of seeds over 2.161 ha and 1.5 ha respectively.


Divisional Forest Officer,
Keonjhar Division

Technically Approved


29/7/2019
Regional Chief Conservator of Forests
Rourkela Circle

COST NORM FOR URBAN PLANTATION FOR 1000.SAPLINGS.
 (Tall seedling plantation of One year Six months old)
 (Labour cost @ Rs. 311.00/- per manday)

Avenue Plantation: 4m x 4m

Block Plantation: 2.5m x 2.5m

Sl. No.	Item of Works	Preferable Period of Execution	Labour in Mandays	Labour Cost	Material Cost	Total Cost in
PREVIOUS YEAR (ADVANCE WORK) NURSERY RAISING						
1	Nursery Cost (18 month Old Seedlings) @Rs.34.84/- part (Rs.8.68 to be released) for 1100 seedlings (1000+100) (Nov to March)	Nov-March	28.5	8863.50	1568	10431.50
	TOTAL.		28.5	8863.50	1568	10431.50
2	Monitoring & Supervision charge 5% of the total cost		28.5	8863.50	1568	10953.07
	GRAND TOTAL					521.57
0TH YEAR OPERATION						
1	Nursery Cost (1 yr 6 months old seedlings) part @ Rs.34.84 per seedling (Rs22.14 to be released) for 1100 seedlings 1010.+101	April - March	71	22081	4474	26555
	TOTAL		71	22081	4474	26555
2	Monitoring & Supervision charge 5% of the total cost		71	22081	4474	27882.75
	GRAND TOTAL					1327.75
1ST YEAR OPERATION						
1	Nursery Cost (6 months old seedling) balance @ Rs.4.02 for 1100 seedling	April-June	14.5	4509.5	362	4871.50
2	Alignment & stacking at 4M spacing including clearance sites in avenue & 2.5m x 2.5m in case of block plantation	April-May	15	4665	0	4665
3	Excavation of pits- 45cmx45cmx45cm in hard soil with vertical cut edges to make an uniform cube& heaping the excavated soil out side the pits.	May-June	52	16172	0	16172
	Refilling of pits with excavated soil after breaking the clouds completely	June	8	2488	0	2488
5	Carriage and transport of saplings from Nursery site to plantation site over an average lead of 10kms @ Rs.6 per seedling for 1100 seedlings	July	0	0	6600	6600
	Cost of Fym 0.25 CFT per plant @ Rs.15 per cft for 250 cft		0	0	3750	3750
	Cost of Vermicompost 250 gm per plant @ Rf.20 per kg for 250 kg		0	0	5000	5000
	Cost of NPK 50 gm per plant as basal dose @ Rs.24 per kg for 50 kg.		0	0	1200	1200
	Cost of Granular Insecticide 10gm per plant @ Rs.80 per kg for 10 kg		0	0	800	800
7	Planting of sapling after carefully removing from sacks including mixing of Fym, Vermicompost, Granular Insecticide & Scooping the soil to required depth & pressing the soil around the plants.	July-Aug	25	7775	0	7775
8	Cost of chemical fertilizer (Urea/DAP/NPK etc.)		0	0	1200	1200
9	1st weeding around the plant to a radius of 45 cm, application of fertilizer	August	25	7775	0	7775
10	2nd weeding around the plant to a radius of 50 cms	September	20	6220	0	6220
11	Soil working around 0.5 Mt radius of the plant & application of fertilizer, mulching with available materials	Sept-Oct	32	9952	0	9952

Sl. No.	Item of Wails	Preferable Period of Execution	Labour in Man-days	Labour Cost	Material Cost	total Cost in
12	Watering for 5 months, 10 days per month from Nov. to March, including cost of water, labour & Transportation through tractor/tanker @Rs.84 per seedling for 1000 seedlings	November-March	0	0	84000	84000
13	Watch & ward for 9 Months from July to March, 270 Days.	July-March	140	43540	0	43540
14	Contingency Expenditure		0	0	455	455
	TOTAL		331.5	103096.5	103367	206463.50
15	Monitoring & Supervision charge 5% of the total cost		331.5	103096.5	103367	216786.67
	GRAND TOTAL					10323.17
2ND YEAR OPERATION						
1	Cost of sapling - 1 yr & 6 months old for casualty replacement @ Rs.34.84 per seedling for 100 seedlings		0	0	3484	3484
2	Carriage and transport of saplings from Nursery site to plantation site over an average lead of 10kms @ Rs.6 per seedling for 100 seedlings	July	0	0	600	600
3	Replacement of casualty after reopening, the pits & planting of sapling 100 nos. With application of FYM, Vermicompost and granular insecticides	July-Aug	4	1244.00	0	1244.00
4(a)	Cost of FYM 0.25 cft per plant @ Rs.15 per cft for 25 cft for 100 plants.		0	0	375	375
4(b)	Cost of Granular Insecticide 10gm per plant @ Rs.80 per kg for 1 kg		0	0	80	80
4(c)	Cost of NPK 50 gm per plant as basal dose @ Rs.24 per kg for 5 kg		0	0	120	120
4(d)	Cost of Vermicompost 250 gm per plant @ Rs.20 per kg for 25 kg		0	0	500	500
	Cost of chemical fertilizer (Urea/DAP/NTK etc.)				1200	1200
5	1st weeding around the plant to a radius of 30 cm & application of fertilizer	August	20	6220	0	6220
6	Soil working around 0.5MT radius & application of fertilizer, Moisture conservation & mulching	August-Sept	24	7464	0	7464
7	2nd weeding around the plant to radius of 0.5 MT.	Oct-Nov	16	4976	0	4976
8	Watering for eight months 5 days per month including cost of water, labour & transportation through tractor/ tankers. (April to June & Nov. to March) @ Rs.67.20 per seedling for 1000 seedlings	April-June Nov-March	0	0	67200	67200
9	Watch & ward for 12 months from April. to March (365 days)	April-Mar	186	57846	0	57846
10	Contingency Expenditure		0	0	1380	1380
	TOTAL.		250	77750	74939	152689
11	Monitoring & Supervision charge 5% of the total cost		250	77750	74939	160323.45
	Grand Total					7634.45
3RD YEAR MAINTENANCE						
1	Weeding, Soil working & Manuring	Sept-Oct	20	6220	0	6220
2	Cost of chemical fertilizer (Urea/DAP/NPK etc.)		0	0	1200	1200
3	Watch & ward for 12 months from April to March, 365 Days	April-Mar	186	57846	0	57846
	TOTAL.		206	64066	1200	65266
4	Monitoring & Supervision charge 5% of the total cost		206	64066	1200	3263.30
	GRAND TOTAL					68529.30
4TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	57846		57846
	TOTAL		186	57846	0	57846
2	Monitoring & Supervision charge 5% of the total cost		186	57846	0	2892.30
	GRAND TOTAL					60738.30

Sl No	Item of Works	Preferable Period of Execution	Labour in Mandays	Labour Cost	Material Cost	Total Cost in
5TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	57846		57846
	TOTAL.		186	57846	0	57846
2	Monitoring & Supervision charge 5% of the total cost					2892.30
	GRAND TOTAL		186	57846	0	60738.30
6TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	57846		57846
	TOTAL.		186	57846	0	57846
2	Monitoring & Supervision charge 5% of the total cost					2892.30
	GRAND TOTAL		186	186	0	60738.30
7TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	57846		57846
	TOTAL.		186	57846	0	57846
2	Monitoring & Supervision charge 5% of the total cost					2892.30
	GRAND TOTAL		186	186	0	60738.30
8TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	57846		57846
	TOTAL.		186	57846	0	57846
2	Monitoring & Supervision charge 5% of the total cost					2892.30
	GRAND TOTAL		186	186	0	60738.30
9TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	57846		57846
	TOTAL.		186	57846	0	57846
2	Monitoring & Supervision charge 5% of the total cost					2892.30
	GRAND TOTAL		186	186	0	60738.30
10TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	57846		57846
	TOTAL.		186	57846	0	57846
2	Monitoring & Supervision charge 5% of the total cost					2892.30
	GRAND TOTAL		186	186	0	60738.30
ABSTRACT FOR PLANTATION OF 1000 SAPLINGS						
Sl. No.	Year of operation	No. Person Day	Labour cost @ Rs. 311/- per day	Material cost (Rs.)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs.)
1	Previous Year	28.5	8863.50	1568	521.57	10953.07
2	0TH YEAR PLANTING	71	22081	4474	1327.75	27882.75
3	1ST YEAR PLANTING	331.5	103096.5	103367	10323.17	216786.67
4	2ND YEAR MAINTENANCE	250	77750	74939	7634.45	160323.45
5	3RD YEAR MAINTENANCE	206	64066	1200	3263.30	68529.30
6	4TH YEAR MAINTENANCE	186	57846	0	2892.30	60738.30
7	5th YEAR MAINTENANCE	186	57846	0	2892.30	60738.30
8	6th YEAR MAINTENANCE	186	57846	0	2892.30	60738.30
9	7th YEAR MAINTENANCE	186	57846	0	2892.30	60738.30
10	8th YEAR MAINTENANCE	186	57846	0	2892.30	60738.30
11	9th YEAR MAINTENANCE	186	57846	0	2892.30	60738.30
12	10th YEAR MAINTENANCE	186	57846	0	2892.30	60738.30
	Total	2189.00	680779.00	185548	43316.34	909643.34
Bamboo twigs continuous fencing @ Rs.207.10 per Rmt including maintenance is extra to be carried out.						

**BAMBOO TWIGS CONTINUOUS FENCING COST NORM FOR BLOCK OR
MULTIROW AVENUE PLANTATION (UNIT- 10 RMT)**

Sl. No	Item/ Description	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
1	Cost of 6 bamboo poles-equivalent to one long bamboo @Rs.150/-	0	0	150	150
2	Cost of bamboo twigs 1/2 cartload of approximately 2m height @ of Rs.700/- per cartload	0	0	350	350
3	Cost of 2 nos of split bamboo @ Rs.50/- per whole piece	0	0	100	100
4	Binding GI wire -120ft @Rs 0.50 per ft	0	0	60	60
5	Transportation cost @Rs. 10 per rmt	0	0	100	100
6	Cost of Sand & Chloropyriphos			100	100
7	Labour Cost for digging of 30 cm deep holes by crowbar at a distance of 30 cms over 10 rmts length, Putting Bamboo Twigs inside the holes and tinc with help of split bamboo and binding GI wire, including application mixture of Sand and Chloropyriphos	1	311.00	0	311.00
TOTAL (Planting Year)		1	311.00	860	1171.00
Cost per Rmt= Rs.117.10/-					
Repair and maintenance of fence per rmt in 2nd Year					Rs.40
Repair and maintenance of fence per rmt in 3rd Year					Rs.50
Materials required (10 Running Meter)					
1	Bamboo Poles (Bambusa vulgaris) each of 2.1 m long	6 pieces (1 long bamboo)			
2	Bamboo twigs	1/2 cartload			
3	Split Bamboo(Dendrocalamus strictus)- each 10 m long	4 pieces (or 2 whole pieces)			
4	Binding GI Wire	120 rft			
5	Sand	7 cft			
6	Chloropyriphos	0.25 kg			

Estimate for sowing of grass seeds per ha.

Cost of broadcasting of grass seeds per ha. Labour rate Rs.311.00/- 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	311.00/- Labour	933.00
2	Adding FYM and good earth	2 TL FYM	500/TL FYM	2000.00
		2TL Good earth	500/TL Good earth	
3	Cost of grass seed 500 Kg/per ha		40/Kg	20000.00
4	Broad casting	10 nos	311.00/-Labour	3110.00
			Total	26043.00

Revised Financial Outlay of the scheme for planting adequate drought hardy plant species and sowing of seeds in appropriate area within the mining lease area to arrest soil erosion prepared in compliance with the Condition No.2(xiv)(b) of the Stage-I approval accorded by the GoI, MoEF & CC, ERO, Bhubaneswar vide their Letter F.No 8-27/2016-FC, Dt. 05.04.2019 in respect of the Proposal for diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha for Iron Ore mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

(Wage Rate @ Rs.315/- per MD)

1.	Tall tree plantation for 1000 saplings (one year six months old) with 10 years maintenance amounting to Rs. 918837.15/- Total Expenditure for 1000 plants= Rs. 918837.15/- (Urban plantation cost norm) Expenditure per plant= Rs. 918.84/- Expenditure for 865 plants (865 x 918.84/-)= Rs. 7,94,796.60	Rs:-	7,94,796.60
2	Bamboo twigs continuous fencing @ Rs. 207.50/- per Rmt for 200 Rmt including maintenance to be carried out in Strategic lengths:- Expenditure for 865 plants (Rs. 207.50/- x 200 rmt) = Rs. 41500/-	Rs.-	41500.00/-
3	Sowing of seeds over 1.5 ha on L.S. (26095/- per ha)	Rs:-	39142.50/-
	TOTAL COST :-	Rs:-	875439.10
4	Add 20% for escalation	Rs:-	1,75,087.82
	Total Plantation cost :-	Rs:-	10,50,526.92 Or Say 10,50,600.00

(Rupees ten lakh fifty thousand six hundred) only

Technically Approved



Regional Chief Conservator of Forests,
Rourkela Circle

COST NORM FOR URBAN PLANTATION FOR 1000 SAPLINGS

(Tall seedling plantation of One year Six months old)

(Labour cost @ ₹ 315/- per manday)

Avenue Plantation: 4m x 4m

Block Plantation: 2.5m x 2.5m

Sl.	Item of Works	Preferable Period of Execution	Labour in Mandays	Labour Cost (₹)	Material Cost (₹)	Total Cost in (₹)
PREVIOUS YEAR (ADVANCE WORK) NURSERY RAISING						
1	Nursery Cost (18 month Old Seedlings) @ Rs.34.84/- part (Rs.8.68 to be released) for 1100 seedlings (1000+100) (Nov to March)	Nov-March	28.5	8977.5	1668	10546
	TOTAL		28.5	8977.5	1668	10546.5
2	Monitoring & Supervision charge 5% of the total cost					527
	GRAND TOTAL		28.5	8977.5	1668	11073
0TH YEAR OPERATION						
1	Nursery Cost (1 yr 6 months old seedlings) part @ Rs.34.84 per seedling (Rs22.14 to be released) for 1100 seedlings (1000+100)	April-March	71	22365	4474	26839
	TOTAL		71	22365	4474	26839
2	Monitoring & Supervision charge 5% of the total cost					1342
	GRAND TOTAL		71	22365	4474	28181
1ST YEAR OPERATION						
1	Nursery Cost (6 months old seedling) balance @ Rs.4.02 for 1100 seedling	April-June	14.6	4567.5	362	4930
2	Alignment & stacking at 4M spacing including clearance sites in avenue & 2.5m x 2.5m in case of block plantation	April-May	15	4725	0	4725
3	Excavation of pits- 45cmx45cmx45cm in hard soil with vertical cut edges to make an uniform cube & heaping the excavated soil out side the pits.	May-June	52	16380	0	16380
4	Refilling of pits with excavated soil after breaking the clouds completely	June	8	2520	0	2520
5	Cartage and transport of saplings from Nursery site to plantation site over an average lead of 10kms @ Rs.6 per seedling for 1100 seedlings	July	0	0	6600	6600
6(a)	Cost of Fym 0.25 CFT per plant @ Rs 15 per cft for 250 cft		0	0	3750	3750
6(b)	Cost of Vermicompost 250 gm per plant @ Rs.20 per kg for 250 kg		0	0	5000	5000
6(c)	Cost of NPK 50 gm per plant as basal dose @ Rs.24 per kg for 50 kg		0	0	1200	1200
6(d)	Cost of Granular Insecticide 10gm per plant @ Rs.80 per kg for 10 kg		0	0	800	800
7	Planting of sapling after carefully removing from sacks including mixing of Fym, Vermicompost, Granular Insecticide & Scooping the soil to required depth & pressing the soil around the plants.	July-Aug	25	7875	0	7875
8	Cost of chemical fertilizer (Urea/DAP/NPK etc.)		0	0	1200	1200
9	1st weeding around the plant to a radius of 45 cm, application of fertilizer	August	25	7875	0	7875
10	2nd weeding around the plant to a radius of 50 cms	September	20	6300	0	6300
11	Soil working around 0.5 Mt radius of the plant & application of fertilizer, mulching with available materials	Sept-Oct	32	10080	0	10080

12	Watering for 5 months, 10 days per month- from Nov. to March, including cost of water, labour & Transportation through tractor/tanker @ Rs. 84 per seedling for 1000 seedlings	November-March	0	0	84000	84000	
		July-March	140	44100	0	44100	
13	Watch & ward for 9 months from July to March. 270 Days.		0	0	455	455	
14	Contingency Expenditure		331.5	104423	103367	207790	
	TOTAL.					10369	
15	Monitoring & Supervision charge 5% of the total cost		331.5	104422.5	103367	218179	
	GRAND TOTAL						
2ND YEAR OPERATION							
			0	0	3484	3484	
1	Cost of sapling - 1 yr & 6 months old for casual replacement @ Rs. 34.84 per seedling for 100 seedlings	July	0	0	600	600	
2	Carrriage and transport of saplings from Nursery site to plantation site over an average lead of 10kms @ Rs. 6 per seedling for 100 seedlings	July-Aug	4	1260	0	1260	
3	Replacement of casualty after reopening the pits & planting of sapling 100 nos. With application of FYM, Vermicompost and granular insecticides		0	0	375	375	
4	Cost of FYM 0.25 cft per plant @ Rs. 15 per cft for 25 cft for 100 plants		0	0	60	60	
4(b)	Cost of Granular Insecticide 10gm per plant @ Rs. 60 per kg for 1 kg		0	0	120	120	
4(c)	Cost of NPK 50 gm per plant as basal dose @ Rs. 24 per kg for 5 kg		0	0	500	500	
4(d)	Cost of Vermicompost 250 gm per plant @ Rs. 20 per kg for 25 kg		0	0	1200	1200	
4(e)	Cost of chemical fertilizer (Urea/DAP/NPK etc.)				0	6300	
5	1st weeding around the plant to a radius of 30 cm & application of fertilizer	August	20	6300	0	6300	
6	Soil working around 0.5MT radius & application of fertilizer, Moisture conservation & mulching	August-Sept	24	7560	0	7560	
7	2nd weeding around the plant to radius of 0.5 MT.	Oct-Nov	16	5040	0	5040	
8	Watering for eight months 5 days per month including cost of water, labour & transportation through tractor/ tankers. (April to June & Nov. to March) @ Rs 67.20 per seedling for 1000 seedlings	April-June Nov-March	0	0	87200	87200	
9	Watch & ward for 12 months from April to March (365 days)	April-Mar	186	58590	0	58590	
10	Contingency Expenditure		0	0	1380	1380	
	TOTAL.		250	78750.00	74939	153689	
11	Monitoring & Supervision charge 5% of the total cost		250	78750	74939	161373.45	
	Grand Total						
3RD YEAR MAINTENANCE							
1	Weeding Soil working & Manuring	Sept-Oct	20	6300	0	6300	
2	Cost of chemical fertilizer (Urea/DAP/NPK etc.)		0	0	1200	1200	
3	Watch & ward for 12 months from April to March. 365 Days.	April-Mar	186	58590	0	58590	
	TOTAL.		206	64890	1200	66090	
4	Monitoring & Supervision charge 5% of the total cost		206	64890	1200	3305	
	GRAND TOTAL					69394.5	
4TH YEAR MAINTENANCE							
1	Watch & ward for 12 months from April to March. 365 Days.	April-Mar	186	58590	0	58590	
	TOTAL.		186	58590	0	2930	
2	Monitoring & Supervision charge 5% of the total cost		186	58590	0	61520	
	GRAND TOTAL						

5TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	58590		58590
	TOTAL		186	58590	0	58590
2	Monitoring & Supervision charge 5% of the total cost					2930
	GRAND TOTAL		186	58590	0	61520
6TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	58590		58590
	TOTAL		186	58590	0	58590
2	Monitoring & Supervision charge 5% of the total cost					2930
	GRAND TOTAL		186	58590	0	61520
7TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	58590		58590
	TOTAL		186	58590	0	58590
2	Monitoring & Supervision charge 5% of the total cost					2930
	GRAND TOTAL		186	58590	0	61520
8TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	58590		58590
	TOTAL		186	58590	0	58590
2	Monitoring & Supervision charge 5% of the total cost					2930
	GRAND TOTAL		186	58590	0	61520
9TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	58590		58590
	TOTAL		186	58590	0	58590
2	Monitoring & Supervision charge 5% of the total cost					2930
	GRAND TOTAL		186	58590	0	61520
10TH YEAR MAINTENANCE						
1	Watch & ward for 12 months from April to March, 365 Days.	April-Mar	186	58590		58590
	TOTAL		186	58590	0	58590
2	Monitoring & Supervision charge 5% of the total cost					2930
	GRAND TOTAL		186	58590	0	61520
ABSTRACT FOR PLANTATION OF 1000 SAPLINGS						
Sl. No.	Year of operation	No. Person Day	Labour cost @ ₹ 315/- per day	Material cost (₹)	Monitoring & Supervision charge 5% of the total cost	Total cost in (₹)
1	Previous Year	28.5	8978	1508	527	11073
2	0TH YEAR PLANTING	71	22385	4474	1342	28181
3	1ST YEAR PLANTING	331.5	104423	103367	10389	218179
4	2ND YEAR MAINTENANCE	250	78750	74939	7664	161373
5	3RD YEAR MAINTENANCE	206	64890	1200	3305	69395
6	4TH YEAR MAINTENANCE	186	58590	0	2930	61520
7	5th YEAR MAINTENANCE	186	58590	0	2930	61520
8	6th YEAR MAINTENANCE	186	58590	0	2930	61520
9	7th YEAR MAINTENANCE	186	58590	0	2930	61520
10	8th YEAR MAINTENANCE	186	58590	0	2930	61520
11	9th YEAR MAINTENANCE	186	58590	0	2930	61520
12	10th YEAR MAINTENANCE	186	58590	0	2930	61520
	Total	2189	689535	185548	43754.15	918837.15

Bamboo/Bamboo twigs continuous fencing @ Rs.207.50 per Rmt including maintenance in extra to be carried out.

Annexure-II

**BAMBOO TWIGS CONTINUOUS FENCING COST NORM FOR BLOCK OR
MULTIROW AVENUE PLANTATION (UNIT- 10 RMT)**

Sl. No	Item/ Description	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
1	Cost of 6 bamboo poles-equivalent to one long bamboo @Rs.150/-	0	0	150	150
2	Cost of bamboo twigs 1/2 cartload of approximately 2m height @ of Rs.700/- per cartload	0	0	350	350
3	Cost of 2 nos of split bamboo @ Rs.50/- per whole piece	0	0	100	100
4	Binding GI wire -120ft @Rs 0.50 per ft	0	0	60	60
5	Transportation cost @Rs. 10 per rmt	0	0	100	100
6	Cost of Sand & Chloropyriphos			100	100
7	Labour Cost for digging of 30 cm deep holes by crowbar at a distance of 30 cms over 10 mts length. Putting Bamboo Twigs inside the holes and time with help of split bamboo and binding GI wire, including application mixture of Sand and Chloropyriphos	1	315.00	0	315.00
TOTAL (Planting Year)		1	315.00	860	1175.00
Cost per Rmt= Rs.117.50/-					
Repair and maintenance of fence per rmt in 2nd Year					Rs.40
Repair and maintenance of fence per rmt in 3rd Year					Rs.50
Materials required (10 Running Meter)					
1	Bamboo Poles (Bambusa vulgaris) each of 2.1 m long	6 pieces (1 long bamboo)			
2	Bamboo twigs	1/2 cartload			
3	Split Bamboo(Dendrocalamus strictus)- each 10 m long	4 pieces (or 2 whole pieces)			
4	Binding GI Wire	120 rft			
5	Sand	7 cft			
6	Chloropyriphos	0.25 kg			

Estimate for sowing of grass seeds per ha.

Cost of broadcasting of grass seeds per ha. Labour rate Rs.315.00/- 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	315.00/- Labour	945.00
2	Adding FYM and good earth	2 TL FYM 2TL Good earth	500/TL FYM 500/TL Good earth	2000.00
3	Cost of grass seed 500 Kg/per ha		40/Kg	20000.00
4	Broad casting	10 nos	315.00/- Labour	3150.00
			Total	26095.00

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

AT

GANDHAMARDAN (BLOCK-A) 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. 2 (xiv) (c) of the stage-I Forest Clearance granted by MoEF&CC, Govt.of India vide
F.No 8-27/2016-FC, Dt. 05.04.2019)

(@ Rs. 311/- per man day)

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

1. INTRODUCTION.

Government of India in the Ministry of Environment, Forest and Climate Change has granted Stage-I Forest Clearance vide letter F.No. 8-27/2016-FC, Dt. 05.04.2019 over 401.7824 ha in favour of Gandhamardan (Block-A) Iron Ore Mines of M/s Odisha Mining Corporation Limited. Condition no. (xiv) b. of Stage-I FC stipulates that

"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 618.576 Ha. area of the said mining lease. Earlier a scheme on Construction of check dams, retention toe walls to arrest sliding down of the excavated material along the contour has been approved by RCCF, Rourkela @ Rs. 286.30 per man day to comply with the Stage-II approval over 41.2442 ha within Gandhamardan (Block-A) Iron Ore Mines. Labour Commissioner of Odisha vide letter no. 2816/LC dt. 25.05.2021 has revised the minimum wage rate to Rs. 311.00 per man day. In this context the scheme has been revised @ Rs. 311.00 per man day.

2. OBJECTIVE OF THE SCHEME:

1. To meet the requirement of condition No. 2(vii) (c) of the Stage -II approval granted by MoEFCC, 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:

- (a) Propose to construct retaining wall and garland drain around the waste dumping site.
- (b) Propose to develop the dump by terracing method. The height of all the terraces will vary from 10 to 12 m and width being 6 to 12 m.

- (c) 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.
- (d) Propose to construct catch drain on the deep slope.
- (e) 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-inforced 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

- (i) It has been proposed to construct 347mtr 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. 11, 26,600.00 (Annexure-D). This will prevent pollution of water flowing in the nala adjoining to the villages.

(ii) It has also been proposed to dig out 120 meter long Garland drain inside the M.I. 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 39,100.00 (Annexure-II).

FINANCIAL FORECAST

Sl. No.	Particulars of interventions	Financial involvement (Rs)
1	Development of crated boulder masonry wall over a length of 347mtr (Annexure-I)	11,26,600.00
2	Excavation of garland drain over a length of 120mtr (Annexure-II).	39,100.00
3	Desiltation work of Garland drain, settling pond and check dam twice in a year (on lump sump)	27,200.00
4	Maintenance of retaining wall (on lump sump)	1,08,700.00
	Sub-Total:	13,01,600.00
	Inspection, monitoring and evaluation @15% of the total project cost	1,95,240.00
	Total	14,96,840.00
	Price escalation @20%	2,99,368.00
	Grand Total	17,96,208.00
		Or say
		17,96,300.00

(Rupees seventeen lakh ninety six thousand three hundred) only

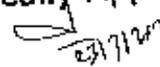
EXECUTIVE AGENCY

The work shall be taken up by the User Agency.



Divisional Forest Officer
Keonjhar Forest Division

Technically Approved


23/7/2019
Regional Chief Conservator of Forests
Rourkela Circle

Annexure-I

Development of crated boulder masonry near proposed OB dump

(Length of the wall = 347mtr.)

1) E/W excavation by mechanical means.

Qty. 347 m x 2m x 0.3 = 208.2 Cum

Taking Qty. 80% = 166.56Cum @ Rs. 54.70 = Rs. 9110.83

2) Blasting.

Taking 20% of Qty item (1) = 41.64Cum @ Rs. 354.00 = Rs. 14740.56

3) Providing crate boulder.

Bottom layer: 347m x 1.5m x 1.00 = 520.5 Cum

Second layer: 347m x 1.00m x 1.00m = 347 Cum

867.5 Cum

@ Rs. 1271.10/Cum = Rs. 1102679.25

Rs. 1126530.64

Say Rs. 11, 26,600.00

Annexure-II

Excavation of Earthen drain (Garland drain) near proposed OB dump at Gandhamardan
(Block-A) Iron Ore Mines

1) E/W excavation by mechanical means.

120 m x 2.00 x 1.5 = 360.00 Cum

Taking 80% of above = 288.00 Cum @ Rs. 47.00/Cum = Rs. 13536.00

2) Blasting. 20% of Item (1) = 72 Cum @ Rs. 354.00/Cum = Rs. 25488.00

Rs. 39024.00

Say Rs. 39,100.00

Revised Financial Outlay of the scheme for construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour prepared in compliance with the Condition No.2(xiv)(c) of the Stage-I approval accorded by the GoI, MoEF & CC, ERO, Bhubaneswar vide their Letter F.No 8-27/2016-FC, Dt. 05.04.2019 in respect of the Proposal for diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha for Iron Ore mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

(Wage Rate @ Rs.315/- per MD)

Sl. No	Particulars of interventions	Financial involvement (Rs)
1	Development of crated boulder masonry wall over a length of 347mtr (Annexure-I)	13,69,300.00
2	Excavation of garland drain over a length of 120mtr (Annexure-II)	47,500.00
3	Desiltation work of Gartland drain, settling pond and check dam twice in a year (on lump sump)	27,600.00
4	Maintenance of retaining wall (on lump sump)	1,10,100.00
	Sub-Total:	15,54,500.00
	Inspection, monitoring and evaluation @15% of the total project cost	2,33,175.00
	Total	17,87,675.00
	Price escalation @20%	3,57,535.00
	Grand Total	21,45,210.00
		Or say 21,45,300.00

(Rupees twenty-one lakh forty-five thousand three hundred) only

Technically Approved

Regional Chief Conservator of Forests,
Rourkela Circle

Annexure-I

Development of crated boulder masonry near proposed OB dump

(Length of the wall = 347mtr.)

1) F/W excavation by mechanical means.

Qty. 347 m x 2m x 0.3 = 208.2 Cum

Taking Qty. 80% = 166.56 Cum @ Rs 66.39 = Rs 11,057.97

2) Blasting.

Taking 20% of Qty item (1) = 41.64 Cum @ Rs. 430.26 = Rs. 17,916.03

3) Providing crate boulder.

Bottom layer: 347m x 1.5m x 1.00 = 520.5 Cum

Second layer: 347m x 1.00m x 1.00m = 347 Cum

867.5 Cum

@ Rs. 1544.94/Cum = Rs. 1,340,235.15

Rs. 13,69,209.10

Say Rs. 13,69,300.00

Annexure-II

Excavation of Earthen drain (Garland drain) near proposed OB dump at Gandhamardan (Block-A) Iron Ore Mines

1) F/W excavation by mechanical means.

120 m x 2.00 x 1.5 = 360.00 Cum

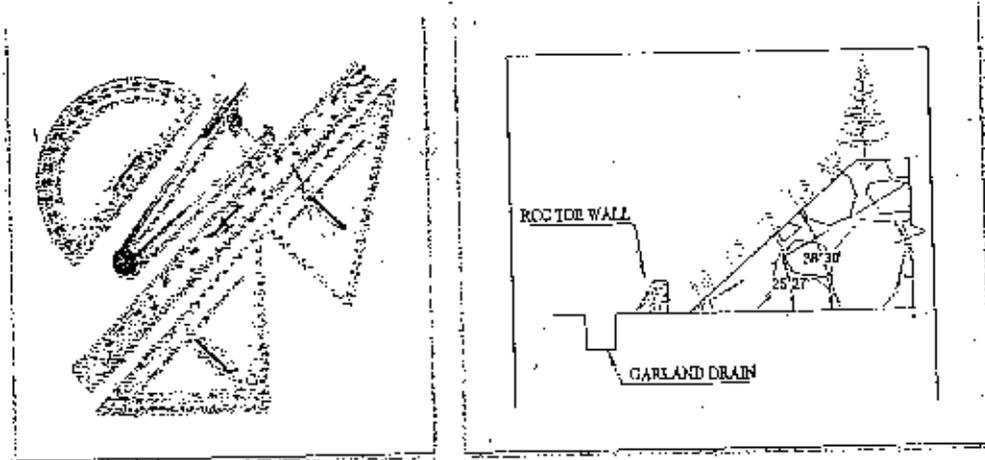
Taking 80% of above = 288.00 Cum @ Rs. 57.13/Cum = Rs. 16,453.44

2) Blasting, 20% of Item (1) = 72 Cum @ Rs. 430.26/Cum = Rs. 30,978.72

Rs. 47,432.16

Say Rs. 47,500.00

**SCHEME TO STABILIZE OVERBURDEN DUMP BY GRADING
& BENCHING IN GANDHAMARDAN (BLOCK-A)
IRON ORE MINES OF
M/S OMC LTD,
AGAINST DIVERSION OF 401.7824 HECTARE OF
FOREST LAND
IN
KEONJHAR FOREST DIVISION.**



Compliance to:

Condition no. 2 (xiv) d of the stage-I Forest Clearance granted by MoEF & CC, Govt. of India vide
F.No. 8-27/2016-FC dt 05.04.2019

(@ Rs. 311.00/- per manday)

SCHEME TO STABILIZE OVERBURDEN DUMP BY APPROPRIATE GRADING & BENCHING.

[As per Condition no. 2 (xiv) h of the stage-I Forest Clearance granted by MoEF & CC, Govt. of India vide
F.No. 8-27/2016-FC dt 05.04.2019]

1.0 Introduction

Government of India in the Ministry of Environment, Forest and Climate Change has granted Stage-I Forest Clearance vide letter F.No. 8-27/2016-FC, Dt. 05.04.2019 over 401.7824 ha in favour of Gandhamardan (Block-A) Iron Ore Mines of M/s Odisha Mining Corporation Limited.

Condition no. (xiv) b. of Stage-I FC stipulates that

“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 of the same in 618.576 ha. area of the said mining lease. Earlier a scheme to stabilize over burden dump has been approved by RCCP, Rourkela @ Rs. 286.30 per man day and @ Rs. 298.00 per man day to comply with the Stage-II approval over 41.2442 ha within Gandhamardan (Block-A) Iron Ore Mines. Labour Commissioner of Odisha vide letter no. 2816/LC dt. 25.05.2021 has revised the minimum wage rate to Rs. 311.00 per man day. In this context the scheme has been revised @ Rs. 311.00 per man day.

2.0 Present Scenario:

The Mining activities will be being carried out in accordance with the approved modified mining plan prepared by MECON Limited, Ranchi and approved by Regional Controller of Mines, Indian Bureau of Mines, Bhubaneswar.

Proved mineral reserve of the mine is 39.775 million tonnes.

Approximate sub-grade ore production 5.86%. However sub-grade ore will be stored temporarily.

Since the mine will be worked by progressively closing mined out area and reclamation by backfilling, requirement of space for dumping of overburden will be very less. About 10.4716 ha. area will be used for dumping overburden.

3.0 Salient points of waste management

- For the management of dump it is suggested to have terrace at every 20m height from the floor at same contour.
- Ultimate height 80m
- Inward slope is to be provided so that rain water will move towards dump side. It will prevent of 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 installed to collect rainwater and not allowing penetrating to inside the dump.
- Crated Boulder Retaining wall of 2m height (0.5m below ground + 1.5m above the ground) X 1.0m wide will be constructed around the dump.
- It aims to check any rolldown 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 15m x 10m x 1m 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.

(These are shown in the diagram)

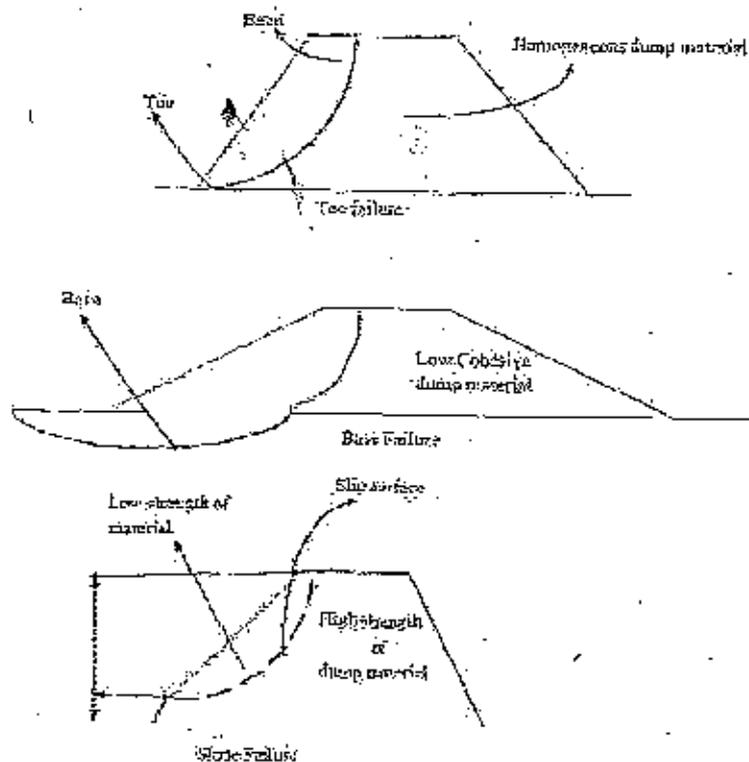


Figure 1 Dump failure line of slip.

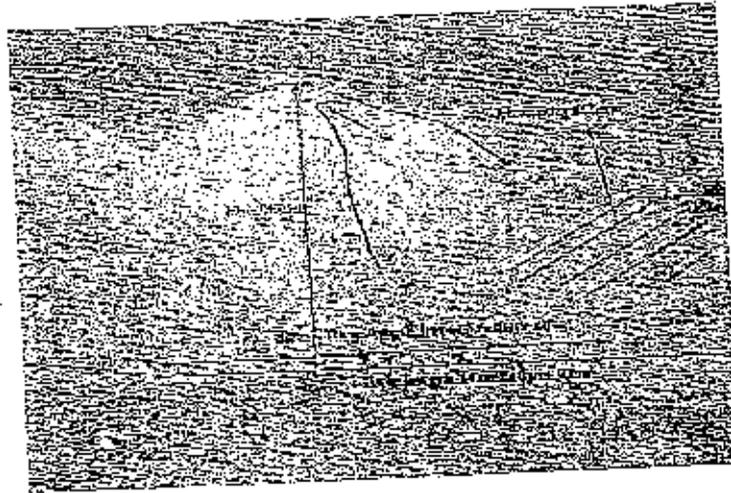


Figure 2 DUMP FAILURE SITUATION.

Reasons for failure.

- i. 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 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 Scam,
 - 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.

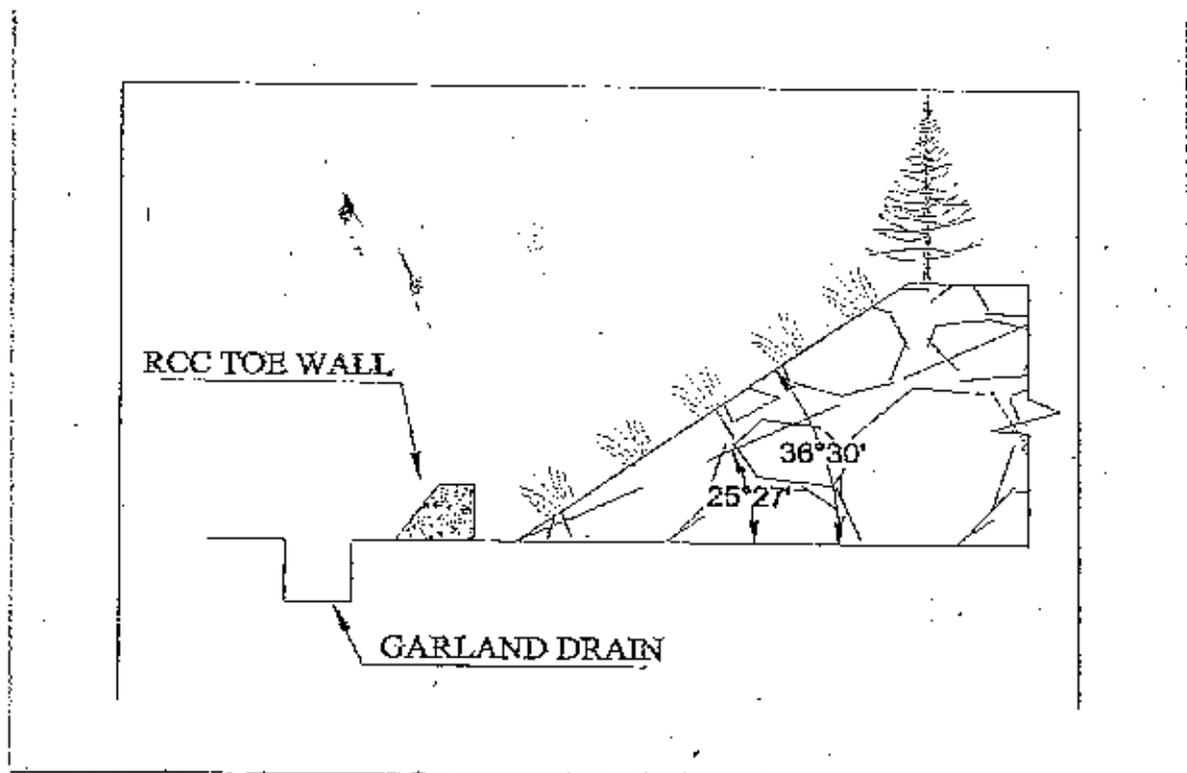
The average wind speed as noticed in post monsoon is 2.25m/s with a maximum speed of 6.13m/s. In winter the average speed is 1.31m/s with a maximum speed of 5.61m/s. This wind speed has a capacity to pick up heavy dust from dry surface of dump, ore stack & sub grade stack.

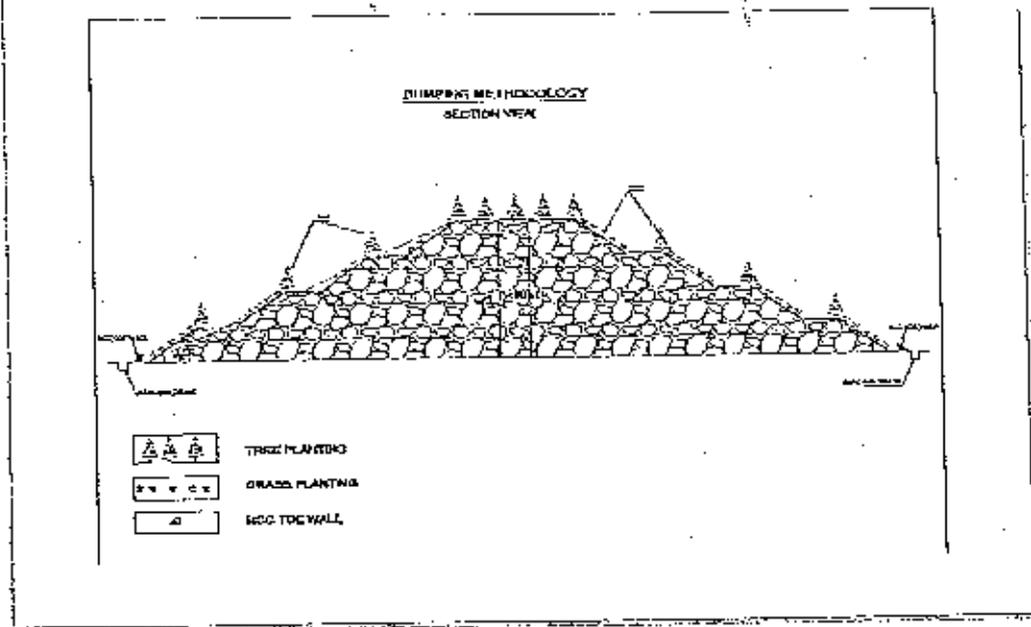
C. Loss of life & property.

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: 20m
- Number of Benches: 4
- Over all slope: $<28^{\circ}$.
- Slope of each terrace: $<28^{\circ}$.





Besides the above parameters while dumping the overburden it should be well compacted by using mechanical means.

Stabilization of Over Burden Dump:

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

4.0. 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.

5.0. Implementing Agency.

This prescription is to be implemented by the user agency.

6.0 Financial Forecast

The financial forecast for garland drain and retaining wall has not been proposed in this scheme as the same has been considered in the scheme prepared in compliance with condition no. 4vii (c). The financial forecast for scheme of "Stabilize the overburden dumps by appropriate grading/benching so as to ensure that the angles of repose at any given place is less than 28°" is given as below:

FINANCIAL FORECAST

Sl. No.	Particulars of interventions	Financial involvement (Rs)
1	Terracing of OB dump over a length of 100000 sqm @ Rs.343/sqm (Annexure-I)	3,43,00,000.00
2	Excavation of concrete drain of 600 cum over a slope length of 1000 mtr in every 50 meter within the slope of proposed OB dump (Annexure-II)	7,29,550.00
3	Block Plantation (@ 1600 plants/Ha) over 10.4716 ha of forest land @ Rs. 180171.07. (Annexure-III)	18,86,679.38
Sub-Total:		3,69,16,229.38
Inspection, monitoring and evaluation @15% of the total project cost		55,37,434.41
Total		4,24,53,663.79
Price escalation @20%		84,90,732.76
Grand Total		5,09,44,396.55
		Or Say
		5,09,44,400.00

(Rupees five crore nine lakhs forty four thousand four 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

1. Location- over burden dump- work efficiency of HEMM machine per hour-3.5 Sqm on the dump.
(Average height of the terrace-20 mt)
2. Rate of engagement of HEMM Machine Rs. 1200/hr
3. Terracing cost at OB dump/sqm- Rs. 1200/3.5=Rs. 343
4. In our OB dump average slope length=5000mtr
5. Average height of terrace 20 mt.
6. Total terrace area in sqm= 5000 x 20=100,000sqm

Excavation of earthen drain in every 50 meter within the slope of proposed OB dump

A: E/W Excavation by Mechanical Means

1. In our OB dump average slope length=5000mtr
2. Total no. of drain required within 5000 mtr slope length= 5000/50=100 nos.
3. Average height of terrace 20 mt.
4. E/W excavation by mechanical means for one drain= 20m x 1m x 1 m=20 Cum
5. Total volume to be excavated for 100 nos. of drain= 100 x 20=2000 cum
6. Taking Rs. 47.00/Cum, total cost for excavation of 2000 cum of earthen material= Rs. 94000.00/-.

B: Providing crate boulder

1. Crate boulder pitching within earthen drain: 2000 x 0.5 x 0.5= 500 Cum
 2. Considering Rs. 1271.10/Cum, the cost of boulder pitching within earthen drain=500 x 1271.10=635550.00
- Total Cost= 94000+635550=7,29,550.00

COST NORM FOR BLOCK PLANTATION @ 1600 PLANTS PER HECTARE (6 month old seedling)
WAGE RATE @ Rs 311.00/- per day

Sl. No	Items of work	Preferable Period of Execution	Labour in Mandays	labour cost (Rs)	Material cost (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	622.00	0	622.00
2	Site preparation	Nov/Dec	12	3732.00	0	3732.00
3	Alignment and stacking of pits	Jan/Feb	2	622.00	0	622.00
4	Digging of pits (30 cm cube)	Feb/Mar	40	12440	0	12440

5	Nursery cost (6 months old seedling) part @ Rs.12.43/- seedling (Rs.8.67 in 0th year + Rs.3.76 in 1st year) for 1760 seedlings (1600+160)	Jan-Mar	44	13684.0	2939	16623.00
	Total		100	31100	2939	34039.00
6	Monitoring & Supervision charge 5% of the total cost					1701.95
	Grand Total		100	31100	2939	35740.95
1ST YEAR/PLANTING YEAR						
7	Nursery cost (6 months old seedling) balance @ Rs.3.76 for 1760 seedlings	Apr-June	21.5	6686.50	593	7279.50
8	Fencing For an average of 250 meters/ha @ Rs.76.80/- per meter for bamboo twigs and bamboo thorn fencing	May/June	38	13818.00	8560	20378.00
9	Carriage & planting, Casualty Replacement and application of insecticides, manure etc.	Jul/Aug	21	6531.00	0	6531.00
10	Cost of insecticide and fertilizer (a)NPK @ 50 gms/plant as basal dose -80kg @ Rs.24/- per kg = Rs.1920.00 (b) Urea @ 70 gms/plant in two subsequent doses @ Rs.6/- per kg = Rs.672.00 (c) Granular insecticide (Thernet, Forate etc.) @ 5 gms/plant @ Rs.80/- per kg = Rs.640.00	July/Aug		0	3232	3232
11	1st weeding (complete weeding)	Aug/Sep	7	2177.00	0	2177.00
12	Manuring Urea 35 gm	Aug/Sep	5	1555.00	0	1555.00
13	2nd Weeding (complete weeding)	Sep/Oct	5	1555.00	0	1555.00
14	Soil working (50 cms. Radius around plants) & manuring Urea 35gms per plant	Sep/Oct	7	2177.00	0	2177.00
15	Soil conservation measures in the form of staggered trenches of size 2 m X 0.5 m X 0.5 m @ 30 nos per ha	Sep/Oct	10	3110.00	0	3110.00
16	Fire line tracing & inspection path	Feb/Mar	3	933.00	0	933.00
17	Watch & Ward	Aug-Mar	7	2177.00	0	2177.00
	Total		124.50	38719.50	12385	51104.50
18	Monitoring & Supervision charge 5% of the total cost					2555.22
	Grand Total		124.50	38719.50	12385	53659.72
2ND YEAR MAINTENANCE						
19	Casualty replacement (10%) with Nursery cost	Jul/Aug	4	1244.00	1988.00	3232.00
20	Weeding (complete weeding)	Sep/Oct	6	1866.00	0	1866.00
21	Cost of fertilizer (NPK @70 gms/plant) (Rs.24/-per kg & Insecticide @5 gms/plant for 160 plants 800 gms @ Rs.80/- per kg)	Sep/Oct		0	2752	2752.00
22	Repair and maintenance of Bamboo fence including material cost	May/June	20	6220	5080	11300.00
23	Soil working (50 cms. Radius around plants)	Oct/Nov	7	2177.00	0	2177.00
24	Application of fertilizer & insecticide	Sep/Oct	4	1244.00	0	1244.00
25	Fire line tracing (2 m. wide fire line over 400 m long)	Feb/Mar	3	933.00	0	933.00
26	Watch & Ward	Apr-Mar	15	4665	0	4665.00
	Total		59	18349	9821	28170.00
27	Monitoring & Supervision charge 5% of the total cost					1408.50

Grand Total			59	18349	9821	29578.50
3RD YEAR MAINTENANCE						
28	Weeding and application of fertilizer	Aug/Sep	7	2177.00	0	2177.00
29	Cost of fertilizer (NPK @ 50 gms/plant) @ Rs.24/-per kg			0	1920	1920.00
30	Repair and maintenance of Bamboo fence including material cost	May/June	20	6220.00	1000	7220.00
31	Soil working (50 cms. Radius around plants) & application of fertilizer	Oct/Nov	7	2177.00	0	2177.00
32	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	933.00	0	933.00
33	Watch & Ward	Apr-Mar	15	4665.00	0	4665.00
			52	16172.0	2920	19092.00
	Total					954.60
34	Monitoring & Supervision charge 5% of the total cost					
			52	16172.0	2920	20046.60
	Grand Total					
4TH YEAR MAINTENANCE						
35	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	933.00	0	933.00
36	Watch & Ward	Apr-Mar	15	4665.00	0	4665.00
			18	5598.00	0	5598.00
	Total					279.90
37	Monitoring & Supervision charge 5% of the total cost					
			18	5598.00	0	5877.90
	Grand Total					
5TH YEAR MAINTENANCE						
38	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	933.00	0	933.00
39	Watch & Ward	Apr-Mar	15	4665.00	0	4665.00
			18	5598.00	0	5598.00
	Total					279.90
40	Monitoring & Supervision charge 5% of the total cost					
			18	5598.00	0	5877.90
	Grand Total					
6TH YEAR MAINTENANCE						
41	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	933.00	0	933.00
42	Watch & Ward	Apr-Mar	15	4665.00	0	4665.00
			18	5598.00	0	5598.00
	Total					279.90
43	Monitoring & Supervision charge 5% of the total cost					
			18	5598.00	0	5877.90
	Grand Total					
7TH YEAR MAINTENANCE						
41	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	933.00	0	933.00
42	Watch & Ward	Apr-Mar	15	4665.00	0	4665.00
			18	5598.00	0	5598.00
	Total					279.90
43	Monitoring & Supervision charge 5% of the total cost					
			18	5598.00	0	5877.90
	Grand Total					
8TH YEAR MAINTENANCE						
44	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	933.00	0	933.00
45	Watch & Ward	Apr-Mar	15	4665.00	0	4665.00
			18	5598.00	0	5598.00
	Total					279.90
46	Monitoring & Supervision charge 5% of the total cost					
			18	5598.00	0	5877.90
	Grand Total					

	total cost					
	Grand Total		18	5598.00	0	5877.90
9TH YEAR MAINTENANCE						
47	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	933.00	0	933.00
48	Watch & Ward	Apr-Mar	15	4665.00	0	4665.00
	Total		18	5598.00	0	5598.00
49	Monitoring & Supervision charge 5% of the total cost					279.90
	Grand Total		18	5598.00	0	5877.90
10TH YEAR MAINTENANCE						
47	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	933.00	0	933.00
48	Watch & Ward	Apr-Mar	15	4665.00	0	4665.00
	Total		18	5598.00	0	5598.00
49	Monitoring & Supervision charge 5% of the total cost					279.90
	Grand Total		18	5598.00	0	5877.90
ABSTRACT						
Sl. No	Year	No. Person Day	Labour cost @ Rs. 311.00/- per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	0th year	100	31100	2939	1701.95	35740.95
2	1st year	124.50	38719.50	12385	2555.22	53659.72
3	2nd year	59	18349	9821	1408.50	29578.50
4	3rd year	52	16172.0	2920	954.60	20046.60
5	4th year	18	5598.00	0	279.90	5877.90
6	5th year	18	5598.00	0	279.90	5877.90
7	6th year	18	5598.00	0	279.90	5877.90
8	7th year	18	5598.00	0	279.90	5877.90
9	8th year	18	5598.00	0	279.90	5877.90
10	9th year	18	5598.00	0	279.90	5877.90
11	10th year	18	5598.00	0	279.90	5877.90
	Total	461.50	143526.50	28065.00	8579.57	180171.07

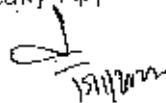
Revised Financial Outlay of the scheme for Stabilize the overburden dumps by appropriate grading/benching prepared in compliance with the Condition No.2(xiv)(d) of the Stage-I approval accorded by the GoI, MoEF & CC, ERO, Bhubaneswar vide their Letter F.No 8-27/2016-FC, Dt. 05.04.2019 in respect of the Proposal for diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha for Iron Ore mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

(Wage Rate @ Rs.315/- per MD)

Sl. No.	Particulars of interventions	Financial involvement (Rs)
1	Terracing of OB dump over a length of 100000 sqm @ Rs.357/sqm (Annexure-I)	3,57,00,000.00
2	Excavation of concrete drain of 600 cum over a slope length of 1000 mtr in every 50 meter within the slope of proposed OB dump (Annexure-II)	8,67,670.00
3	Block Plantation (@ 1600 plants/Ha) over 10.4716 ha of forest land @ Rs. 231409.13. (Annexure-III)	24,23,223.85
	Sub-Total:	3,89,90,893.85
	Inspection, monitoring and evaluation @15% of the total project cost	58,48,634.08
	Total	4,48,39,527.93
	Price escalation @20%	89,67,905.59
	Grand Total	5,38,07,433.52
		Or Say
		5,38,07,500.00

(Rupees five crore thirty-eight lakh seven thousand five hundred) only

Technically Approved



Regional Chief Conservator of Forests,
Rourkela Circle

COST NORM FOR BLOCK PLANTATION @ 1600 PLANTS PER HECTARE (18 months old seedling)
Wage rate @ ₹ 315/- per day

Sl. No	Items of work	Preferable Period of Execution	Labour In Mandays	labour cost (₹)	Material cost (₹)	Total cost in (₹)
1	2	3	4	5	6	7
PREVIOUS YEAR (ADVANCE WORK) NURSERY RAISING						
1	Nursery Cost (18 month Old Seedlings) @Rs.38.37/- part (Rs.9.50 to be released) for 1760 seedlings (1600+160)	Nov-March	44	13860	2860	16720.00
	Total		44	13860	2860.0	16720.0
2	Monitoring & Supervision charge 5% of the total cost					836.0
	Grand Total		44	13860	2860	17556
OTH YEAR (ADVANCE WORK) PRE-PLANTING OPERATION						
3	Survey, demarcation and pillar posting	Nov/Dec	2	630	0	630
4	Site preparation	Nov/Dec	12	3780	0	3780
5	Allignment and stacking of pits	Jan/Feb	2	630	0	630
6	Digging of pits (45 cm cube)	Feb/Mar	40	12600	0	12600
7	Nursery cost (18 months old seedling) @ Rs.38.37/- seedling, part (Rs.23.85 to be released) for 1760 seedlings (1600+160)	April-March	131.67	35176	6800.0	41976
8	Total		167.67	52816.1	6800.0	59616
9	Monitoring & Supervision charge 5% of the total cost					2980.80
	Grand Total		167.67	52816	6800	62597
1ST YEAR/PLANTING YEAR						
10	Nursery cost (18 months old seedling) balance @ Rs.5.02 for 1760 seedlings (1600+160)	April-June	22	6930	1905.20	8835.20
11	Fencing For an average of 250 meters/ha @ Rs.76.80/- per meter for bamboo twigs and bamboo thorn fencing	May/June	38	11970	8560	20530
12	Carriage & planting, Casualty Replacement and application of insecticides, manure etc.	Jul/Aug	21	6615	0	6615
13	Cost of insecticide and fertilizer (a) NPK @ 50 gms/plant as basal dose = 80kg @ Rs.24/- per kg = Rs.1920.00 (b) Urea @ 70 gms/plant in two subsequent doses @ Rs.6/- per kg = Rs.672.00 (c) Granular insecticide (Themet, Forate etc.) @ 5 gms/plant @ Rs.80/- per kg = Rs.640.00	Jul/Aug		0	3232	3232
14	1st weeding (complete weeding)	Aug/Sep	7	2205	0	2205
15	Manuring Urea 35 gm	Aug/Sep	5	1575	0	1575
16	2nd Weeding (complete weeding)	Sep/Oct	5	1575	0	1575
17	Soil working (50 cms. Radius around plants) & manuring Urea 35gms per plant	Sep/Oct	7	2205	0	2205
18	Soil conservation measures in the form of staggered benches of size 2 m X 0.5 m X 0.5 m @ 30 nos per ha	Sep/Oct	10	3150	0	3150
19	Fire line tracking & inspection path	Feb/Mar	3	945	0	945
20	Watch & Ward	Aug-Mar	7	2205	0	2205
	Total		125	39375	13697.20	53072.20
21	Monitoring & Supervision charge 5% of the total cost					2653.61
	Grand Total		125	39375	13697	55726

Sl. No	Items of work	Preferable Period of Execution	Labour in Mandays	labour cost (₹)	Material cost (₹)	Total cost in (₹)
1	2	3	4	5	6	7
2ND YEAR MAINTENANCE						
		May/June	20	6300	5080	11380
22	Repair and maintenance of Bamboo fence including material cost	Jul/Aug	4	1260	5574.40	6834.40
23	Casualty replacement (10%) with Nursery cost	Sep/Oct	6	1890	0	1890
24	Weeding (complete weeding)			0	2752	2752
25	Cost of fertilizer (NPK @70 gms/plant) (Rs.24/- per kg & Insecticide @5 gms/plant for 160 plants 800 gms @ Rs.80/- per kg)	Oct/Nov	7	2205	0	2205
26	Soil working (50 cms. Radius around plants)	Sep/Oct	4	1260	0	1260
27	Application of fertilizer & insecticide	Feb/Mar	3	945	0	945
28	Fire line tracing (2 m. wide fire line over 400 m long)	Apr-Mar	15	4725	0	4725
29	Watch & Ward		59	18585	13406.40	31991.40
	Total					1599.57
30	Monitoring & Supervision charge 5% of the total cost					
	Grand Total		59	18585	13406	33591
3RD YEAR MAINTENANCE						
		May/June	20	6300	1000	7300
31	Repair and maintenance of Bamboo fence including material cost	Aug/Sep	7	2205	0	2205
32	Weeding and application of fertilizer			0	1920	1920
33	Cost of fertilizer (NPK @ 50 gms/plant) @ Rs.24/- per kg	Oct/Nov	7	2205	0	2205
34	Soil working (50 cms. Radius around plants) & application of fertilizer	Feb/Mar	3	945	0	945
35	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Apr-Mar	15	4725	0	4725
36	Watch & Ward		52	16380	2920	19300
	Total					965
37	Monitoring & Supervision charge 5% of the total cost					
	Grand Total		52	16380	2920	20265
4TH YEAR MAINTENANCE						
		Feb/Mar	3	945	0	945
38	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Apr-Mar	15	4725	0	4725
39	Watch & Ward		18	5670	0	5670
	Total					284
40	Monitoring & Supervision charge 5% of the total cost					
	Grand Total		18	5670	0	5954
5TH YEAR MAINTENANCE						
		Feb/Mar	3	945	0	945
41	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Apr-Mar	15	4725	0	4725
42	Watch & Ward		18	5670	0	5670
	Total					284
43	Monitoring & Supervision charge 5% of the total cost					
	Grand Total		18	5670	0	5954
6TH YEAR MAINTENANCE						
		Feb/Mar	3	945	0	945
44	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Apr-Mar	15	4725	0	4725
45	Watch & Ward		18	5670	0	5670
	Total					284
46	Monitoring & Supervision charge 5% of the total cost					
	Grand Total		18	5670	0	5954
7TH YEAR MAINTENANCE						
		Feb/Mar	3	945	0	945
47	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Apr-Mar	15	4725	0	4725
48	Watch & Ward		18	5670	0	5670
	Total					284
49	Monitoring & Supervision charge 5% of the total cost					

Sl. No	Items of work	Preferable Period of Execution	Labour in Mandays	labour cost (₹)	Material cost (₹)	Total cost in (₹)
1	2	3	4	5	6	7
	Grand Total		18	5670	0	5954
8TH YEAR MAINTENANCE						
50	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	945	0	945
51	Watch & Ward	Apr-Mar	15	4725	0	4725
	Total		18	5670	0	5670
52	Monitoring & Supervision charge 5% of the total cost					284
	Grand Total		18	5670	0	5954
9TH YEAR MAINTENANCE						
53	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	945	0	945
54	Watch & Ward	Apr-Mar	15	4725	0	4725
	Total		18	5670	0	5670
55	Monitoring & Supervision charge 5% of the total cost					284
	Grand Total		18	5670	0	5954
10TH YEAR MAINTENANCE						
56	Fire line tracing (2 m. wide fire line over 400 m length) & cultural operation	Feb/Mar	3	945	0	945
57	Watch & Ward	Apr-Mar	15	4725	0	4725
	Total		18	5670	0	5670
58	Monitoring & Supervision charge 5% of the total cost					284
	Grand Total		18	5670	0	5954
ABSTRACT						
Sl. No	Year	No. Person Day	Labour cost @ ₹ 315/- per day	Material cost (₹)	Monitoring & Supervision charge 5% of the total cost	Total cost in (₹)
1	Previous Year	44	13860	2860	836	17556.00
2	0th year	167.67	52816	6800	2981	62596.85
3	1st year	125	39375	13697	2656	55725.81
4	2nd year	59	18585	13406	1600	33590.97
5	3rd year	52	16380	2920	965	20265.00
6	4th year	18	5670	0	284	5953.50
7	5th year	18	5670	0	284	5953.50
8	6th year	18	5670	0	284	5953.50
9	7th year	18	5670	0	284	5953.50
10	8th year	18	5670	0	284	5953.50
11	9th year	18	5670	0	284	5953.50
12	10th year	18	5670	0	284	5953.50
	Total:	573.67	180706	39684	11019	231409.13

Annexure-I

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

1. Location- over burden dump- work efficiency of HEMM machine per hour-3.5 Sqm on the dump.
(Average height of the terrace-20 mt)
2. Rate of engagement of HEMM Machine Rs. 1250/hr
3. Terracing cost at OB dump/sqm- Rs. $1250/3.5 = \text{Rs. } 357.14$ or say 357.00
4. In our OB dump average slope length=5000mtr
5. Average height of terrace 20 mt.
6. Total terrace area in sqm= $5000 \times 20 = 100,000$ sqm

Annexure-II

Excavation of earthen drain in every 50 meter within the slope of proposed OB dump

A: E/W Excavation by Mechanical Means

1. In our OB dump average slope length=5000mtr
2. Total no. of drain required within 5000 mtr slope length= $5000/50 = 100$ nos.
3. Average height of terrace 20 mt.
4. E/W excavation by mechanical means for one drain= $20\text{m} \times 1\text{m} \times 1\text{m} = 20$ Cum
5. Total volume to be excavated for 100 nos. of drain= $100 \times 20 = 2000$ cum
6. Taking Rs. 47.60/Cum, total cost for excavation of 2000 cum of earthen material= Rs. **95200.00/-**.

B: Providing crate boulder

1. Crate boulder pitching within earthen drain: $2000 \times 0.5 \times 0.5 = 500$ Cum
2. Considering Rs. 1544.94/Cum, the cost of boulder pitching within earthen drain= $500 \times 1544.94 = 7,72,470.00$
Total Cost= $95200 + 772470 = 8,67,670.00$



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

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

No. 1075 /Mining-07/2022
Dated, Keonjhar, the 09/02/2022

To

The Executive Director, F&E,
M/s OMC Ltd, OMC House,
Bhubaneswar- 751001Sub: Diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha. for Iron Ore Mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

X-Sub: Demand of revised Scheme for Compensatory Afforestation at the current wage rate @Rs. 315.00/- per Mandays.

Ref: Memo No. 2602 dated 08.02.2022 of PCCF, Forest Diversion and Nodal Officer, FC Act, O/o the PCCF & HoFF, Odisha, Bhubaneswar

Sir

With reference to the aforementioned memo on the captioned subject, the PCCF, Forest Diversion and Nodal Officer, FC Act, O/o the PCCF & HoFF, Odisha, Bhubaneswar has technically approved the revised CA Scheme at the current wage rate @Rs. 315.00/- per Mandays with maintenance of 10 years. You are requested to deposit the approved amount of Rs. 17,38,13,700.00 (Rupees seventeen crore thirty-eight lakh thirteen thousand seven hundred) only towards Scheme for Compensatory Afforestation scheme over 401.7824 ha stipulated in condition No. (ii) of the Stage- I approval dated 05.04.2019 of the MoEF&CC, Govt as per current wage rate 315.00/- per man-day 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.

Condition No.	Particulars	Amount to be deposited (Rs)
(ii)	Compensatory Afforestation Scheme over 401.7824 ha non-forest land identified in village Khamarpadar under Thuanul-Rampur Tahasil in Kalahandi (South) Division.	17,38,13,700.00
	Total	17,38,13,700.00

(Rupees seventeen crore thirty-eight lakh thirteen thousand seven hundred) only

It is mentioned that the previous demanded vide this office letter No. 552 dated 24.01.2022 is hereby cancelled.

Yours faithfully,

Divisional Forest Officer,
Keonjhar Division.
Memo No. 1076 / Dated. 09.02.2022

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

Divisional Forest Officer,
Keonjhar Division.
Memo No. 1077 / Dated. 09.02.2022

Copy forwarded to the Divisional Forest Officer, Kalahandi South Division for information and necessary action with reference to Memo No. 2602 dated 08.02.2022 of PCCF, FD&NO, FC Act, O/o the PCCF & HoFF, Odisha, Bhubaneswar (Copy enclosed)

Divisional Forest Officer,
Keonjhar Division.

AGENCY COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date: 14-02-2022

Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	5813031946
MoEF/SG File No.	8-27/2016-FC
Location.	ORRISA
Address.	OMC House Khordha
Amount(in Rs)	173857100/-

Amount in Words :Seventeen Crore Thirty-Eight Lakh Fifty-Seven Thousand One Hundred Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	ORRISA CAMPA
IFSC Code:	UBIN0903710
Pay to Account No.	150825813031946 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

* This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date: 14-02-2022

Agency Name.	ODISHA MINING CORPORATION LTD
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Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

* This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

After making successful payment, User Agencies may send a line of confirmation through
Email: helpdeskcampa@corpbank.co.in

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 to
Email: cb0371@unionbankofindia.com

cls

Sandhya Mishra
14/02/2022
DR. Sandhya Mishra
Addl. G.M.(F&E)
OMC Ltd.

S. Mohapatra
14/02/2022
S. Mohapatra
By General Manager (Fin)

UBIN090371022045024400

OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION.

No. 1756 / DL 28.03.06

To

The Regional Manager
M/s. O.M.C. Ltd.,
A.P.O. Shakuli,
Dist. Keonjhar.

Sub:-

Proposal for diversion of 216.3617 ha. of Forest land in Gandhamardan Block- A by Orissa Mining Corporation Ltd. in Keonjhar District.
Payment of N.P.V.

Sir,

You are requested to please deposit the Net Present value for the Forest land proposed for diversion for the above mining project immediately as per decision of Govt. of Orissa, Forest & Environment Department vide No. 10F(Cons.)114/2001-4953/F&E. dated. 22.03.2006.

iii)	Virgin area 151.6375 ha. x 9.20 lakhs	= Rs. 13,95,06,500.00
iv)	Broken up area 64.7242 ha. x 5.80 lakhs	= Rs. 3,75,40,036.00
	Total :-	Rs. 17,70,46,536.00

(Rupees seventeen crores seventy lakhs forty six thousand five hundred thirty six) only.

Yours faithfully,

Divisional Forest Officer,
Keonjhar Division.

Memo No. _____ / DL

Copy forwarded to the General Manager (F & E), M/s. O.M.C. Ltd.,
Bhubaneswar- 751001 for favour of information and necessary action.

Divisional Forest Officer,
Keonjhar Division.

Memo No. _____ / DL

Copy forwarded to the Chief Conservator of Forests (Nodal), O/O. the
Principal Chief Conservator of Forests, Orissa, Bhubaneswar for favour of information with
reference to his Memo No. 86/3/9F(Misc)62/2003 dated 27.03.2006.

Divisional Forest Officer,
Keonjhar Division.

यह चिह्न नग्न नो कालिग से का मनेन कबसे है
VALID FOR SIX MONTHS FROM THE DATE OF ISSUE.

12/09/2009

SWAR - 251/009 (OHSSA) (5550)

न मड़े DO NOT FOLD

दिनांक 19-04-2009
DATE

बैंक द्वारा
एक
पेपर
पेपर
पेपर

DEMAND PAYEE KEDNHOH-DIVISION

या उनके आदेश पर OR ORDER

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रुपये RUPES Seventeen Crore Seventy Lakh

₹ 17,70,46,536.00

Only Six thousand Five Hundred Thirty Six only
₹ 17,70,46,536.00

FOR VALUE RECEIVED

बैंक बैंक ऑफ इंडिया THE BANK OF INDIA

प. नं. / RECON. CODE अक्षर ALPHIA जिल. नं. 514

THE BANK OF INDIA

[Signature]
कोड नं. P 882

बैंक द्वारा (Drawee Branch) BHIN

5 4 0 0
प. नं. / RECON. CODE

[Signature]
P. 2130
Authorised Signatory

001891700000130000

16

474

Cable: ORMINCORP, Bhubaneswar

Tel: 0674 2393431, 2395689, 2393389 (EPABX), 2392747 (Dir)
Fax: 0674-2391629, 2396889, 2394772



The Orissa Mining Corporation Ltd.
(A Government of Orissa Undertaking)
OMC HOUSE, BHUBANESWAR - 751001

No. 8122 /OMC/F&E/06

DL20/04/06

To,
The Divisional Forest Officer,
Keonjhar Forest Division,
At/P.O: Keonjhar
Dist: Keonjhar

Sub: Payment of NPV to-wards diversion of 216.3617 hecets. of forest land in Gandhamardan Block-A Iron Ore Mining Lease of Keonjhar District of OMC Ltd.

Ref: Your office letter Memo No.1757 dtd.28/03/06.

Sir,

In inviting a reference to the above cited letter, we are depositing herewith a sum of Rs.17,70,46,536/- (Rupees Seventeen Crore Seventy Lakh Forty Six Thousand Five Hundred Thirty Six) only towards Net Present Value (NPV) for diversion of 216.3617 hecets of forest land in respect of Gandhamardan Block-A Iron Ore Mining Lease of Keonjhar District of OMC Ltd; under reference :

- a) Issuing Branch :- Bank of India, BBSR
- b) Drawee Branch :- Bank of India, Keonjhar (Code No.5400)
- c) Amount :- Total Rs. 17,70,46,536/- (Rupees Seventeen Crore Seventy Lakh Forty Six Thousand Five Hundred Thirty Six) only.
- d) Demand Draft No.:- 018947 dt.19.04.06.

You are requested to acknowledge the same and send the treasury challan to the undersigned for office record.

Yours faithfully,
Sd/-

Executive Director (F&E)

Encl: Draft in original
No. 018947 dt.19.04.06 of
Bank of India, Bhubaneswar

Memo No. 8123 /OMC/F&E/06

Dtd. 20/04/06

Copy to the Regional Manager, OMC Ltd., Gandhamardan for information and necessary action.

Copy to the Dy. Manager (A/C), HO, Bhubaneswar for information.

Executive Director (F&E)

AM (F&E)

AM
21/4

Received original
draft from as per
enclosure.

7-11-11
20/04/06
AM (F&E)
ORMIN

O/C
pal
21.04.06

1274

1274

BANK OF INDIA
BRANCH (5550)
BANK OF INDIA (ORISSA) (5550)

यह चेक जारी की तारीख से छह महीने तक वैध है।
VALID FOR SIX MONTHS FROM THE DATE OF ISSUE.
न मोड़ें DO NOT FOLD

दिनांक 19-04-2005
DATE

पंजीकृत
मूल
FIRST IN PEE
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IN DEMAND PAYABLE TO THE ORDER OF

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क्र. नं. 11
क्र. नं. 07

रुपये SEVENTEEN CRORES SEVENTY LAKH

या उनके आदेश पर OR ORDER

Not Over Rs. 17,70,46,536.00
BIUBAN 165

17,70,46,536.00

BIUBAN 165

FOR VALUE RECEIVED
करो बैंक ऑफ इंडिया For BANK OF INDIA

भारतीय रिज़र्व बैंक

काउन्सिलर

भारतीय रिज़र्व बैंक (ब्रान्च) BBN

5 4 0 0
BIUBAN 165

Signature
CODE No. 0880
कोड नं.
CODE No.
Authorised Signatory

0880

0000130000 0000130000

OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISIONPh.No. 06766-254315, FAX 06766-254041; email: ofsdp_kjr@rediffmail.com**Office Order No. 297 / Mining****Dated, Keonjhar the 15th JUNE, 2010.**

In partial modification of this Office Order No.204 dated 16.06.2010, the revised demand of NPV in respect of Gandhamardan Iron Ore Mines, Block-A of M/s. O.M.C. Ltd. is as follows.

01. Whereas M/s O.M.C Ltd. has applied for RML under Section- 2 of F.C. Act over 618.576 ha. of land for their Gandhamardan Iron Ore Mines, Block-A out of which 519.7472 ha. is forest land as per the following classification:
- | | |
|---------------------|-----------------------|
| i. Reserve Forest | - Nil |
| ii. P.F | - 486.1340 ha. |
| iii. Revenue Forest | - 33.6132 ha. |
| Total | - 519.7472 Ha. |
02. Whereas the Apex Court on the recommendation of Central Empowered Committee have issued order for recovery of NPV for the entire forest area deducting the amount of NPV already paid.
03. Whereas the Divisional Forest Officer is vested with the authority by the Apex Court to issue Demand by 24th of June, 2010 at the appropriate rate depending on Eco-value class and the canopy density of the forest area in question.
04. Whereas demand for payment of NPV of Rs. 18,99,19,323/- was charged at the rate of Rs.6,26,000/- per ha over 303.3855 ha vide this Office Order No.204 dt. 16.6.10.
05. Whereas after thorough assessment, it was ascertained that the Lease is in question falls within Gandhamardan P.R.F. and according to the available approved Working Plan of Keonjhar Division, the entire Gandhamardan P.R.F comes under 3C/C2e(ii) forest type-Moist Peninsular low level-Sal, which qualifies as Eco-Value Class-I for Calculation of NPV, in pursuance to Memo No. 21687/ F& E dt. 12.12.09 of Govt. of Orissa, Forest & Environment Department.
06. Whereas the forest area over 303.3855 ha (519.7472 ha - 216.3617 ha) falls under Class-I of Eco-Value Class & 0.35 canopy density for which NPV at the rate of Rs.7,30,000/- per ha. is to be charged amounting to Rs. 22,14,71,415/- for 303.3855 ha of Forest land.
07. Whereas the lessee has already paid an amount of Rs.17,70,46,536/- towards NPV in respect of 216.3617 ha. of forest land.
08. Now therefore the undersigned by virtue of authority vested by the Hon'ble Apex Court, hereby issue demand notice for payment of differential amount of Rs.22,14,71,415/- towards NPV within 30 days of issue of this order, failing which all mining operations will be closed till the payment along with the interest is paid. The differential amount is to be deposited in shape of Demand Draft drawn in favour of Compensatory Afforestation Fund (CAF) Orissa, Account No. CA-1585 in Corporation Bank Lodhi Road, New Delhi.
- It is further ordered that in the event of upward revisions of NPV, an undertaking to pay the differential is to be submitted by the lessee.

S.K.
(S.K.Mohanty, IFS)
Divisional Forest Officer,
Keonjhar Division.

Memo No 5559 /Dated. 5-7-10

Copy forwarded to the Regional Manager, M/s. O.M.C. Ltd. Gandhamardat Iron Ore Mines, Block-A, At/Po- Sukathi, Dist- Keonjhar for information and necessary action in continuation to this Office Memo No.4800 dated.16.06.2010.

Divisional Forest Officer,
Keonjhar Division.

Memo No /Dated.

Copy forwarded to the Range Officer, BJP Range for information and necessary action in continuation to this Office Memo No.4801 dated.16.06.2010.

Divisional Forest Officer,
Keonjhar Division.

Memo No /Dated.

Copy forwarded to the Conservator of Forests, Rourkela Circle, Rourkela for favour of information and necessary action with reference to Memo No. 8236/9. (Misc)60/10 dt. 19.5.2010 of Principal Chief Conservator of Forests, Orissa, Bhubaneswar and this Office Memo No.4802 dated.16.06.2010.

Divisional Forest Officer,
Keonjhar Division.

Memo No /Dated.

Copy forwarded to the Principal Chief Conservator of Forests, Orissa for favour of information and necessary action with reference to his Office Memo No. 8235/9F (Misc)60/10 dt. 19.5.2010 and this Office Memo No.4803 dated.16.06.2010.

Copy to O.O. File.

Divisional Forest Officer,
Keonjhar Division.

The Orissa Mining Corporation Ltd.

(A Government of Orissa Undertaking)

OMC HOUSE, BHUBANESWAR -751001



No. 14328/OMC/F&E/10

Date: 23.07.2010

To

The Divisional Forest Officer
Keonjhar Forest Division,

Sub: Payment of NPV in respect of Gaudhamardua-A Iron Ore Mines of O.M.C.Ltd.

Ref: Your Office Order No.204/Mining, dt 16.06.2010 & Letter No.297/Mining, dt 05.07.2010.

Sir

In inviting a kind reference to the letter and subject cited above we are enclosing herewith a demand drafts amounting Rs 22,14,71,415.00 (Rupees twenty two crore fourteen lakhs seventy one thousand four hundred and fifteen) only, bearing DD Nos.650824/dt 21.07.2010 (Rs 18,99,19,323.00) and DD No.650916/dt 23.07.10 (Rs 3,15,52,092) drawn in favour of Compensatory Afforestation Fund (CAF) Orissa, Account No.CA-1585 in Corporation Bank, Lodhi Road, New Delhi.

An undertaking to pay the differential amount in case of upward revision of NPV duly signed is enclosed for necessary action.

Further it is requested, if the total forest area will not be cleared under the Forest Clearance (FC) or Environmental Clearance (EC) the balance NPV may kindly be refunded. One to three years time will be required to complete the exploration and basing on the exploration result, the forest area proved barren shall be surrendered for which the NPV already paid for this non-mineralised forest area may be refunded back to OMC.

This is for favour of kind information and necessary action.

Yours faithfully

Encls. Original DD Bearing Nos. 650824/dt 21.07.2010
(Rs 18,99,19,323.00) and DD No.650916/dt 23.07.10
(Rs 3,15,52,092.00), S.B.J., Bhubaneswar Main Branch

Dy. General Manager (Geology)
Power of attorney holder

Memo No. 14327/OMC/F&E/10, dt 23.07.2010

Copy to the Regional Chief Conservator of Forests, Rourkela/ CCF (Nodal), O/o the PCCF, Orissa, Bhubaneswar for kind information and necessary action.

Dy. General Manager (Geology)
Power of attorney holder

Memo No. 14328/OMC/F&E/10, dt 23.07.2010

Copy to the Regional Manager, Baripada/ Manager (Acts), I.O. for kind information and necessary action.

Dy. General Manager (Geology)
Power of attorney holder

O/C

DEMAND DRAFT
 COMP AFFOR FUND (CAF) ORISSA A/C NO CA 1685 CORPN BANK

COMP AFFOR FUND (CAF) ORISSA A/C NO CA 1685 CORPN BANK

रुपये RUPEES	ONE 10000	TWO 20000	THREE 30000	FOUR 40000	FIVE 50000	SIX 60000	SEVEN 70000	EIGHT 80000	NINE 90000	TEN 100000	THIRTY 300000	FOURTY 400000	FIFTY 500000	ONE HUNDRED 1000000	TWO HUNDRED 2000000	THREE HUNDRED 3000000	FOUR HUNDRED 4000000	FIVE HUNDRED 5000000	SIX HUNDRED 6000000	SEVEN HUNDRED 7000000	EIGHT HUNDRED 8000000	NINE HUNDRED 9000000	TEN HUNDRED 10000000
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RAISE FROM ONLY

VALUE RECEIVED

Receipt
21.08.08
DRS
AM
22/8/08

भारतीय स्टेट बैंक
 STATE BANK OF INDIA
 ड्राफ्ट शाखा / DRAWAL BRANCH: SERVICER BRANCH, NEW DELHI
 कोड नं. / CODE No: 07687
 IOI 000107650924 Key: VUBJUY Sr. No: 97533

Signature
 DRAGI MANAGER
 JAGADISH RATH
 SS No. R-8779

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1277

DEMAND DRAFT
 COMP AFFOR FUND (CAF) ORISSA A/C NO CA 1685 CORPN BANK

रुपये RUPEES	ONE 10000	TWO 20000	THREE 30000	FOUR 40000	FIVE 50000	SIX 60000	SEVEN 70000	EIGHT 80000	NINE 90000	TEN 100000	THIRTY 300000	FOURTY 400000	FIFTY 500000	ONE HUNDRED 1000000	TWO HUNDRED 2000000	THREE HUNDRED 3000000	FOUR HUNDRED 4000000	FIVE HUNDRED 5000000	SIX HUNDRED 6000000	SEVEN HUNDRED 7000000	EIGHT HUNDRED 8000000	NINE HUNDRED 9000000	TEN HUNDRED 10000000
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भारतीय स्टेट बैंक
 STATE BANK OF INDIA
 ड्राफ्ट शाखा / DRAWAL BRANCH: SERVICER BRANCH, NEW DELHI
 कोड नं. / CODE No: 07687
 IOI 000107650916 Key: VEFDOP Sr. No: 454295

Signature
 DRAGI MANAGER
 JAGADISH RATH
 SS No. R-8779

१६५०९१६१० ००००२०००० ०००१०७०० १७

Signature

OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

No. 1946 - Mining
 Dated Keonjhar, the 11th March, 2013

To:

The Managing Director,
 M/s OMC Ltd. OMC House,
 13, Park Road, Cuttack - 751001

Sub:

Direction of 17.02.2009 of Govt. of India in respect of
 up forest land 47,244.2 ha (out of 216,361.7 ha of forest land proposed) in
 Gandhamardan Block A in favour of Odisha Mining Corporation in
 Keonjhar district of Odisha for 1st renewal of mining lease.

Ref:

No. 8105-2006-FC dated 17.02.2009 of Govt. of India, MoEF

Sir,

The Govt. of India in Ministry of Environment and Forests have granted
 single approval vide letter No. 8105-2006-FC dated 17.02.2009 in respect of the
 above mining lease subject to fulfilment of all the terms and conditions. In condition No. 3 the
 mining agency has to pay the Net Present Value for the entire forest land involved within
 the mining lease as per the orders of Hon'ble Supreme Court of India. You are requested
 to deposit the following Net Present Value (NPV) for the balance forest area of
 303,385.5 ha. (519,747.2 ha. - 216,361.7 ha.) included in the mining lease.

N.P.V. for 303,385.5 ha. of 0.1 density @ Rs. 9,19,000/- ha.	Rs. 28,48,78,985.00
N.P.V. already deposited	Rs. 22,14,91,445.00
Balance to be paid	Rs. 6,34,07,570.00

(Rupees six crore thirty-four lakhs seven thousand five hundred seventy) Only

The amount to be deposited through RTGS/NEFT mode in the state
 specific CAMPA (C.A.P.) Odisha SB Account No. 2522, IFSC No. CORP0000371 of
 Corporation Bank, CGO Complex, Lodhi Road, New Delhi-110003 and the proof
 evidence of deposit of funds be submitted to this office for taking further action at this
 end.

Yours Faithfully,


 Divisional Forest Officer,
 Keonjhar Division.

Memo No. _____ Dated _____

Copy forwarded to the Regional Manager, Gandhamardan Iron Ore Mines
 O/M/s OMC Ltd. A/P O, Sukani, Dist. Keonjhar for information and necessary action.


 Divisional Forest Officer,
 Keonjhar Division.

Cable: ORMINCORP, Bhubaneswar

Tel: +0674 2393431, 2395689, 2393389 (FAX), 2392747(Dir)
Fax: 0674-2391629, 2396889, 2394772

The Odisha Mining Corporation Ltd.

A GOLD CATEGORY STATE PSU
(A Government of Odisha Undertaking)
OMC HOUSE, BHUBANESWAR-751001



No. 3633/OMC/F&E/2013

Date 18/3/2013

To

The Divisional Forest Officer
Keonjhar Forest Division

Sub: Diversion of 117.9648 ha of forest land (Fresh area 76.7206 ha and broken up forest land 41.2442 ha) (out of 216.3617 ha of forest land proposed) in Gandhamardan Block-A in favour of Odisha Mining Corporation in Keonjhar district of Odisha for 1st renewal of mining lease.

Ref: DFO's Letter No. 1946/Mining dt 11.03.2013

Sir

In inviting a reference to the letter cited above, we have deposited Rs 6,34,07,570.00 (Rupees six crores thirty four lakh seven thousand five hundred seventy) only towards the NPV for the balance forest area of 303.3858 ha included in the mining lease through RTGS mode in the State specific CAMPA (CAF) Odisha SB Account No.2522, IFSC No.CORI0000371 of Corporation Bank, CGO Complex, Lodhi Road, New Delhi-110003. The original receipt in support of the of the deposit is enclosed herewith for necessary action.

It is requested to kindly forward the compliance report to the higher quarter in order to facilitate grant of final forest clearance (Stage-II) pertaining to Gandhamardan-A Iron Ore mines.

Enclosure: RTGS Receipt

Yours faithfully

(S.K.Das)

Sr. Manager (Geo)

Power of attorney holder

Memo No. 3634/OMC/F&E/2013 dt 18/3/2013

Copy forwarded to the Chief Conservator of Forests (Nodal), Bhubaneswar/Regional Chief Conservator of Forests, Routkela Circle for kind information and necessary action.
Copy to the Regional Manager, Gandhamardan for kind information and necessary action.

(S.K.Das)

Sr. Manager (Geo)

Power of attorney holder

Counter foil State Bank of India Bhubaneswar Main Branch
 Branch _____ Date 16.03.2013 Received from OMC LTD, BBSR by Cheque / Transfer for RTGS on _____ Branch
 CORPORATION BANK, LODHI COMPLEX, NEW DELHI
 _____ Favouring CAMPA No_037100101025222 Amount Rs. 6,34,07,570/-
 Bank's Charges Rs. _____ Total Rs. 6,34,07,570/- Rupees Six crore thirty four lac seven thousand
 five hundred _____

13355
 BHUBANESWAR MAIN BR
 16 MAR 2013
 Initial
 Serial No. _____
 Check ID No. _____

CTR SAINTH 13075323523

No. 8771 / Mining
 Dated, Keonjhar the 16th December, 2012.



To
 The Managing Director,
 M/s Orissa Mining Corporation,
 OMC House, Bhubaneswar-751001

Sub: Diversion of 117.9648 ha. of forest land (fresh area 76.7206 ha. and broken up forest land 41.2442 ha.) (out of 216.3617 ha. of forest land proposed) in Gandhamardan Block-A in favour of Orissa Mining Corporation in Keonjhar District of Orissa for first renewal of Mining Lease.

Ref: No. 8-105/2006-FC dated. 17.02.2009 of the Govt. of India, MoEF and Memo No. 19713/9F(MG)-12/2004 dated. 04.12.2012 of C.C.F, Forest Diversion & Nodal Officer, FC Act and memo no.3863 dt.27.11.2012. of RCCF, Rourkela Circle.

Sir,
 With reference to the above cited letter on the above subject, where the Govt. of India, MoEF have agreed in principle for diversion of 117.9648 ha. of forest land subject to fulfillment of 18 nos. conditions. As per item No.1(i),2 & 7 you are requested to deposit the following amounts as noted against each through RTGS/NEFT mode in Compensatory Afforestation Fund (CAF), Orissa SB Accounts No. 25222, IFSC No. CORP0000371 of Corporation Bank, CGO Complex, Lodhi Road, New Delhi-110003 or in SB Account No. 344902010105428, of Union Bank of India, Sundarnagar, New Delhi-110003, IFSC No. UBINO534498 through RTGS/NEFT mode and the proof/evidence of the deposit of fund be submitted for taking further necessary action.

1	Cost of Compensatory Afforestation over-117.9648 ha. (As approved vide memo no.19713 dt. 04.12.2012 of CCF(Nodal))	Rs. 1,55,06,000.00
2	Cost of Compensatory Afforestation charges after deducting the legally broken up forest area, i.e., Assisted Natural Regeneration (ANR) scheme without Gap Plantation over 455.023 ha. (As approved vide memo no.19713 dt. 04.12.2012 of CCF(Nodal))	Rs. 91,85,000.00
3	Cost for fencing, protection and regeneration of Safety Zone over 3.029 ha. (As per letter No. 3863/3F (Dis-K)-153/2012 dt. 27.11.2012 of RCCF, Rourkela Circle)	Rs. 96,38,100.00
4	Cost for Afforestation over 1.5 times of Safety Zone over 4.5435 ha. In degraded forest area (As per letter No. 3863/3F (Dis-K)-153/2012 dt. 27.11.2012 of RCCF, Rourkela Circle)	Rs. 13,55,600.00
Total		Rs 3,57,74,700.00

(Rupees Three Crores Fifty seven lacs Seventy four thousand Seven hundred) only.

Yours faithfully,

[Signature]
 Divisional Forest Officer,
 Keonjhar Division.

[Handwritten notes and stamps]
 (CCF) 16/12/12
 Payment 16/12/12
 14/12/12

शुभमेश्वर कॉर्पोरेशन बैंक
SHUBANESHWAR

LSI
Trans. Date : 14/02/2013
Trans. No : 0275/0001
00400

Panacea

DEBIT

DEBIT VOUCHER

A/C : CCSDL/01/120005 THE ORISSA MINING CORPORATION LTD
Amount : INR 57,54,86,321.00
Rupees Fifty Seven Crore Fifty Four Lakh Eighty Six
Thousand Three Hundred and Twenty One Only

PARTICULARS

ADB TO SB /01/025222
COMPENSATORY AFFORESTATION
NEW DELHI - LODHI - ABB SL : 00025
Instrument No. : Instrument dated : 14/02/2013
Orig/Resp : Corp Remit Tran. : Branch :



PREPARED BY : E12503 CHECKED BY : F13680 MANAGER
Transfer Scroll No : Initials : E13011/14022013/14:25 Officer/Manag.

शुभमेश्वर कॉर्पोरेशन बैंक
SHUBANESHWAR

LSI
Trans. Date : 14/02/2013
Trans. No : 0275/0002
00400

Panacea

CREDIT

CREDIT VOUCHER

SL : 000811 BRANCH ACCOUNT
Amount : INR 57,54,86,321.00
Rupees Fifty Seven Crore Fifty Four Lakh Eighty Six
Thousand Three Hundred and Twenty One Only

PARTICULARS

ABB Transfer From
By CB333 CCSDL/01/120005
Inst No. 0000000/ ABB SL : 00025
Instrument No. : Instrument dated : 14/02/2013
Orig/Resp : 0 Corp Remit Tran. : Branch : 371 NEW DELHI - LODHI COMPLEX

PREPARED BY : E12503 CHECKED BY : F13680 MANAGER
Transfer Scroll No : Initials : E13011/14022013/14:25 Officer/Manag.



1.	Compensatory Afforestation	01,55,95,000.00	Trans No.0275/0001 14.02.2013
2.	Safety Zone	96,38,100	
3.	1.5 times Safety Zone	13,55,600.00	
4.	Site Specific Wildlife Management Plan	5,16,69,000.00	
5.	CA Charges	91,85,000.00	
6.	Penal NPV	48,80,47,621.00	
Total		57,54,86,321.00	

No. 8741 / Mining.
 Dated, Keonjhar the 14th December, 2012.



To
 The Managing Director,
 M/s Orissa Mining Corporation,
 OMC House, Bhubaneswar-751001

Sub: Diversion of 117.9648 ha. of forest land (fresh area 76.7206 ha. and broken up forest land 41.2442 ha.) (out of 216.3617 ha. of forest land proposed) in Gandhamardan Block-A in favour of Orissa Mining Corporation in Keonjhar District of Orissa for first renewal of Mining Lease.

Ref: No. 8-105/2006-FC dated. 17.02.2009 of the Govt. of India, MoEF and Memo No. 19713/9F(MG)-12/2004 dated. 04.12.2012 of C.C.F, Forest Diversion & Nodal Officer, FC Act and memo no.3863 dt.27.11.2012. of RCCF., Rourkela Circle.

Sir,

With reference to the above cited letter on the above subject, where the Govt. of India, MoEF have agreed in principle for diversion of 117.9648 ha. of forest land subject to fulfillment of 18 nos. conditions. As per item No. 1(i), 2 & 7 you are requested to deposit the following amounts as noted against each through RTGS/NEFT mode in Compensatory Afforestation Fund (CAF), Orissa SB Accounts No. 25222, IFSC No. CORP0000371 of Corporation Bank, CGO Complex, Lodhi Road, New Delhi-110003 or in SB Account No. ✓344902010105428, of Union Bank of India, Sundarnagar, New Delhi-110003, IFSC No. ✓UBINO534498 through RTGS/NEFT mode and the proof/evidence of the deposit of fund be submitted for taking further necessary action.

1	Cost of Compensatory Afforestation over-117.9648 ha. (As approved vide memo no.19713 dt. 04.12.2012 of CCF(Nodal))	Rs: 1,55,96,000.00
2	Cost of Compensatory Afforestation charges after deducting the legally broken up forest area, i.e., Assisted Natural Regeneration (ANR) scheme without Gap Plantation over 455.023 ha. (As approved vide memo no.19713 dt. 04.12.2012 of CCF(Nodal))	Rs 91,85,000.00
3	Cost for fencing, protection and regeneration of Safety Zone over 3.029 ha. (As per letter No. 3863/3F (Dis-K)-153/2012 dt. 27.11.2012 of RCCF, Rourkela Circle)	Rs. 96,38,100.00
4	Cost for Afforestation over 1.5 times of Safety Zone over 4.5435 ha. In degraded forest area (As per letter No. 3863/3F (Dis-K)-153/2012 dt. 27.11.2012 of RCCF, Rourkela Circle)	Rs. 13,55,600.00
Total		Rs 3,57,74,700.00

(Rupees Three Crores Fifty seven lakhs Seventy four thousand Seven hundred) only.

Yours faithfully,

[Signature]
 Divisional Forest Officer,
 Keonjhar Division.

[Handwritten notes and signatures]
 SA (FOE)
 Payment
 14/12/12



Corporation Bank

CORPORATION BANK
MURANESHWAR

LSI
Trans. Date : 14/02/2013
Trans. No : 0275/0001
00400

Panacca

DEBIT VOUCHER

DEBIT
A/C : CCBL/01/120005 THE DRISSA MINING CORPORATION LTD
Amount : INR 57,54,86,321.00
Rupees Fifty Seven Crore Fifty Four Lakh Eighty Six
Thousand Three Hundred and Twenty One Only

PARTICULARS

ABB TO SB /01/025222
COMPENSATORY AFFORESTATION
NEW DELHI - LODHI - ABB SL : 00025
Instrument No. : Instrument dated : 14/02/2013
Orig/Resp : Corp Remit Tran. : Branch :



PREPARED BY : E12503 CHECKED BY : E13680 MANAGER
Transfer Scroll No : Initials : E13011/14022013/16:25 Officer/Manq.

CORPORATION BANK
MURANESHWAR

LSI
Trans. Date : 14/02/2013
Trans. No : 0275/0002
00400

Panacca

CREDIT VOUCHER

CREDIT
SL : 500B11 BRANCH ACCOUNT
Amount : INR 57,54,86,321.00
Rupees Fifty Seven Crore Fifty Four Lakh Eighty Six
Thousand Three Hundred and Twenty One Only

PARTICULARS

ABB transfer From
By CR33 CCBL/01/120005
Inst No. 0000000/ ABB SL : 00025
Instrument No. : Instrument dated : 14/02/2013
Orig/Resp : 0 Corp Remit Tran. : Branch : 371 NEW DELHI - LODHI COMPLEX

PREPARED BY : E12503 CHECKED BY : E13680 MANAGER
Transfer Scroll No : Initials : E13011/14022013/16:25 Officer/Manq.



1.	Compensatory Afforestation	01,55,96,000.00	Trans No.0275/0001 14.02.2013
2.	Safety Zone	96,38,100	
3.	1.5 times Safety Zone	13,55,600.00	
4.	Site Specific Wildlife Management Plan	5,16,69,000.00	
5.	CA Charges	91,85,000.00	
6.	Penal NPV	48,80,42,621.00	
Total		57,54,86,321.00	

PROFORMA FOR VERIFICATION OF DEPOSITS IN COMPENSATORY AFFORESTATION FUND

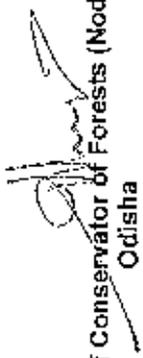
1.	Name of Office	Bhubaneswar
2.	State/District/Forest Division to which the proposal relates	Odisha/Keonjhar/Keonjhar Forest Division
3.	Name of User Agency, nature of proposal	M/s Odisha Mining Corporation Limited (A Govt. of Odisha Undertaking)
4.	Nature and category of proposal	Mining
5.	Proposal number	Gandhamardan (Block-A) Iron Ore Mines
6.	Extent of forest area involved	401.7824 Hectare
7.	Whether original or extension	Extension
8.	If extension of lease, please clarify if proposal involves additional forest area and if so, specify	41.2442 ha of part forest area approved vide No. 8-105/2006-FC dt. 24.04.2017 76.7206 ha of part forest area approved vide No 8-105/2006-FC dt. 22.03.2021
9.	Date of 1 st Stage clearance	-
10.	Extent of CAMPA charges, head wise viz.:	
	(a) Compensatory Afforestation	Rs. 18,94,09,703/- (Rs. 1,55,96,000/- + Rs. 17,38,13,700/-)
	(b) Additional Compensatory Afforestation	Rs. 91,85,000/-
	(c) Penal Compensatory Afforestation	Rs. 1,81,79,500/-
	(d) Catchment Area Treatment	Nil
	(e) Wildlife Management Plan	
	i) Site Specific Wildlife Conservation Plan	Rs 5,16,69,000/-
	ii) Regional Wildlife Management Plan	Rs.2,65,98,768/-(1,23,71,520/- + Rs. 1,42,27,248/-)
	(f) Additional charges for diversion of area falling under notified/protected areas	Nil
	(g) Net Present Value	Rs 46,19,25,521/-(17,70,46,536/- +18,99,19,323/- +3,15,52,092/- +6,34,07,570/-)
	(h) Any other charges/levies (Please specify)	
	i) Penal NPV	Rs. 50,75,41,213/- (Rs. 48,80,42,621/- + Rs. 1,94,98,592/-)
	ii) Safety Zone	Rs 96,38,100/-
	iii) 1.5 times Safety Zone	Rs 13,55,600/-
	iv) Scheme on mitigative measures to minimize soil erosion and choking of streams	
	v) Scheme on gap planting and SMC mesasures	Rs. 5,67,800/- (Rs. 5,12,700/- + Rs. 11,700/- + Rs. 43,400/-)
	vi) Scheme on planting adequate drought hardy plant species and showing of seeds to arrest soil erosion	
	Total	Rs. 1,27,60,70,202/-
11.	Whether payment made through challan or otherwise. In case of online payment, details of challan.	

12 Details of deposits											
Sr. No.	Type of deposit (NFC/CA/ IRR/MP/ Others (specify))	Whether by RTGS/DD/ NEFT (Specify)	UTR/ DD No.	Amount deposited (Rs.)	Date of deposit	Name of Bank from which amount transferred to account of CAF	Bank Account of CAF managed by CAMPA in which fund deposited				
i)	NPV	DD	083747	Rs. 17,70,46,536/-	15.06.2008	A/c. No. CA-1585, Corporation Bank, Lodhi Road, New Delhi.	A/c. No. CA-1585, Corporation Bank, Lodhi Road, New Delhi.				
			DD	850824	Rs. 18,99,19,323/-	21.07.2010	A/c. No. CA-1585, Corporation Bank, Lodhi Road, New Delhi, (Code No.00041)	A/c. No. CA-1585, Corporation Bank, Lodhi Road, New Delhi.			
ii)	Penal NPV	DD	650918	Rs. 3,15,52,092/-	23.07.2010	State Bank of India, Bhubaneswar Main Branch, (Code No.00041)	A/c. No. CA-1585, Corporation Bank, Lodhi Road, New Delhi.				
			NPV	SBINH13076323527	Rs. 6,34,07,570/-	16.03.2013	State Bank of India, Bhubaneswar Main Branch, (Code No.00041)	SB Ac No. 252, IFSC No. CORP0000371 of Corporation Bank, CGO Complex, Lodhi Road, New Delhi-110003.			
iii)	Compensatory Afforestation	RTGS	Trans. No. 0275/0001	Rs. 48,80,42,621/-	14.02.2013	Corporation Bank, Bhubaneswar	Trans. no. 0275/0001 (Orissa SB Account No. 25222 of Corporation Bank, Lodhi Road, CGO Complex, New Delhi-110003)				
			RTGS	Challan 558353233	No. Rs. 1,94,98,592/-	14.02.2016	Union Bank of India, Bhubaneswar	Union Bank of India, Sunder Nagar, New Delhi-110003, IFSC Code-UBIN0534498			
iv)	Additional Compensatory Afforestation	RTGS	Trans. No. 0275/0001	Rs. 1,56,96,000/-	14.02.2013	Corporation Bank, Bhubaneswar	Trans. no. 0275/0001 (Orissa SB Account No. 25222 of Corporation Bank, Lodhi Road, CGO Complex, New Delhi-110003)				
			Online Payment	UBINJ22045024404	Rs. 17,38,13,700/-	14.02.2022	A/c. No. 105911011000001 of Andhra Bank, OMC Campus Branch, Bhubaneswar	A/c. No. 150825813031945, Corporation Bank, Lodhi Complex Branch, Block 11, CGO Complex, Phase I, Lodhi Road, New Delhi-110003.			
			RTGS	Trans. No. 0275/0001	Rs. 91,85,000/-	14.02.2013	Corporation Bank, Bhubaneswar	Trans. no. 0275/0001 (Orissa SB Account No. 25222 of Corporation Bank, Lodhi Road, CGO Complex, New Delhi-110003)			
v)	Penal CA	RTGS	Challan 569359233	No. Rs. 1,81,79,500/-	14.02.2016	Union Bank of India, Bhubaneswar	Union Bank of India, Sundar Nagar, New Delhi-110003, IFSC Code-UBIN0534498				
			RTGS	Trans. No. 0275/0001	Rs. 96,36,100/-	14.02.2013	Corporation Bank, Bhubaneswar	Trans. no. 0275/0001 (Orissa SB Account No. 25222 of Corporation Bank, Lodhi Road, CGO Complex, New Delhi-110003)			
vi)	Safety zone	RTGS	Trans. No. 0275/0001	Rs. 57,54,86,321/-	14.02.2013	Corporation Bank, Bhubaneswar	Trans. no. 0275/0001 (Orissa SB Account No. 25222 of Corporation Bank, Lodhi Road, CGO Complex, New Delhi-110003)				

vi)	1.5 Times Safety zone	RTGS	Trans. No. C. 5001	Rs. 13,55,600/- (Part of deposit of Rs 57,54,86,321/-)	14.02.2013	Corporation Bhubaneswar	Bank	Trans no. 0275/0001 (Orissa SB Account No. 25222 of Corporation Bank, Lodhi Road, CGO Complex, New Delhi-110003)
vii)	SSWLCP	RTGS	Trans. No. 0275/0001	Rs. 5,16,69,000/- (Part of deposit of Rs 57,54,86,321/-)	14.02.2013	Corporation Bhubaneswar	Bank	Trans no. 0275/0001 (Orissa SB Account No. 25222 of Corporation Bank, Lodhi Road, CGO Complex, New Delhi-110003)
viii)	RWLMP	RTGS	SBIN314360031431	Rs. 1,23,71,520/- amount of Rs. 9,76,03,213/- has been transferred which includes Rs 1,23,71,520/-	26.12.2014	State Bank of India, Keonjhar	State Bank of India, Keonjhar	SB Account No. 34490201010528, Union Bank of India, Sundar Nagar, New Delhi-110003, IFSC Code-UBIN0534498
ix)	Scheme for Gap plantation and Soil & Moisture Conservation activities	Online payment	ANDBN19241868554	Rs. 5,12,700/-	29.10.2019	A/c No. 105911011000001 of Andhra Bank, OMC Campus Branch, Bhubaneswar	State Bank of India, Bhubaneswar (Code 00041)	SB Account No. 34490201010528, Union Bank of India, Sundar Nagar, New Delhi-110003, IFSC Code-UBIN0534498
			ANDBN19241868554	Rs. 11,700/-	27.12.2019	A/c No. 105911011000001 of Andhra Bank, OMC Campus Branch, Bhubaneswar	A/c No. 150825813720279, Corporation Bank, Lochi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003	A/c No. 150825813720279, Corporation Bank, Lochi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003
			ANDBN19241868554	Rs. 43,400/- (Part of deposit of Rs. 17,38,57,100/-)	14.02.2022	A/c No. 105911011000001 of Andhra Bank, OMC Campus Branch, Bhubaneswar	A/c No. 150825813720279, Corporation Bank, Lochi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003	A/c No. 150825813720279, Corporation Bank, Lochi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003

Date: 21.12.2022
Place: Keonjhar


Divisional Forest Officer
Keonjhar Forest Division


Chief Conservator of Forests (Nodal)
Odisha

Chief Conservator of Forests
Forest Division & Nodal Office, PO-64

FORM NO.11
(for projects other than linear projects)
Government of Odisha
Office of the District Collector, Keonjhar

No. 2685

Dt. 31.12.14

TO WHOMSOEVER IT MAY CONCERN

In compliance of the Ministry of Environment and Forests (MoEF), Government of India's letter No.11-9/98-FC(F).dt.3rd August, 2009 wherein the MoEF issued guidelines on submission of evidences for having initiated and completed the process of settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights Act), 2006 ('FRA' for short) on the forest land proposed to be diverted for non-forest purposes; it is certified that 519.7472 hectares of forest land proposed to be diverted in favour of M/s O.M.C., Ltd for the purpose of mining activities in Gandhamardan Block A Iron Ore Mines in Keonjhar District falls within jurisdiction of Danla(Ha.121.4192),Suakati(9.7300) village and Gandhamardan R.F.(388.5980)in Keonjhar Tahasil.

It is further certified that

- (a) the complete process of identification and settlement of rights under the FRA has been carried out for the entire 519.7472 hectares of forest land proposed for diversion. A copy of records of all consultations and meetings of the Forest Rights Committee(s), Gram Sabha(s), Sub-Division Level Committee(s) and the District level Committee are enclosed as annexure 1 to annexure 19
- (b) the proposal for such diversion (with full details of the project and its implications, in vernacular/local language) have been placed before each concerned Gram Sabha(s) of forest dwellers who are eligible under the FRA.
- (c) the each of concerned Gram Sabha(s), has certified that all formalities/processes under the FRA have been carried out, and that they have given their consent to the proposed diversion and the compensation and ameliorative measures, if any, having understood the purpose and the details of proposed diversion. A copy of certificate issued by the Gram Sabhas of Danla and Suakati village is enclosed as annexure 7 to 13
- (d) the discussion and decisions on such proposals had taken place only when there was a quorum of minimum 50% of the members of Gram Sabha present.
- (e) No such facilities managed by Government requiring diversion of forest land u/s 3(2) of the Forest Rights Act, 2006 exist over the forest land proposed for diversion
- (f) the rights of Primitive Tribal Groups and Pre-Agricultural Communities, where applicable have been specifically safeguarded as per section 3(1) (e) of the FRA.

Encl:- As above.

(Sri Bishnu Prasad Saloo)
Collector, Keonjhar

N.B : i) This certificate is issued as per letter No.17446/F&E/Dt.21.8.2013 of Special Secretary to Govt. F&E Department, Odisha and D.O.letter No.17593/CS/F&E/dt. 24.10.2009 and letter No.27799/F&E/dt.30.9.2010 of the Chief Secretary, Odisha.

ii) This certificate is issued subject to fulfillment of all other statutory provisions to operate the mines

D.W.O., Keonjhar

P.A., ITDA, Keonjhar

Sub-Collector, Keonjhar

Memo No 2686 /2014 dt. 31.12.14

Copy alongwith its enclosure forwarded to the
A. S. O, Kanyan Division, Mandya for information
and necessary action;

Su
31.12.14

Asst. District Magistrate
Kanyan

Memo No 2687 /2014 dt. 31.12.14

Copy forwarded to the Chairman - cum - Managing
Director, B.M.C. H. Mukarjuna for information &
necessary action.

Copy forwarded to the Regional Manager, BMC
Hankaranta for information & necessary action.

Su
31.12.14

Asst. District Magistrate
Kanyan

PALLISABHA MEETING

Place: Daonla School Ground
Dt. 16.12.2014 Time-10.00 AM
Village-Daonla GP-Suakati

A Meeting of Pallisabha of Daonla village was held on 16.12.2014 (Tuesday) at 10.00 AM under the Chairmanship of Maghu Naik Ward member. Sri Bhimsen Puhari Sarpanch of Suakati Gram Panchayat (GP), Sri Tapas Bhoi, Tahasildar cum Block Development Officer, Sri Kamal Kumar Parmanik Addl. Tahsildar, Members of the Forest Rights Committee, Daonla and the undersigned villagers attended the meeting and participated in the discussion. Executive Officer of the GP explained about the main objective and matters to be discussed in the meeting as per letter No.1850 dated 24.9.2012 of ADM, Keonjhar and letter No. 3416 dt.11.10.2014 of Banspal Panchayat Samiti. The following resolution was passed after detail discussion in this meeting regarding use of 121.4192 ha of Forest land in Daonla Village and 388.5980 ha of Gandhamardan PRF for non-forestry purpose as per the application submitted by Odisha Mining Corporation Limited. The undersigned Govt. Officials along with Revenue Inspector, Suakati, Welfare Extension Officer, Banspal, Forester, Suakati were also present in the meeting.

1st Proposal

In this meeting it was discussed in detail regarding proposed use of 121.4192 ha of village forest of Daonla village and adjoining area over 388.598 ha of Gandhamardan PRF is proposed to be used for Non-Forestry purpose (Mining). Besides, the proposal for use of 1.033 ha of Village Forest and 1.696 ha RF area for development of green belt for Gandhamardan-A Iron Ore Mine of Odisha Mining Corporation Limited was threadbare.

The objective of the above diversion proposal and its applicability was discussed in brief in the meeting. All the legal provision of Scheduled Tribes and Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 was discussed in detail in light of the proposal for diversion of above forest land. Earlier also in this village, the details regarding Forest Right Act, 2006 were made fully aware to the Scheduled Tribe, Scheduled Caste and other Traditional Forest Dwellers those who are depending on this forest land of this village. The said forest land proposed for diversion is included within the mining lease area of OMC. It was ascertained through the discussion in the meeting that neither any Primitive Tribal Group (PTG), Primitive Agricultural Community (PAC) nor Traditional Forest Dwellers those who depend on this forest land are occupying the land for dwelling and enjoying the forest produce. This has been made aware to all in the Forest Right Committee meeting previously. Nobody is depending on this forest land included within the mining lease of OMC either by constructing house or agriculture. Neither any community right nor any individual claim by PTG, PAC and Other Forest Dwellers vested on this forest land.

The villagers present in the meeting unanimously supported to continue mining

Pallisabha resolution translated from Odia version to English is correct.


Block Development Officer
Banspal Block

activity by OMC. Besides a resolution was passed unanimously regarding the proposal of earning the livelihood by the ST and OTFD working in this mine. Therefore, it was decided to request the Tahasildar, Banspal to implement the proposal by the Government regarding diversion of 121.4192 ha of village forest of the above village and 388.5980 ha of Gandhamardan RF for mining activity by OMC.

The meeting was ended with vote of thanks to all the members, Villagers, Sarpanch and Officers present who assisted in the meeting. As per the demand raised by some villagers regarding CSR activities, the matter was discussed and it was decided to send the proposal separately to the concerned authority for necessary action.

The meeting ended with a vote of thanks to the Chair.

Sd/-
Sarpanch, Suakati GP,

Sd/-
Ward Member

Sd/-
Welfare Extension Officer, Banspal

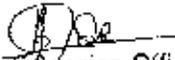
Sd/-
Addl. Tahsildar, Banspal

Sd/-
Executive Officer Suakati GP

Sd/-
Forest Section Officer, Suakati

Sd/-
Revenue Officer Suakati

*Pratibha Sabha resolution translated
from Odia version to English
is correct.*


Welfare Extension Officer
Banspal Block

PALLISABHA MEETING

Place: In front of Suakati Mundasahi Club

Dt. 10.11.2014

Time-10.00 AM

Village-Suakati

GP-Suakati

A Meeting of Pallisabha of Suakati village was held on 10.11.2014 (Monday) at 10.00 AM under the Chairmanship of Smt. Minati Barik, Ward member, Sri Bhimsen Pahan, Sarpanch of Suakati Gram Panchayat (GP), Sri Kamal Kumar Parmanik, Addl. Tahasildar, All Members of Forest Rights Committee, Suakati & the undersigned villagers attended the meeting and participated in the discussion. Executive Officer of the GP explained about the purpose and matters to be discussed in the meeting as per letter No.1850 dated 24.9.2012 of ADM and 3416 dt.11.10.2014 of Banspal Panchayat Samiti. At the outset he appraised the main purpose and topic of discussion to all present in this meeting. The main purpose of this meeting is regarding application of Odisha Mining Corporation for use of total 9.73 ha of Forest land in Suakati Village for Non-Forestry Purpose. The matter was discussed in the meeting and the following resolutions were passed. Revenue Inspector, Suakati, Welfare Extension Officer, Banspal were also present in the meeting along with the undersigned Govt. Officials.

1st Proposal

In this meeting it was discussed in detail regarding proposed use of 9.73 ha of village forest of Suakati village and adjoining area over 388.598 ha of Gandhamardan PRF is proposed to be used for Non-Forestry purpose (Mining). Besides, use of 1.9051 ha of Village Forest along with 1.696 ha RF area for regeneration of Safety Zone area for Gandhamardan-A Iron Ore Mine of Odisha Mining Corporation Limited was discussed.

The objective of the above diversion proposal and its applicability was discussed in brief in the meeting. All the legal provision of Scheduled Tribes and Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 was discussed in detail in light of the proposal for diversion of above forest land. It was ascertained after detail discussion in the meeting that prior to 13.12.2005 neither any Schedule Tribe nor any Traditional Forest Dwellers are occupying or depending on any forest land for any purpose. Neither previously nor till date nobody is utilising the said forest land for agriculture and depending on it for their livelihood. Neither any primitive tribal group nor any traditional forest dwellers individually or in community occupying the said forest area. Diversion of above forest area is involved within the mining lease of OMC. Earlier also the details were fully apprised to all present in the Forest Right Committee of this village. The villagers present in meeting fully supported the mining activity by OMC to be continued because local tribal people would earn their livelihood in the mine through a resolution jointly accepted by all. Therefore the proposal for use of 9.73 ha of village forest of this village and 388.598 ha of Gandhamardan PRF for non-forestry use in Gandhamardan Block-A mine was unanimously supported by the

Pallisabha resolution translated from Odia version to English is correct.


Welfare Extension Officer
Banspal Block

villagers and decided to request Tahasildar, Bansopal to implement it by the Government. Previously on 27.04.2008 and on 17.08.2013 the villagers of this village were made aware about Forest Rights Act, 2006 through the Pallisabha.

The meeting was ended with vote of thanks to the Sarpanch, Govt. Officers present and the villagers for attending the meeting. As per demand by some villagers regarding CSR activities, the matter was discussed and it was decided to send the proposal separately to the concerned authority for necessary action.

Sd/-
Sarpanch, Suakati GP,

Sd/-
Ward Member

Sd/-
Welfare Extension Officer, Bansopal

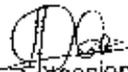
Sd/-
Addl. Tahsildar, Bansopal

Sd/-
Executive Officer Suakati GP

Sd/-
Forest Section Officer, Suakati

Sd/-
Revenue Officer Suakati

*Palli Sabha resolution translated
from Odia version to English
is correct.*


Welfare Extension Officer
Bansopal Block

**PROCEEDING OF THE
DISTRICT LEVEL COMMITTEE MEETING
ON FOREST RIGHTS
HELD ON 23.12.2014 AT 12 NOON IN THE
MINI CONFERENCE HALL OF COLLECTORATE
KEONJHAR**

**PROCEEDING OF THE DISTRICT LEVEL FOREST RIGHTS
COMMITTEE MEETING HELD ON 23.12.14 AT 12 NOON IN MINI
CONFERENCE HALL OF THE COLLECTORATE, KEONJHAR**

District Level Forest Rights Committee meeting held on 23.12.2014 at 12 Noon in the Mini conference Hall of Collectorate, Keonjhar under the Chairmanship of Collector, Keonjhar. The list of members/participants present in the meeting is attached in Annexure (I). The Agenda wise discussion made as follows:-

1. CONFIRMATION OF PROCEEDING OF THE LAST D.L.C. MEETING HELD ON 20.10.2014.

The proceedings of the last D.L.C. meeting held on 20.10.2014 was circulated among all the members vide Memo No. 2241 /ITDA(K) FRC. Dtd.22.10.2014. As no objection has been received from any quarter. Hence proceedings is confirmed.

2) APPROVAL OF INDIVIDUAL/ COMMUNITY / CFR CLAIMS RECOMMENDED BY THE SDLC

The following individual claims have been received from the Sub-Collectors-cum-Chairman SDLC.Champua duly approved in respective SDLC for approval in DLC,Keonjhar today.

Name of the Block / JDA	No. of habituated villages			No. of Amins engaged	Total no. of claim objections received for this DLC. (PTG-JUANG)	Total no. of claim objections received for this DLC. (S.T)	Total	Date of approval in SDLC
	PTG	Oth.	Total					
1.GHASIPURA	-	157	157	02	-	-	-	-
2.ANANDAPUR	-	119	119	05	-	-	-	-
3.HATADIHI BLOCK	-	218	218	03	-	-	-	-
4.JODA BLOCK	-	109	109	03	-	27	27	27.10.14
5.CHAMPUA BLOCK	-	150	150	02	-	31	31	27.10.14
6.JHUMPURA BLOCK	-	150	150	02	-	28	28	27.10.14
7.KEONJIAR BLOCK	-	213	213	01	-	-	-	-
8.BANSPAL BLOCK	14	112	126	04	-	-	-	-
9.TELKOI BLOCK	38	105	143	03	-	-	-	-

10. PATNA BLOCK	-	149	149	01	-	-	-
11. SAHARPADA BLOCK	-	138	138	-	-	-	-
12. GHATGAON BLOCK	11	128	139	04	-	-	-
13. HARICH. PUR BLOCK	38	161	199	03	-	-	-
14. JDA, GONASIKA	35	-	35	02	-	-	-
TOTAL	136	1909	2045	35	-	86	86

No claims either individual and CFR or CR have been received from Sub-Collectors, Anandapur and Keonjhar.

The Collector, Keonjhar has expressed his displeasure for non submission of claims either individual or CFR.

After a thread bare discussions and detailed scrutiny the Committee approved the following claims objections under individual rights.

Name of the Sub-Divn.	No. of cases	Area	Out of which P.T.G.		Remarks
			No. of cases	Area	
CHAMPUA	Ind. P.F.- R.F.- 86 Total- 86	Ac. - Ac. -44.16 Ac. 44.16			Details are Annx.(A)
GRAND TOTAL	Ind. P.F.- R.F. 86 Tot.- 86	Ac. - Ac. 44.16 -Ac.44.16			

Progressive position of Individual cases.

- Total receipt of claim objections -- 63670
- Total disposal of claim objections - 63670
- Total "Certificate of Title" approved - 48287 cases

P.F.- 40328 - Ac. 33962.945
R.F.- 7959 - Ac. 8437.62
Total- 48287 - Ac. 42400.565

- P.V.T.G. - 4880 Ac. 6119.86

District Welfare Officer,
Keonjhar

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Progressive position of Community cases.

During this DLC community claim -NIL

- Total receipt of claim objections -- 370
- Total disposal of claim objections -- 331
- Total "Certificate of Title" approved -- 331 cases

P.F.-206 – Ac. 2351.60
R.F.-125 – Ac. 5084.95
Total- 331- Ac.7346.55

U/s 3(2) - 206 - Ac.2351.60 (Diverted claims)

U/s 3 (1) - 125 - Ac.5084.95 (Concerned with livelihood)

- P.V.T.G. -- 20 Ac. 283.68

The house was directed to all concerned for taking effective steps for collection of claim objection as well as fully saturation certificate.

The Collector-cum-Chairman,DLC has directed to the PA,ITDA,Keonjhar-cum-Dist.Nodal Officer,FR to download printed copy and distribute all pending Titles by end of the this month positively.

3) REVIEW OF CFR CLAIMS

As per direction in the last DLC meeting all 212 CFR claims received from SDLCs have been forwarded to DFO,Keonjhar & DFO(W/L)Anandapur for further verification but till date not a single case received from the DFOs. The details are given below :

Sl.No	Name of division	No.of CFR Claims
01.	Keonjhar	188
02	Anandapur	24

The Collector,Keonjhar directed to both DFOs for submission of CFR claims after verification to DLC within fortnight positively.

94) COMPLIANCE OF ST & OTFD (RFR) ACT 2006 FOR DIVERSION OF FOREST LAND TOWARDS NON-FOREST ACTIVITIES- ISSUANCE OF CERTIFICATE THEREOF .

The following diversion proposal was received. After Gram sabha & SDLC meeting , the Sub-Collector-cum-Chairman, SDLC, Keonjhar has submitted proceeding of the SDLC dtd.20.12.14 with other documents for compliance of ST & OTFD (RFR) Act,2006 for diversion of Forest land towards Non-Forest activities- Issuance of certificate thereof.

Sl.No	Name of the User's Agency	Purpose of diversion of forest land	Name of the Sub-Collector	Mouza covering	Name of the Tahasil
01	M/s OMC Ltd	For Mining activities in Gandhamardan Block-A Iron Ore Mines	Keonjhar	Danla/ Suakati / Gandhamardan RF	Banspal

Mining activities in Gandhamardan-Block-A Iron Ore Mines

(A)Village Suakati:- Previously awareness on Forest Right Act was made in village by holding Palli Sabha on Dt.27.4.2008 (Annexure -B) where in Forest Right Committee members were also selected., On Dt.17.10.14(Annexure-C) Palli Sabha was again held and in this Palli Sabha the villegers were informed about FR Act and its various provision. As per notice issued vide Notice No.20/dt.25.10.14 by Sarapanch. Suakati GP for village Suakati a Pallisabha was held on 10.11.14 (Annexure-D) where in discussion on Forest Right claim(Individual or Community) was made and it was found that no ST's & OTFD people lived in the proposed area of 9.7300 Ha. of Forest land prior to 13.12.2005 and do not depend upon the said forest area for earning their livelihood. No such person also found to encroach the said forest area. The Gram Sabha/Palli Sabha convinced that there is no claim of any STs, PTGs & OTFD over the proposed area of 9.7300 Ha. of Forest land and unanimously approved the diversion of forest land in favour of M/s OMC Ltd.. The SDLC has also recommended for diversion of above forest land in the meeting held on 20.12.2014.

(B)Village Danla:- Previously awareness on Forest Right Act was made in village by holding Palli Sabha on Dt.20.4.2008, (Annexure -E) where in Forest Right Committee members were also selected. On Dt.12.10.14(Annexure-F) Palli Sabha was again held and in this Palli Sabha the villegers were made aware about FR Act and its various provision and the were requested file claim application for Individual as well Community rights in proper format As per notice issued vide Notice No.33/dt.10.12.14 by Sarapanch. Suakati GP for village Danla a Pallisabha was held on 16.12.14 (Annexure-G) where in discussion on Forest Right claim was made and it was found that no STs & OTFD people lived in the proposed area of 121.419 Ha. of Forest land prior to 13.12.2005 and do not depend upon the said forest area for earning their livelihood. No such person also found to encroach the said forest area. The Palli Sabh convinced that there is no claim of any STs, PTGs & OTFD over the proposed area of 121.419 Ha. of Forest land and unanimously approved the diversion of forest land in favour of M

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OMC Ltd. The SDLC has also recommended for diversion of above forest land in the meeting held on 20.12.2014

© Gandhamardan RF-388.5980 Ha

The Tahasildar, Banspal has reported in his verification certificate that the Revenue village Suakati and Danla are the adjoining village of Gandhamardan RF. The villagers of the above two village are not dependent on the RF for their livelihood.

The SDLC, Keonjhar in their meeting held on dtd.20.12.14 furnished certificates ensuring attendance of more than 50% of voters of the concerned villages & verifying the signatures/ LTI of the participants duly attested with reference to Electoral Roll of the village. The SDLC further certified that the ST & OTFD(RFR) Act,2006 and amendment rule,2012 has been ensured in respect of concerned village and there is no claim either individual or community on the forest land proposed for diversions in the respective villages.

For better appreciation of the DLC, the details of village, extent of land & other relevant information concerning diversion of forest land measuring an area of 519.7472 Ha. of User's Agency M/s OMC Ltd. for the Villages noted against each as mentioned below :

Name of the village/ Mouza	Extent of land apply (in Ha.)	Kisam of the land	Date of Gram Sabha when the diversion proposal approved	No. of Voters as per Electoral roll	No. of Voters signed in the Gram Sabha	Whether genuineness of voters verified with reference of St.No. of Electoral roll by authorized Civil official in Gram Sabha	Whether joint verification certificate is countersigned by the Chairman SDLC	Previously Gram S in concerned villy provisions of FR / discussed
Danla	121.4192 Ha.	Junglo	16.12.14	813	557	Yes	Yes	20.4.08- FR Com discussion about 12.10.14- Aware FR Act
Suakati	9.7300 Ha	Junglo	10.11.14	1688	1086	Yes	Yes	27.4.08- FR Com discussion about 17.10.14- Aware FR Act
Gandhamardan RF	388.5980 Ha	RF						
Total	519.7472 Ha.							

NB- Village Suakati and Danla is the adjoining village of Gandhamardan RF

District Welfare Officer
Keonjhar

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Considering the (i) approval of the Gram Sabha of respective villages, (ii) recommendation of SDLC, - Champua dtd. 20.12.2014 (iii) Joint verification certificates ensuring participation of more than 50% of the voters of the villages and "No claim" either Individual or Community on the proposed Forest land under ST & OTFD (RFR) Act, 2006 & Rules there under, (iv) land particulars for proposed diversion land jointly signed by Tahasildar, Banspal and Forest Range Officer, BJB Range (v) Enquiry report signed by Sub-Collector, Keonjhar, Tahasildar, Banspal, Forest Range Officer, BJB Range, RJ, Suakati, ADWO, Sadar, Keonjhar, WEO, Banspal and President of FRC Committee of the concerned village (vi) proceedings of SDLC, Champua held on 20.12.14, (vii) and the certification about no claim over the proposed land by ST, PFG & OTFD under FR Act for individual and community purposed. The DLC (FR), Keonjhar convinced that:-

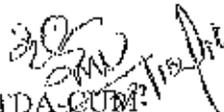
- a) the complete process for identification and settlement of rights under the FRA has been carried out for the entire 519.7472 Hectares of forest land proposed for diversion in village Danla, Suakati and Gandhamardan RF (Danla-121.4192 Ha. + Suakati- 9.7300 Ha + Gandhamardan RF -388.5980), as revealed from the proceedings of the respective Gram Sabhas. A copy of proceedings of FRC(s), Gram Sabha(s) and SDLC are enclosed.
- b) the proposal for such diversion in vernacular/local language have been placed before each concerned Palli Sabha of forest dwellers, who are eligible under the FRA, as revealed from the proceedings of the respective Gram Sabhas.
- c) Each of the concerned Palli Sabha(s) has certified that all formalities/processes under FRA have been carried out, and that they have given their consent to the proposed diversion and the compensation and ameliorative measures, if any, having understood the purpose and details of proposed diversion. A copy of Gram Sabha resolutions of village Danla and Suakati are enclosed.
- d) It reveals from the enquiry report furnished by Revenue & Forest personnel the discussion and decisions on such proposals taken only when there was a quorum of minimum 50% of the members of Gram Sabha present.
- e) It reveals from the enquiry report furnished by Revenue & Forest personnel that no such facilities managed by the Govt. as required under section 3(2) of the FRA requiring diversion of forest land exist within the applied area as.

- d) the right of PTG and PAC where applicable have been specifically safeguarded as per section 3 (1) (c) of the FRA as reveals from the enquiry report furnished by Revenue & Forest personnel:-
- g) it reveals from the proceedings of the Palli Sabha of the above 02 villages that no ST or OTFD were in possession of the forest land proposed for diversion before 13.12.2005.
- h) Further it reveals from the Palli Sabha proceedings of above 02 villages that no tribal or OTFD are presently residing nor any title of rights has been granted under the ST & OTFD(RFR)Act,2006 to any tribal or OTFD on the Forest land proposed for diversion.

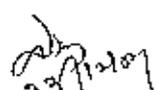
Therefore, it was unanimously decided by the District Level Committee to submit proposals to Collector & District Magistrate, Keonjhar for issuance of certificate regarding compliance of STs and OTFDs (RFR) Act,2006 & Rules there under

The District Nodal Officer, FR was directed to submit the original case record of the User's Agency M/s OMC Limited for mining activities in Gandhamardan Block-A Iron ore Mines to the Collector & District Magistrate, Keonjhar for issuance of certificate regarding compliance of STs and OTFDs (RFR) Act,2006 & Rules there under

The meeting ended with a vote of thanks to the Chair as well as the participants.


 P. HIDA-CUM
 NODAL OFFICER, FRA


 COLLECTOR, KEONJHAR


 District Welfare Officer,
 Keonjhar


 District Forest Officer,
 Keonjhar


 District Forest Officer,
 Keonjhar

INTEGRATED TRIBAL DEVELOPMENT AGENCY : KEONJHAR

Memo No. 2349 /ITDA(FR) Dated : 23-12-14

Copy submitted to the Director(ST-cum-Addl. Secretary to Govt., ST & SC Development Department, Odisha, Bhubaneswar for kind information.


PROJECT ADMINISTRATOR, ITDA,
-CUM-DIST. NODAL OFFICER, FR

Memo No 2350 /ITDA Dated : 23/12/14
Copy to all members for information and necessary action.


PROJECT ADMINISTRATOR, ITDA,
-CUM-DIST. NODAL OFFICER, FR

ANNEXURE-G

ON

Sl. No.	Name of the Applicant and Fathers/Husband name	Caste	Block	G.P.	Village	Khata No.	Plot No.	Kusam	Area in Ac.			Remarks
									Gharbar	Agril.	Total	
2	237/14 Parbati Naik W/o-Bhagu	ST (Bathudi)	Champua	Jaily	Nischintapur	74	443/1	G Jungle		0.10	0.10	
3	238/14 Sachibanta Naik S/o-Late Ghasinath	do	do	do	do	74	443/2	do		0.20	0.20	
4	239/14 Rabi Naik S/o- Budhia	do	do	do	do	74	443/3	do		0.08	0.08	
5	240/14 Mohanta Naik S/o-Dukhabandhu	do	do	do	do	74	724/1	do	0.02		0.02	
6	241/14 Sindhu Naik S/o-Late Ranjan	do	do	do	do	74	724/2	do	0.20		0.20	
7	242/14 Padana Naik S/o-Late Baikunthe	ST (Savnd)	do	Jojoposi	Jojoposi	82	915/1	do		0.04	0.04	
8	243/14 Niranjan Naik S/o- Late Jagannath	do	do	do	do	82	915/2	do		0.04	0.04	
9	244/14 Nakafudi Naik S/o- late Jagannath	do	do	do	do	82	915/3	do		0.04	0.04	
10	245/14 Padmanava Naik S/o-Late Hari	do	do	do	do	82	915/4	do		0.08	0.08	
11	246/14 Jagabandhu Naik S/o- Late Hari	do	do	do	do	82	915/5	do		0.08	0.08	
12	247/14 Prabhakar Naik S/o-Late Nalindra	do	do	do	do	82	915/6	do		0.09	0.09	
13	248/14 Madan Naik S/o- Late Nalindra	do	do	do	do	82	915/7	do		0.10	0.10	
14	249/14 Sagara Naik S/o- Late Nalindra	do	do	do	do	82	1097/1	do		0.10	0.10	
15	250/14 Hirenva Naik S/o- Gaura	do	do	do	do	82	1097/2	do	0.10		0.10	
16	251/14 Trilochan Naik S/o- Late Mutu	do	do	do	do	82	1097/3	do		0.04	0.04	
17	252/14 Chakrachar Naik S/o-Late Mitu	do	do	do	do	82	1097/4	do		0.04	0.04	
18	253/14 Gananatha Naik S/o-Late Ananda	do	do	do	do	82	1097/6	do		0.20	0.20	
19	254/14 Biswambara Naik S/o-Late Ananda	do	do	do	do	82	1097/5	do		0.20	0.20	
	254/14 Pitambar Naik S/o- Late Jay	do	do	do	do	82	1097/7	do		0.09	0.09	

20	255/14	Chaitanya Naik S/o- Late Kalanoi	do	do	do	do	82	1097/8	do	0.09	0.09
21	256/14	Dhaneswar Naik S/o- Late Kalandi	do	do	do	do	82	1097/9 899/110 1097/10	do do do	0.10	0.19
22	257/14	Sridhara Dehury S/o- Late Kalandi	do	do	do	do	82	1097/11	do	0.10	0.10
23	258/14	Purna Ch Naik S/o- Late Mane	do	do	do	do	82	1097/12	do	0.10	0.10
24	259/14	Bhaskara Naik S/o- Late Mapa	do	do	do	do	82	1097/13	do	0.10	0.10
25	260/14	Banameli Naik S/o- Late Mana	do	do	do	do	82	1887/1	do	0.08	0.08
26	261/14	Chintamani Dehury S/o- Umakanta	do	do	do	do	82	2187/1	do	0.10	0.10
27	262/14	Suren Munda S/o- Late- Dulai	ST(Kolha)	Champua	do	do		2083	do	0.10	0.10
28	263/14	Bhimasen Munda S/o- Late- Samara	ST(Kolha)	Champua	do	do		2083/2	do	0.08	0.08
29	264/14	Budhuram Munda S/o- Suren	ST(Kolha)	Champua	do	do		2083/3	do	0.10	0.10
30	265/14	Chandra Munda S/o- Late- Bamu	ST(Kolha)	Champua	do	do		2083/4	do	0.10	0.10
31	266/14	Anama Munda S/o- Makuru	ST(Kolha)	Champua	do	do		2806/1	do	0.02	0.02
32	267/14	Jamuntesingh Munda S/o- Niranjani	ST(Kolha)	Ibumpura	Khuntapada	do	140	2806/2	do	0.21	0.21
33	268/14	Metu Munda S/o- Niranjani	ST(Kolha)	do	do	do	140	2806/3	do	0.08	0.13
34	269/14	Rajendra Munda S/o- Rugeswar	ST(Kolha)	do	do	do	140	2806/4 2806/11	do do	0.05	0.08
35	270/14	Niranjani Munda S/o- Gopinatha	ST(Kolha)	do	do	do	140	2806/5 2806/13	do do	0.05	0.06
36	271/14	Durga charan Munda S/o-	ST(Kolha)	do	do	do	140	2806/6 2806/14	do do	0.04	0.06
37	272/14	Gopinatha Samal Munda	ST(Kolha)	do	do	do	140	2806/7	do	0.02	0.04
38	273/14	S/o- Niranjani Dasaretti Munda	ST(Kolha)	do	do	do	140	2806/8	do	0.05	0.05
39	274/14	S/o- Gopinatha Mangulu Munda	ST(Kolha)	do	do	do	140	2806/9	do	0.07	0.07
40	275/14	S/o- Niranjani Rajkishor Munda	ST(Kolha)	do	do	do	140	2806/10	do	0.10	0.10
41	276/14	S/o- Gopinatha Keshavnatha Munda	ST(Kolha)	do	do	do	140		do	0.10	0.10

42	277/14	Gurucharan Munda S/o-Late-Bharata	ST(Kolha)	do	do	do	do	do	do	2806/16	do	0.05	0.05
43	278/14	Shyam Munda S/o-Dulum	ST(Kolha)	do	do	do	do	do	do	2806/17	do	0.03	0.03
44	279/14	Niranjan Munda S/o-Gopinatha	ST(Kolha)	do	do	do	do	do	do	2806/15	do	0.02	0.02
45	280/14	Bameswar Munda S/o-Jhagalu	ST(Kolha)	do	do	do	do	do	do	2806/18	do	0.05	0.05
46	281/14	Gambha Birua S/o-Bhanja	ST(Kolha)	do	do	do	do	do	do	2806/19	do	0.06	0.06
47	282/14	Mohan Birua S/o-Kandra	ST(Kolha)	do	do	do	do	do	do	2806/20	do	0.11	0.11
48	283/14	Harithar Jamuda S/o-Ajay	ST(Kolha)	do	do	do	do	do	do	2806/21	do	0.10	0.10
49	284/14	Sidhu Munda S/o-Kartika	ST(Kolha)	do	do	do	do	do	do	2806/22	do	0.10	0.10
50	285/14	Balabhadra Birua S/o-Bhanja	ST(Kolha)	do	do	do	do	do	do	2806/23	do	0.10	0.10
51	286/14	Raya Munda S/o-Renga	ST(Kolha)	do	Malda	Dhatika	do	do	do	558/1	do	0.35	0.35
52	287/14	Chakra Gagarai S/o-Laxmana	ST(Kolha)	do	do	do	do	do	do	558/10	do	0.19	0.19
53	288/14	Birsingh Gagarai S/o-Laxmana	ST(Kolha)	do	do	do	do	do	do	558/9	do	0.25	0.25
54	289/14	Sambhari Munda w/o-Bahana	ST(Kolha)	do	do	do	do	do	do	558/18	do	0.31	0.31
55	290/14	Shibacharan Gagarai	Kolha	do	do	do	do	do	do	558/8	do	0.28	0.28
56	291/14	Subuni Munda w/o- Tarem	Kolha	do	do	do	do	do	do	558/6	do	0.05	0.06
57	292/14	Charan Munda S/o- Sidu	Kolha	do	do	do	do	do	do	558/7	do	0.14	0.14
58	293/14	Ramchandra Munda S/o-Sidu	Kolha	do	do	do	do	do	do	558/4 559/2	do	0.12 0.30	0.42
59	294/14	Biranchi Naik S/o- Bydhar	ST (Bhuyan)	Jhumpura	Gumura	Jamdaipal	do	do	do	166/1	do	0.20	0.20
60	295/14	Chhatara Munda S/o- Mohan	Kolha	Joda	Bhadrasahi	Suyabahal	do	do	do	0/16 0/18	do	0.27	0.55
61	296/14	Ram Champia S/o- Mohan	Kolha	do	do	do	do	do	do	0/27	do	0.08	0.08

62	297/14	Suren Munda S/o- Gura	Kolha	do	do	do	do	do	R.F	0/25	do	2.59	2.59
63	298/14	Nanika Munda S/o- Asish	Kolha	do	do	do	do	do	R.F	0/15 0/17	do	0.31 0.28	0.59
64	299/14	Sukurtal Munda W/o- Gura	Kolha	do	do	do	do	do	R.F	0/13 0/23	do	0.14 1.06	1.20
65	300/14	Lalmohan Champia	Kolha	do	do	do	do	do	R.F	0/23	0.41		0.41
66	301/14	S/o- Duka Lalit Champia S/o- Mate	Kolha	do	do	do	do	do	R.F	0/29	do	0.11	0.11
67	302/14	Raiban Munda S/o- Ajban	Kolha	do	do	do	do	do	R.F	0/19 0/5 0/56 0/63	do	0.33 0.74 0.54 1.26	3.68
68	303/14	Chakra Munda S/o- Mangal	Kolha	do	do	do	do	do	R.F	0/39 0/9 0/60 0/55	do	0.17 0.33 0.62 0.44	1.56
69	304/14	Kanhai Munda S/o- Gura	Kolha	do	do	do	do	do	R.F	0/44	do	1.01	1.01
70	305/14	Deban Munda S/o- Mangal	Kolha	do	do	do	do	do	R.F	0/38 0/7 0/61 0/62 0/54	do	0.15 0.41 0.62 0.33	1.95
71	306/14	Ajit Munda S/o- Bana	Kolha	do	do	do	do	do	R.F	0/24 0/22 0/14 0/2 0/43	do	1.83	4.92
72	307/14	Kancra Munda S/o- Mangal	Kolha	do	do	do	do	do	R.F	0/37 0/8 0/59 0/53	do	0.19 0.26 0.58 0.46	1.49
73	308/14	Rajen Munda S/o- Sunaram	Kolha	do	do	do	do	do	R.F	0/1 0/58	do	1.39	1.65
74	309/14	Gopal S/o- Mangal	Kolha	do	do	do	do	do	R.F	0/12 0/36 0/30	do	0.38 0.25 0.53	1.16
75	310/14	Parsingh Munda S/o- Banemali	Kolha	do	do	do	do	do	R.F	0/28 0/48	do	0.35	1.56

76	311/14	Janga Tiriya W/o- Baja	Kolha	do	do	do	do	0/4	do	0.35	0.36	
77	312/14	Binu Munda S/o - Lebbe	Kolha	do	do	do	do	0/72	do	0.17	0.17	
78	313/14	Charam Munda S/o- Raya	Kolha.	do	do	do	do	0/45	do		0.47	0.47
79	314/14	Mangal Munda S/o- Sukuram	Kolha	do	do	do	do	0/33 0/49 0/45	do	0.59	2.43	0.65 1.19
80	315/14	Gurudev Munda S/o- Sunaram	Kolha	do	do	do	do	0/22 0/11	do		1.69	1.39 0.30
81	316/14	Naran Champia S/o- Duka	Kolha	do	do	do	do	0/42	do		0.42	0.42
82	317/14	Rastika Champia S/o- Gura	Kolha	do	do	do	do	0/78 0/73 0/76 0/81 0/80	do		1.30	0.13 0.28 0.24 0.47 0.18
83	318/14	Sukumara Munda W/o- Sunia	Kolha	do	do	do	do	0/35 0/10 0/3	do		0.74	0.33 0.21 0.2
84	319/14	Ladura Champia S/o- Gura	Kolha	do	do	do	do	0/77 0/41 0/74 0/82 0/31	do		1.39	0.13 0.28 0.34 0.46 0.18
85	320/14	Manika Cmahpia S/o- Gura	Kolha	do	do	do	do	0/21 0/75 0/40 0/25 0/79	do		1.29	0.23 0.24 0.13 0.51 0.18
86	321/14	Ramdas Munda S/o- Sukuram	Kolha	do	do	do	do	0/34 0/57 0/50 0/47	do	0.61	2.68	0.21 0.78 1.08

ANNEXURE - 2

PROCEEDING OF THE S.D.L.C. (FR) MEETING HELD ON 20.12.2014 AT 12.30 P.M. IN THE OFFICE CHAMBER OF SUB-COLLECTOR, KEONJHAR.

The Sub-divisional level committee meeting on forest rights has been held on 20.12.2014 at 12.30 P.M in the office chamber of the Sub-collector, Keonjhar. The Sub-Collector presided over the meeting. The participants of the meeting is at Annexure-I.

At the outset, the Chairman welcomed all participants and thanked all members for their heartiest cooperation in implementing the F.R.A in the Sub-division. Thereafter the agenda wise discussion was made as follows:-

1) Confirmation of the proceedings of the S.D.L.C (FR) Meeting held on 27.09.2014.

It is seen that no objection to the proceeding of the SDLC (FR) meeting held on 27.09.2014 has been received from any quarters. Hence the proceeding of the meeting is taken to be confirmed.

2) Diversions proposal of M/S OMC Ltd. In village Suakati, Daanla and Gondhamardan Reserve Forest under Banspal Block

The proposal for diversion of forest land towards use of none forest purpose under the Forest conservation Act.1980 easuing compliance of schedule Tribe and Traditional Forest Dwellers (recognition of forest Right Act 2006) of M/s OMC Ltd. For Mining activities in Gondhamardan Block-A Iron Ore Mines submitted by the Tahasildar Banspal vide letter No. 2767/ Dated 19.12.2014 along with the Gramsabha resolution copy and certificate on compliance of ST & OTFD (RFC) Act 2006 duly signed by the Tahasildar, Banspal and Forest Range Officer BJP Range Anjar has been discussed. The details of village wise as follows:

Name of the village/ Mouza	Extent of land apply in hect.	Kissan of land	Date of Grama sabha when the diversion proposal approved	No. of voters as per Elect oral Roll	No. of voters signed in Grama sabha	Whether genuineness of voters verified with reference of Sl.No. of Electoral roll by authorized Govt. official in Gramsabha	Whether joint verification certificate is countersigned by the Chairman SDLC	Previously Gramasabha he concerned vill where provision Act was discus
Daanla	121.4192 ha.	Jungle	16.12.14	813	557	Yes	Yes	20.4.08-FR con and discussion FR Act. 12.10.14 Aw about FR Act.
Suakati	9.7300 Ha.	Jungle	10.11.14	1688	1086	Yes	Yes	27.4.08 Fr Cor and discussion FR Act. 17.10.14 Aw about FR Act.
Gandhamardan R.F	388.5980 Ha.	R.F						
	510.7472				213			

As per revised guidelines of Ministries of Forest and Environment department Govt. of India communicated vide letter No. 11-9/98-FC (Pt) Dated 05.02.2013 and letter No.17446 Dated 21.08.2013 of Govt. In Forest & Environment Department Govt. of Odisha the requirement of obtaining consent of concerned Gramasabha have been exempted in case of linear project unless recognised Rights of PTG/PAC are affected. Accordingly the diversion proposal has been passed by SDLC and also given followings.

- a) The complete process for identification and settlement of rights under the FRA has been carried out for the entire 519.7472 hectares of Forest land proposed for diversion in village Daanla (121.4192 Ha.) Suakati (9.7300 hect.) and Gandhamardan R.F 388.5980 Ha. as revealed from the proceeding of the respective Gram sabha. A copy of proceedings of FRC(s), Gram Sabha(s) and SDLC are enclosed.
- b) The proposal for such diversion in vernacular /Local language have been placed before each concerned Gram Sabha of Forest Dwellers, who are eligible under the FRA as revealed from the proceedings of the respective Gram Sabha.
- c) Each of the concerned Gram Sabha has certified that all formalities /processes under the FRA have been carried out, and that they have given their consent to the proposed diversion and the compensation and ameliorative measures, if any having understood the purpose and the details of proposed diversion.
- d) It reveals from the enquiry report furnished by Revenue & Forest personnel the discussion and decisions on such proposal had taken place only when there was a quorum of minimum 50% of the members of Gram Sabha.
- e) It reveals from the enquiry report furnished by Revenue & Forest personnel that no such facilities managed by the Govt. As required under section 3(2) of the FRA requiring diversion of Forest land exist within the applied area as.
- f) The right of PTG and PAC where applicable have been specifically safeguarded as per section 3(1) (e) of the FRA as reveals from the enquiry report furnished by Revenue & Forest personnel.
- g) Further it reveals from the proceeding of the Gram Sabha of villages that no ST or OTFD were in possession of the forest land proposed for diversion before 13.12.2005.
- h) Further it reveals from the Gramasabha proceeding of 02 villages that no tribal or OTFD are presently residing nor any title of rights has been granted under the ST & OTFD (RFR) Act,2006 to any tribal or OTFD on the Forest land proposed for diversion and that the proposed diversion does not in any manner affect their livelihood.

Lastly the meeting ended with a vote of thanks to the chair and participants.

AK
Kamakhya Sadak
Bhubaneswar

[Signature]
Sub-Collector Kapatla
Cum-Chairman SDLC

OFFICE OF THE SUB-COLLECTOR KEONJHAR

Memo No.5000

Date.20.12.2014

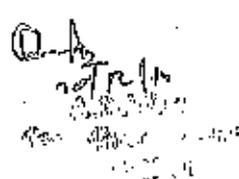
Copy submitted to the Collector and District Magistrate Keonjhar for favour of kind information and necessary action.

Copy forwarded to all members of SDLC (FR) Keonjhar for information.

Copy along with diversion proposal submitted to the PA ITDA, Keonjhar Cum-District Nodal Officer (FR) for information and necessary action.

Copy forwarded to all BDOs/all Tahasildars of Sadar Sub-Division /Special Officer JDA Gonasika for information and necessary action.


Sub-Collector, Keonjhar
Cum-Chairman, SDLC


District Nodal Officer (FR)
Keonjhar

Members present.

1. Sub-Collector, Keonjhar Cum-Chairman SDLC (FR)
2. Smt. Shakuntal Dehury, PS member Talakainsiary G.P
3. Special Officer ITDA Keonjhar
4. A.D.W.O. Sadar, Keonjhar.
5. W.E.O. Sadar Block Keonjhar.
6. W.E.O. Ghatagaon Block
7. W.E.O. Saharpada Block
8. W.E.O. Telkoi Block
9. W.E.O. Harichandanpur. Block
10. W.E.O. Banspal .
11. W.E.O. Patna
12. G.P.E.O I/C Banspal


adn/14
A.D.W.O
Keonjhar Sadar
Keonjhar

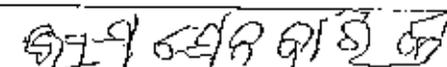
ANNEXURE-3

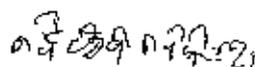
ENQUIRY REPORT ON DIVERSION OF FOREST LAND FOR NON FOREST PURPOSE ENSURING COMPLIANCE OF SCHEDULE TRIBE AND OTHER TRADITIONAL FOREST DWELLERS (RECOGNISATION OF FOREST RIGHT) ACT, 2006 AND AMENDMENT RULE, 2012.

1	Name of the project/User Agency and purpose of Diversion	M/S Odisha Mining Corporation Limited, Keonjhar, Odisha
2	Name of the project and purpose of Diversion	M/S Odisha Mining Corporation Limited. For operation of Iron Ore Mines in Block-A Village Suakati and Danla
3	Name of the village(s) and R.F area covered under diversion proposal (in hectares)	Village- Suakati and Danla
4	Name of the Grampanchayat	Suakati
5	Name of the Tahasil	Banspal Tahasil, Dist-Keonjhar.
	Extent of Forest land under Diversion	Hc 519.7472
a	Revenue Forest : Area in Acre/Hectres (Details of Land Schedule & Map is Annexed as per Format-I)	Revenue Forest - Hc 33.6134 P.R. F area Hc 486.1340 Total Hc 519.7472
b	Reserved Forest : Area in Acre/Hect (Map to be enclosed)	Hc 486.1340
c	Total Area : in Acre/Hectre	Hc 519.7472
7	If any claims received under Forest Right Act, 2006 out of above diversion proposal	Nil
1	If yes give details of claims received (to be enclosed in Format-II & III)	Nil
a	Total claims approved in the District Level committee out of the above diversion proposal	Nil
i	For Revenue Forest (in Acre/Hect)	Nil
ii	For Reserved Forest (In acre/Hect)	Nil
b	Balance area for diversion along with map	Nil
(i)	Revenue Forest (in Acre/Hectre)	Suakati-9.7300+Danal- 23.8832 =33.6132
(ii)	Reserved Forest (in Acre/Hectre)	Hc 486.1340
iii	If No, joint field verification by Revenue & Forest personnel regarding forest Right claims, if any for individuals/community in the proposed diversion area	Joint filed enquiry conducted. No such claim is pending with the proposed diversion area.

	Whether proposal for such diversion of forest land have been placed before each of the Gramsabha of Forest Dwellers who are eligible under Forest Right Act & details of project and its implication have been explained to them in local language	Yes
b	Whether such discussion and decision on such proposal had taken place with a quorum of minimum 50% of members of the Gramsabha present or not	Yes
c	Whether right of primitive Tribal Groups and pre-agriculture community have been specifically safe guarded as per section 3(1)(e) of Forest Right Act	Yes
d	Whether the diversion of Forest land for facilities managed by Government as required u/s 3(2) of the Forest Right Act (if any) have been completed and that the Gramsabha has consented to it	No such claim exist within the applic area for diversion
9	Documents to be enclosed	
a	Proposed land schedule and Map for diversion	Yes, land Plan and Land schedule attached
b	Gramsabha resolution in vernacular language and English Translation	Yes, Attached
c	Any other documents	Photo copy of the Gramsabha is enclosed.
10	Recommended for issue of compliance certificate under forest Right Act, 2006 and Amendment Rules, 2012 for proposed diversion of forest land measuring lic 519.7472 (including safety zone) for non forest purpose i.e mining and safety zone purpose in favour of M/s Odisha Mining Corporation Ltd.	


 President, F.R.C, Suakati


 Secretary F.R.C, Suakati


 President, F.R.C, Danla

Secretary F.R.C, Danla


 Revenue Inspector,


 W.E.O, Banspal


 Range Officer, B.J.P. Range


 Tahasildar, Banspal
BANSPAL

VERIFICATION CERTIFICATE.

1. Certified that more than 64.33 % of voters of village Suakati have attended the Gramsabha held on 10.11.2014 and signed the resolution copy. Out of total voters 1688 of village Suakati, 1086 voters were present in the Gramsabha and signed the resolution before P.E.O in which 505 voters were women.

Total Voters of Suakati village- 1688

Voters present and signed Gramsabha resolution -1086

Female Voters present in the Gramsabha -505

2. Certified that serial no. of the Electoral Roll have been mentioned against the signature /L.T.I of the Gramsabha resolution which was signed in presence of P.E.O.

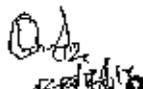
3. The signature/L.T.I of the voters was verified with reference to electoral roll and the certificate thereon has been furnished in each page of the Gramsabha resolution.

4. Certified that the revenue village Suakati and Danla are the adjoining village of Reserve Forest Gandhamardan. The villagers of the above two village are not depend over the reserve forest are for their livelihood.

4. Certified that the ST and OTFD(RFR) Act,2006 and amendment Rule,2012 has been ensured in respect of concerned village and there is no claim either individual or community on the forest land proposed for diversion before 13.12.2005.


TAHASILDAR
BANSPAL


SUB-COLLECTOR,
KEONJHAR.


Keonjhar Sadar
Keonjhar

ANNEXURE - 5

VERIFICATION CERTIFICATE.

1. Certified that more than 68.51% of voters of village Danla have attended the Gramsabha held on 16.12.2014 and signed the resolution copy. Out of total voters 813 of village Danla, 557 voters were present in the Gramsabha and signed the resolution before P.E.O in which 223 voters were women.

Total Voters of village Danla - 813

Voters present and signed Gramsabha resolution -557

Female Voters present in the Gramsabha - 223

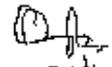
2. Certified that serial no. of the Electoral Roll have been mentioned against the signature /L.T.I of the Gramsabha resolution which was signed in presence of P.E.O .

3. The signature/L.T.I of the voters was verified with reference to electoral roll and the certificate thereon has been furnished in each page of the Gramsabha resolution .

4. Certified that the revenue village Suakati and Danla are the adjoining village of Reserve Forest Gandhamardan. The villagers of the above two village are not depend over the reserve forest are for their livelihood.

4. Certified that the ST and OTFD(RFR) Act,2006 and amendment Rule,2012 has been ensured in respect of concerned village and there is no claim either individual or community on the forest land proposed for diversion before 13.12.2005.


TAHASILDAR
BANSPAL
BANSPAL


20/12/14
A.D.W.O.
Keonjhar Sadar
Keonjhar

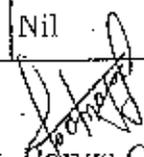

SUB-COLLECTOR,
KEONJHAR.

ANNEXURE - 6

FORMAT-II

A. FOR REVENUE FOREST LAND

Mouza	Name of the Claimant under F.R Act	Khata No	Plot No	Area	Whether approved in FRC	Whether approved in SDLC	Whether approved in District Level Committee	Remark
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil


 Forest Range Officer
 B.J.P Range
 Range Officer
 B.J.P. Range


 Tahasildar
 Banspal
 BANSPAL

FORMAT-III

B. FOR RESERVE FOREST LAND

Name of the Reserve forest	Name of the Claimant under F.R Act	Area	Whether approved in FRC	Whether approved in SDLC	Whether approved in District Level Committee	Remark
Nil	Nil	Nil	Nil	Nil	Nil	Nil


 Forest Range Officer
 B.J.P Range
 Range Officer
 B.J.P. Range


 Tahasildar
 Banspal
 BANSPAL


 20/11/14
 A.D.W. @
 Keonjhar Sadar
 Keonjhar


 SUB-COLLECTOR,
 KEONJHAR.

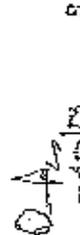
LAND SCHEDULE

LAND SCHEDULE OF FOREST AREA WITHIN THE MINING LEASE AREA OF THE GANDHAMDAN BLOCK -A OF ODISHA MINING CORPORATION									
SL NO	VILLAGE	KHATA NO	STATUS	PLOT NO	KISSAM	AREA	Area of lease	Revenue Forest	P.R.F/R.F reported area
1	SUAKATI	116	ABADA JOGYA ANABADI	4	JUNGLE	1.0900	1.0900	1.0900	0.0000
2		116	ABADA JOGYA ANABADI	6	JUNGLE	0.5400	0.5400	0.5400	0.0000
3		116	ABADA JOGYA ANABADI	203	JUNGLE	11.0400	3.5400	3.5400	0.0000
4		116	ABADA JOGYA ANABADI	476	JUNGLE	14.5600	4.5600	4.5600	0.0000
					Total	9.7300	9.7300	9.7300	
1	DANLA	180	ABADA JOGYA ANABADI	893	JUNGLE -1	3.5200	3.3632	3.3632	0.0000
2		180	ABADA JOGYA ANABADI	922	JUNGLE -2	0.4200	0.4200	0.4200	0.0000
3		180	ABADA JOGYA ANABADI	924	JUNGLE -2	0.3300	0.3300	0.3300	0.0000
4		180	ABADA JOGYA ANABADI	2030	JUNGLE -1	14.4000	6.6848	6.6848	0.0000
5		178	RAKHIT	1028	GRAMYA JUNGLE	16.8500	13.0852	13.0852	0.0000
					Total	23.8832	23.8832	23.8832	
P.R. F in Danla									
Gandhamardan R.P.F									
TOTAL P.R.F/R.P.F									
GRAND TOTAL FOREST AREA FOR DIVERSION									
								97.5360	
								388.5980	
								486.1340	
								519.7472	


TAHASILDAR
BANSPAL


Range Officer
B.J.P. Range


SUB-COLLECTOR,
KEONJHAR.


A.D.W.O.
Keonjhar Sadar
Keonjhar

କାଳକ୍ଷାୟକାଳ ବନିଛି ଭୁବନେଶ୍ୱର ଅଞ୍ଚଳାଞ୍ଚଳ କା କଳକ୍ଷାୟ କୁ 'ସୁଖକାଳ'ର
 ଉପାଦାନ ବନିଛି କଳକ୍ଷାୟ କାଳକ୍ଷାୟ । ସୁଖ କେଳକ୍ଷାୟ ସୁଖକାଳ
 କୁ ପିଲାକାଳ 'ସୁଖକ' ସହା ସାଧକ କଳକ୍ଷାୟ ।

padma nava sukh
 କଳକ୍ଷାୟ ଅଞ୍ଚଳାଞ୍ଚଳ

ଶ୍ରୀମତୀ ପଦ୍ମା ନାୟକ
 Executive Officer
 Suakati G.P.

Wakro
 16/12/2014
 Section Officer
 Baripada Block

Wakro
 16/12/2014
 Welfare Extension Officer
 Baripada Block

Wakro
 16/12/2014
 Welfare Extension Officer
 Baripada Block

ଶ୍ରୀମତୀ ପଦ୍ମା ନାୟକ
 କଳକ୍ଷାୟ

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ସୁଖକାଳ

ଶ୍ରୀମତୀ ପଦ୍ମା ନାୟକ

ଶ୍ରୀମତୀ ପଦ୍ମା ନାୟକ
 ସହାଗଣ

ଉପାଦାନ ଅଞ୍ଚଳାଞ୍ଚଳ କଳକ୍ଷାୟ
 ଅଞ୍ଚଳାଞ୍ଚଳ

ଶ୍ରୀମତୀ ପଦ୍ମା ନାୟକ

ଉପାଦାନ ଅଞ୍ଚଳାଞ୍ଚଳ କଳକ୍ଷାୟ
 ଅଞ୍ଚଳାଞ୍ଚଳ

Time copy

Wakro
 Executive Officer
 Suakati G.P.

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ENGLISH TRANSLATION OF PALLISABHA MEETING DATED 16.12.2014
PALLISABHA MEETING.

ANNEXURE-

Village:- DANLA
Grampanchayat- SUAKATI
Date :- 16.12.2014.
Place:- DANLA PLAY GROUND
Time:- 10.00 A.M

A Gramsabha was conducted today i.e on 16.12.2014 at 10.00 A.M at village- PLAY GROUND under the Chairmanship of Maghu Naik, Ward Member and in presence of the following Govt. Officials/ Persons.

1. Tahasildar, Banspal
2. Additional Tahasildar, Banspal
2. Block Development Officer-cum-Nodal Officer, Banspal,
3. Range Officer, BJP Range,
4. Sarapancha, Suakati G.P
5. W.E.O, Banspal Block,
6. P.E.O, Suakati G.P
7. Revenue Inspector, Suakati.
8. President of F.R.C, Suakati
9. Secretary of F.R.C, Suakati

In the meeting, out of the 813 voters 557 adult voters were present and which is about 68.51%. In the Gramsabha meeting the following issues were discussed.

M/S- Odisha Mining Corporation Ltd, Keonjhar has applied for diversion of the forest land measuring Hc 121.4192 for non forest purpose i.e Mining Operation in Gandhamardan Block-A and the land schedule was exhibited to the villagers.

1. The aim and objective of the said diversion proposal was discussed thoroughly in the Gramsabha meeting.
2. The Rules and Regulation of the Schedule Tribe and other Traditional Forest Dwellers (Recognition of Forest Right) Act, 2006 and Rules, 2012 was discussed deliberately in the said meeting.
3. After implementation of the Forest Right Act, 2006 to create consciousness among the villagers, pallisabha has been made in the said village on 20.04.2008 and 12.10.2014.
4. In this village no Primitive Tribal Group (P.T.G) and Pre-Agricultural Communities (P.A.C) exists.
5. The villagers agreed that no schedule Tribe and other traditional forest dwellers are cultivating, residing and doing traditional activity within the proposed area to be diverted. The area proposed for diversion has not been settled in favour of any individual and Community under Forest Right Act, 2006 and no claim application is pending.
6. In this village no application has been received under F.R.A, 2006.
7. The villagers also passed resolution that the proposed diversion of jungle kisan land is coming within the P.L/M.L lease hold area of M/S Odisha Mining Corporation Ltd.
8. Certified that the revenue village Suakati and Danla are the adjoining village of Reserve Forest Gandhamardan. The villagers of the above two village are not dependant over the reserve forest for their livelihood.
9. Hence it was unanimously resolved in the Gramsabha for proposed diversion of Hc 121.4192 forest land for non forest purpose i.e Mining operation by M/S. Odisha Mining Corporation Ltd.

The meeting was ended with vote of thanks to Chair , all voters of village Suakati , Sarapancha Suakati G.P and all Govt Officials .

Sd/-
(Ward Member)
Chairman of the meeting

Sd/-
Sarapancha ,Suakati G.P

Sd/-
President , Forest Right Committee

Sd/-
Secretary , Forcst Right Committee

Sd/-
P.E.O, Suakati G.P

Sd/-
Revenue Inspector, Suakati .

Sd/-
W.E.O ,Banspal Block

Sd/-
Range Officer, BJP Range

Sd/-
Block Development Officer, Banspal

Sd/-
Addl. Tahasildar, Banspal

17/9/2009
Krishna Behara
Tegomati Samapat
Patel Samapat

Madan K. Singh
Babamohan Prachan
Bhawanatha Dehuay

Sanjay Singh
Rajendra Singh

Ratnendra Singh
Panchanabhai Singh
Juni Dehuay

Anand Singh
Manoj Dehuay
Dulha Dehuay Samapat

Prakash Singh
Rajendra Singh
Rajendra Singh

Sanjay Singh
Rajendra Singh
Rajendra Singh

Rajendra Singh
Rajendra Singh

Rajendra Singh
Rajendra Singh

Rajendra Singh
Rajendra Singh

Rajendra Singh
Rajendra Singh

ତାଙ୍କର ଅଧିକାର କମିଟିର ବିବରଣୀ

ଆଜି ତା ଉପାଧୀ ୨୦୦୮ ଚିତ୍ର ଗ୍ରାମସଭା ଦ୍ଵାରା ବିକାଶିତ ତାଙ୍କର ଅଧିକାର କମିଟି
 ନିମ୍ନଲିଖିତ ସମସ୍ତ ସଦସ୍ୟଙ୍କର ଠିକଣା ଓ ଶ୍ରୀ/ଶ୍ରୀମତୀ ନାମ ଲିଖିତ କରାଯାଇଛି ।
 ଉପରୋକ୍ତରେ ଆବୁସିଦ୍ଦିକ କରାଗଲା । ଆବୁସିଦ୍ଦିକ କରାଗଲା ସର୍ବସମ୍ମତି ବାଦନ
 ସଭା/ସଭାପା ମାନଙ୍କ ମଧ୍ୟରେ ଶ୍ରୀ/ଶ୍ରୀମତୀ ନାମ ଲିଖିତ କରାଯାଇଛି ।
 କମିଟିର ସଭାପତି ଓ ନା ଶ୍ରୀ/ଶ୍ରୀମତୀ ନାମ ଲିଖିତ କରାଯାଇଛି ।
 ଚରଣକାନ୍ତ ତରଫରୁ ଚଳେଇ ନିରାଗତ । ଶ୍ରୀ ବିପଦୀ ଠିକଣା କମିଟିର
 ସ୍ଵତନ୍ତ୍ର ଭାବରେ ଅଧିକାର କମିଟିର ପଠାଉବାଦୀ ନିରାଗତ ନିରାଗତ ।
 ନାମ ଲିଖିତ କରାଯାଇଛି ।

କ୍ର.ସଂଖ୍ୟା	ଉପସ୍ଥିତସଭା/ସଭାପତିର ନାମ	ସ୍ଥାନ
୧	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୨	ଶ୍ରୀମତୀ ସୁମିତ୍ରା ଦେବୀ	ପୁରୀ
୩	ଶ୍ରୀମତୀ ଶର୍ମିଷ୍ଠା ଦେବୀ	ପୁରୀ
୪	ଶ୍ରୀମତୀ ସୁମିତ୍ରା ଦେବୀ	ପୁରୀ
୫	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୬	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୭	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୮	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୯	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୦	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୧	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୨	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୩	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୪	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୫	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୬	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୭	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୮	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୧୯	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ
୨୦	ଶ୍ରୀ ବିପଦୀ ତରଫରୁ	ପୁରୀ

ଆବୁସିଦ୍ଦିକ ସଭାପତିଙ୍କୁ ବିକାଶିତ କେଉଁ କିମ୍ବା ନିରାଗତ
 ନିରାଗତ
 ସଭାପତି

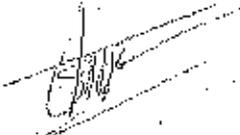
ବିଜ୍ଞପ୍ତି

ANNEXURE-10

ଏତଦ୍ୱାରା ଶୁଆକାଟୀ ଗ୍ରାମପଞ୍ଚାୟତର ଶୁଆକାଟୀ ଓ ଦଅଁଳା ଗ୍ରାମର ୧ ଭୋଟର ମାନଙ୍କୁ ଜଣାଇ ଦିଆଯାଇଅଛି ଯେ, ଅତିରିକ୍ତ ଜିଲ୍ଲାପାଳ କେନ୍ଦୁଝରଙ୍କ ସଂଖ୍ୟା ୧୮୫୦/ରାଜସ୍ୱ ଓ ପଞ୍ଚାୟତ ସମିତି କାର୍ଯ୍ୟାଳୟ ପତ୍ର ସଂଖ୍ୟା ୩୪୧୭, ୧୧.୧୦.୨୦୧୪ ରିଶ ଅନୁଯାୟୀ ଜଙ୍ଗଲ ଜମିକୁ ଅଣଜଙ୍ଗଲ ଜମିରେ ପରି କରିବା ପାଇଁ ନିମ୍ନ ସୂଚୀ ଅନୁଯାୟୀ, ପଲ୍ଲୀ ସଭାର ଚାରିଖା ଆର୍ଯ୍ୟ୍ୟ କରାଯାଇଅଛି ।

ଏଣୁ ପଲ୍ଲୀସଭାରେ ଗ୍ରାମର ସମସ୍ତ ଭୋଟର, ଗ୍ରାମର ଜଙ୍ଗଲଜମି କମିଟିର ସ ସଦସ୍ୟ ଉପସ୍ଥିତ ରହି, ଜଙ୍ଗଲ ଜମିକୁ ଓଡ଼ିଶା ଖଣି ନିଗମ ଲିଃ ଅଣ ଜଙ୍ଗଲ ଜମି ଭାବ ବ୍ୟବହାର କରିବ କି ନାହିଁ ଆଲୋଚନା କରିବା ହେବେ ଯଦି କୌଣସି ବ୍ୟକ୍ତିର କ ଖଣି ଅଞ୍ଚଳ ମଧ୍ୟରେ ରହୁଥାଏ ଆବଶ୍ୟକ ପ୍ରମାଣ ସହ ଉକ୍ତ ପଲ୍ଲୀ ସଭାରେ ଲି ଅଭିଯୋଗ କରି ପାରିବେ ।

ଗ୍ରାମ ପଞ୍ଚାୟତ	ରାଜସ୍ୱ ଗ୍ରାମ	ପଲ୍ଲୀ ସଭାର ଚାରିଖା	ପଲ୍ଲୀ ସଭାର ସ୍ଥାନ	ଜଙ୍ଗଲ ଜମିର ପରିମାଣ	ଓ.ଏ. ନଂ
ଶୁଆକାଟୀ	ଶୁଆକାଟୀ	ଡା. ୧୦.୦୦ ଘଟିକା	ଶୁଆକାଟୀ ଗ୍ରାମର ମୁଖ୍ୟ ସାହି କୁବ ଘର ସମ୍ମୁଖ	ହେ ୯.୭୩୦୦	
ଶୁଆକାଟୀ	ଦଅଁଳା	ଡା. ୧୭.୧୨.୩୫ ଓ ୧୦.୦୦ ଘଟିକା	ଦଅଁଳା ଗ୍ରାମର ମଞ୍ଚ ଦରବାର	ହେ ୧୨.୧.୪୧୯୨	


 ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗା:

ମହାଶୟ,

ଶ୍ରୀଯୁକ୍ତ ଗୋଷ୍ଠି ଉନ୍ନୟନ ଅଧିକାରୀ,
ପଞ୍ଚାୟତ ସମିତି ବାଣସାଳ.

ବିଷୟ : ଜଙ୍ଗଲ ଜମିକୁ ଅଣଜଙ୍ଗଲ ଭବେ ଘୋଷଣା କରିବା ନିମନ୍ତେ ପଲ୍ଲୀ ସଭା

ସୂଚିତ ପତ୍ର : ଆଦିତିକ ନିଲ୍ମାପନ, ଲେନ୍ଦୁଝର ପତ୍ର ସଂଖ୍ୟା ୧୮୫୦/ଗାଜସ
ଗୋଷ୍ଠି ଉନ୍ନୟନ ଅଧିକାରୀ ପଞ୍ଚାୟତ ସମିତିଙ୍କ ପତ୍ର ସଂଖ୍ୟା ତା ୧୧.୧୦.୨୦

ମହାଶୟ,

ଜମିର ଗୁଣାବଳୀ ପତ୍ର ସଂଖ୍ୟା ଅନୁସାରେ ଯୁକ୍ତ ଜଙ୍ଗଲ ଜମିକୁ ଶୁଣି ଅଧିକାରୀଙ୍କ ଦ୍ଵାରା ଆଣ ଜଙ୍ଗଲ
ହୁସାରିବ ବ୍ୟବହାର କରିବା ଯାକି ଗ୍ରାମ ପଞ୍ଚାୟତର ସ୍ଵାଧୀନତାପତ୍ର ସରପଞ୍ଚଙ୍କ ମାଧ୍ୟମରେ ପଲ୍ଲୀ ସଭାର ଚାରିଖ
ସମୟ ଓ ସ୍ଥାନ ଧାର୍ଯ୍ୟ କରାଗଲା ।

ଗ୍ରାମ ପଞ୍ଚାୟତ	ଗାଜସ ଗ୍ରାମ	ପଲ୍ଲୀ ସଭାର ଚାରିଖ ଓ ସମୟ	ପଲ୍ଲୀ ସଭାର ସ୍ଥାନ	ଜଙ୍ଗଲ ଜମିର ପରିମାଣ	ଓ.ଏ ପ
ଶୁଆକାଟୀ	କଞ୍ଚିଳା	ତା ୧୭.୧୨.୧୪ ଓ ୧୦.୦୦ ଘଟିକା	ବଞ୍ଚିଳା ଗ୍ରାମ	ହେ ୧୨୧.୪୧୯୨	

ସରପଞ୍ଚ ଶୁଆକାଟୀ

ତା ୧୦/୧୨/୧୪

ପରିପତ୍ରାଙ୍କ ନଂ ୩୭

ଏହାର ଏକନିତା ନକଲ ପଲ୍ଲୀସଭାରେ ଉପସ୍ଥିତ ସଭ୍ୟମାନେ ଓ ନିହିତ ସଭ୍ୟମାନଙ୍କ ଆଗରେ
ଲେନ୍ଦୁଝର ସଭା ସମୟ ଅନୁଷ୍ଠାନ ନିମନ୍ତେ ପ୍ରେରଣ କରାଗଲା ।


ଶୁଆକାଟୀ
ତା Suakat G.P

ପରିପତ୍ରାଙ୍କ ନଂ

ଏହାର ଏକନିତା ନକଲ ଉପକ୍ରମାପନ, ଲେନ୍ଦୁଝର ସଭା ସମୟ ଅନୁଷ୍ଠାନ ନିମନ୍ତେ ପ୍ରେରଣ ହେଲା ।

ସରପଞ୍ଚ ଶୁଆକାଟୀ

ତା

ପରିପତ୍ରାଙ୍କ ନଂ ୩୮

ଏହାର ଏକନିତା ନକଲ ପ୍ରକାଶ ପ୍ରଣାୟକ, ସମଗ୍ର ଆଦିବାସୀ ଉନ୍ନୟନ ସଂସ୍ଥା, ଲେନ୍ଦୁଝର ସଭା ସମୟ ଅନୁଷ୍ଠାନ
ନିମନ୍ତେ ଲାଞ୍ଚାପତ୍ର ନିମନ୍ତେ ପ୍ରେରଣ ହେଲା ।

ସରପଞ୍ଚ ଶୁଆକାଟୀ

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା _____

ଏହାର ଏକକିତା ନକଲ ଉପସ୍ଥିତ ସହଯୋଗ ଓ ବିହିତ ପଦକ୍ଷେପ ପାଇଁ ଜଙ୍ଗଲ ରେଞ୍ଜ ଅଧିକାରୀ, ଭୁଞ୍ଜା କୁଆଙ୍କ
ରିଞ୍ଜ (B.J.P. Range), ଅଞ୍ଜଳ, ନେଲୁଝାଳ ସହଯ ଅବଗତ କିମତେ ପ୍ରେରଣ କରାଗଲା ।

ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା _____

ଏହାର ଏକକିତା ନକଲ ଉପସ୍ଥିତ ସହଯୋଗ ଓ ବିହିତ ପଦକ୍ଷେପ ପାଇଁ ଚନ୍ଦ୍ରଶିଳପାର କାଶପାଳଙ୍କ ସହଯ
ଅବଗତ କିମତେ ପ୍ରେରଣ କରାଗଲା ।

ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା _____

ଏହାର ଏକକିତା ନକଲ ଥାନା ଅଧିକାରୀ, ସରକ ଥାନାଙ୍କ ସହଯ ଅବଗତ କିମତେ ପ୍ରେରଣ କରାଗଲା ।

ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା _____

ଏହାର ଏକକିତା ନକଲ ଥାନା ଅଧିକାରୀ, ନୟାକୋଟ ଥାନାଙ୍କ ସହଯ ଅବଗତ କିମତେ ପ୍ରେରଣ କରାଗଲା ।

ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା _____

ଏହାର ଏକକିତା ନକଲ ଗାଜସ୍ୱ ନିରୀକ୍ଷକ, ଶୁଆକାଟୀଙ୍କ ସହଯ ଅବଗତ କିମତେ ପ୍ରେରଣ କରାଗଲା ।

ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା _____

ଏହାର ଏକକିତା ନକଲ ପଞ୍ଚାୟତ ସମିତି ଅଧ୍ୟକ୍ଷ, କାଶପାଳଙ୍କ ସହଯ ଅବଗତ କିମତେ ପ୍ରେରଣ କରାଗଲା ।

ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ

ପଞ୍ଜୀକୃତ ସମିତି କାର୍ଯ୍ୟକଳ୍ପ, ବାମନପାଳ

ପତ୍ର ସଂଖ୍ୟା 346 ତା. 11.10.2019

ପ୍ରାପ୍ତପୂର୍ଣ୍ଣ

ଶ୍ରୀ ସୁଜ ସରପଞ୍ଚ, ଶୁଆକାଟା ଗ୍ରାମ ପଞ୍ଜୀକୃତ ।

ବିଷୟ -

ନିମ୍ନରେ ପଦ୍ମ ଜଙ୍ଗଲ ଜମିକୁ ଅଣ ଜଙ୍ଗଲ ଉଦ୍ଦେଶ୍ୟରେ ବ୍ୟବହାର ନିମନ୍ତେ ପଲ୍ଲୀ ସଭାରେ ଅନୁମୋଦନ ସମ୍ବନ୍ଧୀୟ ପ୍ରସ୍ତାବ ଗ୍ରହଣ ସମ୍ବନ୍ଧେ ।

ସ୍ଥିତିର ପତ୍ର -

ଅନିର୍ଦ୍ଧିତ ଜିଲ୍ଲାପାଳ, କେନ୍ଦୁଝର କ ପତ୍ର ସଂଖ୍ୟା ୧୮୫୦ / ରାଜସ୍ୱ / ଟା.୨୪.୦୯.୨୦୧୨.

ମହାଶୟ/ ମହାଶୟା

ଉପର ସ୍ଥିତିର ବିଷୟ ପ୍ରତି ଦୃଷ୍ଟି ଆକର୍ଷଣ ପୂର୍ବକ ଜଣାଇବାକୁ ତାହେଁ ଯେ, ନିମ୍ନ ଲିଖିତ ରାଜସ୍ୱ ଗ୍ରାମରେ ସଂପୃକ୍ତ ଶିଳ୍ପ ସଂସ୍ଥା ଦ୍ୱାରା ଜଙ୍ଗଲ ଜମିକୁ ଅଣ ଜଙ୍ଗଲ ଭାବରେ ବ୍ୟବହାର ନିମନ୍ତେ ପଲ୍ଲୀସଭା ଆହୁତ ପୂର୍ବକ ବୈଠକରେ ବିଧି ପୂର୍ବକ ଗ୍ରହଣ ଜରାଜୋରା କରିବା ନିଷ୍ପତ୍ତିର ସହି ନଦଳ ସହ ଅତି କାର୍ଯ୍ୟାଳୟ କୁ ପ୍ରେରଣ କରିବା ହେବେ ।

ଏହି ପଲ୍ଲୀସଭା ବୈଠକ ନିମ୍ନ ବିଧି ପାଳନ ପୂର୍ବକ ଆହୁତ ଆବଶ୍ୟକ ଅଟେ ।

- ୧. ଉକ୍ତ ପଲ୍ଲୀସଭାରେ ଗ୍ରାମର ଭୋଟର ତାଲିକା ଅନୁସାରେ ଥିବା ସମସ୍ତ ଭୋଟରଙ୍କ ଦୁଇ ରୂପାୟୀଣ ରୁ ଉର୍ଦ୍ଧ୍ୱ ସଭ୍ୟ/ସଭା ଉପସ୍ଥିତ ଗଣି ଆବଶ୍ୟକୀୟ ନିଷ୍ପତ୍ତି ଅନୁମୋଦନ କରିବା ହେବେ ।
- ୨. ଉପସ୍ଥିତ ସଭ୍ୟ ସଭ୍ୟାଙ୍କ ମଧ୍ୟରୁ ଏକ ରୂପାୟୀଣ ମହିଳା ସଭ୍ୟା ହେବା ବାଧ୍ୟନୀୟ ।
- ୩. ଜଙ୍ଗଲ ଅଧିକାର ଜମିଟିର ସମସ୍ତ ସଦସ୍ୟ ଉକ୍ତ ପଲ୍ଲୀସଭାରେ ଉପସ୍ଥିତ ଗଣି ଆଲୋଚନାରେ ଅଣ ଗ୍ରହଣ କରିବା ହେବେ ।
- ୪. ସ୍ଥିତିର ଜଙ୍ଗଲ ଜମିକୁ ଖଣି ଅଧ୍ୟାୟକ ଦ୍ୱାରା ଅଣ ଜଙ୍ଗଲ ହିସାବରେ ବ୍ୟବହାର କରିବା ନିମନ୍ତେ ଅନୁମୋଦନ ପ୍ରସ୍ତାବ ଗ୍ରହଣ କରି ପଲ୍ଲୀସଭା ଶାତାରେ ଲିପିବଦ୍ଧ କରିବା ସହ ଏହାର ପାଠ୍ୟ(୦୫) କିତା ନଦଳ ସହ ମୂଳ ରେକର୍ଡର ଅତ୍ର କାର୍ଯ୍ୟାଳୟ କୁ ପ୍ରେରଣ କରିବା ହେବେ । ଏହା ସହ ସଂପୃକ୍ତ ଗ୍ରାମରେ ପୂର୍ବକୁ ଅନୁଷ୍ଠିତ ହୋଇଥିବା ଜଙ୍ଗଲ ଜମି ଅଧିକାର ଜମିଟିର ବୈଠକର ବିବରଣୀର ସହି ନଦଳ ସଂଲଗ୍ନ କିଛି ପଠାଇବା ହେବେ ।
- ୫. ଯଦି କୌଣସି ବ୍ୟକ୍ତି ଉକ୍ତ ଜଙ୍ଗଲ ଜମି ଦଖଲରେ ଅଛନ୍ତି କିମ୍ବା ଜଙ୍ଗଲ ଜମି ଅଧିକାର ଅଧିକାର ମୁତାବକ ଅଧିକାର ପ୍ରାପ୍ତ ହୋଇଅଛନ୍ତି ତେବେ ତାହାର ବିବରଣୀ ଉପରୋକ୍ତ ପଲ୍ଲୀସଭା ବୈଠକ ବିବରଣୀରେ ଲିପିବଦ୍ଧ କରି ଜଣାଇବା ହେବେ ।
- ୬. ପଲ୍ଲୀସଭା ବୈଠକରେ ଉପସ୍ଥିତ ସଭ୍ୟ/ସଭ୍ୟାଙ୍କ ସ୍ୱାକ୍ଷର/ ଟିପ୍ପଟ୍ଟ ବାବଦକୁ ତଥା ସଭ୍ୟ ସଭ୍ୟାଙ୍କ ଉପସ୍ଥାପିତ ଭୋଟରଲିଷ୍ଟ ସହ ମୋଜନ ପୂର୍ବକ ସଂପୃକ୍ତ ପଞ୍ଜୀକୃତ ନିର୍ବାହୀ ଅଧିକାରୀଙ୍କ ପ୍ରମାଣ ପତ୍ର ବୈଠକ ଉପଭାବେ ପଠାଇବା ହେବେ ।
- ୭. ଭାରତ ସରକାରଙ୍କ ଜଙ୍ଗଲ ଓ ପରିବେଶ ବିଭାଗଙ୍କ ଦ୍ୱାରା ପ୍ରେରିତ ଅନୁବେଶାବଳୀ ନିମ୍ନ ମୁତାବକ ନିମ୍ନ ସମୟ ଅବଧି ରେ ପଲ୍ଲୀସଭା ସମାହିତ କରିବା ବାଧ୍ୟନୀୟ ଏବଂ ଭଲ୍ୟାନ ପକ୍ଷେ କାର୍ଯ୍ୟାଳୟର ସକାଶେ ପଦକ୍ଷେପ ବିଧେୟ ।

<u>ଜଙ୍ଗଲ ଜମିର ପରିମାଣ ବା ରକ୍ତ</u>	<u>ଗ୍ରାମ ସଭାର ଆହ୍ୱାନର ସମୟ ଅବଧି</u>
୪୦ ହେକ୍ଟର ପର୍ଯ୍ୟନ୍ତ	୩୦ ଦିନ ମଧ୍ୟରେ
୪୦ ହେକ୍ଟର ରୁ ୧୦୦ ହେକ୍ଟର ପର୍ଯ୍ୟନ୍ତ	୪୫ ଦିନ ମଧ୍ୟରେ
୧୦୦ ହେକ୍ଟର ଏବଂ ତତ୍ପର	୬୦ ଦିନ ମଧ୍ୟରେ

୮. ଆବଶ୍ୟକ ସ୍ତଳେ ଯଦି ଗ୍ରାମରେ ଆନିମ ଜନତାହି କିମ୍ବା ପାରମ୍ପରିକ ବିଦବାସା ବସବାସ କରୁନାହାନ୍ତି ତେବେ ତତ୍ ସଂଲଗ୍ନୀୟ ପ୍ରମାଣ ପତ୍ର ଗ୍ରାମସଭା ବିବରଣୀରେ ସ୍ଥାନିତ କରିବା ହେବେ ।

ଶ୍ରୀ ଉକ୍ତ ବୈଠକରେ ଉପସ୍ଥିତ ରହି ପଦ୍ମାସଭାର ତଦାରଖ କରି
 ଗ୍ରାମସଭାର ସଚିଶେଷ ରିପୋର୍ଟ ଅତ୍ର ଜାଯ୍ୟାଲିୟ ରେ ଦାଖଲ କରିବା ନେବେ ।

କ୍ର.ନଂ	ଗ୍ରାମ ପଂଚାୟତ	ଗାଜସ୍ୱ ଗ୍ରାମର ନାମ	ଶିକ୍ଷ ସଂସ୍ଥା/ଖଣି ସଂସ୍ଥାନ ନାମ	ଜଙ୍ଗଲ ପରିମାଣ	ଜମିର କମିଶ	ଆନୁଷ୍ଠିତ ହେବାକୁ ଥିବା ଗ୍ରାମ ସଭାର/ପଦ୍ମାସଭାର ଶୁଆକାତୀ
୧	ଶୁଆକାତୀ	ଶୁଆକାତୀ	ଓଡ଼ିଶା ଖଣି ନିଗମ ଲିମିଟେଡ୍,	୧୧୯.୭୩୦୦		ଶୁଆକାତୀ
୨	ଶୁଆକାତୀ	କଅଁଳା	ଓଡ଼ିଶା ଖଣି ନିଗମ ଲିମିଟେଡ୍,	୧୧୧୨୧.୪୧୯୨		କଅଁଳା
		ଗହମାବଳ ପ୍ରସାରିତ ସଂରକ୍ଷିତ ଜଙ୍ଗଲ	ଓଡ଼ିଶା ଖଣି ନିଗମ ଲିମିଟେଡ୍, ଶୁଆକାତୀ ମୋଟ	୧୧୩୮୮.୫୯୮୦		ଶୁଆକାତୀ, କଅଁଳା
				୧୧୫୧୯.୭୪୭୨		

ଆପଣଙ୍କ ନିଶ୍ଚିନ୍ତ

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଂସପାଳ

ପରି ପତ୍ର ସଂଖ୍ୟା - 3417 ତା. 14.10.2014

ଏହାର ଏକକିତା ନକଲ ଅତିରିକ୍ତ ଜିଲ୍ଲାପାଳ, କେନ୍ଦୁଝର ଜିଲ୍ଲା ଅବଗତ ତଥା ବିହିତ ପଦକ୍ଷେପ
 ଗ୍ରହଣ କରାଯିବ ବୋଲି ସୂଚନା ଦିଆଯାଉଅଛି ।

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଂସପାଳ

ପରି ପତ୍ର ସଂଖ୍ୟା - 3418 ତା. 14.10.2014

ଏହାର ଏକକିତା ନକଲ ଉପଜିଲ୍ଲାପାଳ କେନ୍ଦୁଝର ଜିଲ୍ଲା ସହୟ ଅବଗତ ନିମନ୍ତେ ପ୍ରେରଣ କରାଯାଉଅଛି ।

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଂସପାଳ

ପରି ପତ୍ର ସଂଖ୍ୟା - 3418 ତା. 11.10.2014

ଏହାର ଏକକିତା ନକଲ ପ୍ରକୃତ ପ୍ରଶାସକ ; ସମନ୍ୱିତ ଆଦିବାସୀ ଉନ୍ନୟନ ସଂସ୍ଥା,
 କେନ୍ଦୁଝର ଜିଲ୍ଲା ସହୟ ଅବଗତ ତଥା ବିହିତ କାର୍ଯ୍ୟାନୁଷ୍ଠାନ ନିମନ୍ତେ ପ୍ରେରଣ କରାଯାଉଅଛି ।

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଂସପାଳ

ପରି ପତ୍ର ସଂଖ୍ୟା - 3419 ତା. 11.10.2014

ଏହାର ଏକକିତା ନକଲ ଜଙ୍ଗଲ ରେଞ୍ଜ ଅଧିକାରୀ (B.J.P Range), ଅଞ୍ଚଳ,
 କେନ୍ଦୁଝର / କେନ୍ଦୁଝର ଜିଲ୍ଲା ବାଂସପାଳ ଓ ଅବଗତ ତଥା ବିହିତ ପଦକ୍ଷେପ ଗ୍ରହଣ
 କରାଯିବ ବୋଲି ସୂଚନା ଦିଆଯାଉଅଛି ।

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଂସପାଳ

OFFICE OF THE TAHASILDAR, BANSPAL, DIST:-KEONJHAR

No. 2205 /Dt 10.10.2014

The Block Development Officer,
Banspal, Dist-Keonjhar.

Sub: Diversion of Forest land measuring Hc.519.7472 for non-forest purpose in Village- Dana/ Suakali by M/S. Odisha Mining Corporation Ltd. Gandhamardan Mines, Suakali under Forest Conservation Act, 1980 ensuring compliance of Schedule Tribes and other Traditional Forest Dwellers (Recognition of Forest Right) Act, 2006.

Ref: Letter No.1850 / Rcv/dt. 24.09.2012 of Additional District Magistrate, Keonjhar.

Sir,

I am to inform you that the Additional General Manager, Odisha Mining Corporation Ltd, Odisha, Bhubaneswar has applied to the Collector, Keonjhar for diversion of the Forest Land (as enclosed in a separate sheet) for non forest purpose i.e for mining operation in Block-A of Gandhamardan Mines and to issue of certificate of Clearance, under Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 . The Collector, Keonjhar has directed to enquire into the matter for ensure the compliance of the schedule Tribes and Other Forest dwellers (Recognition of Forest Right) Act, 2006. To ensure the compliance, you are requested to take step for holding of Gram sabha in each village to obtain the consent of the villagers for such proposed diversion.

Besides this, I am to inform that as per the notification No. 1403/dt. 13.03.2014 issued by the Ministry of Environment & Forest, Govt of India the process should be completed with the fixed time limit and which is as follows

Area up to 40 hect- 30 days

Area above 40 to 100 hectares- 45 days.

Area exceeds 100 hect and above -60 days.

Encl: Land Schedule.

Yours faithfully,

TAHASILDAR, BANSPAL.

OFFICE OF THE COLLECTOR & DISTRICT MAGISTRATE, KEONJHAR.

No. 1850 (Rev) Dt. 24.9.12
To The Tabasildar, Bansapal.

Sub:- Issue of certificate ensuring compliance of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 for diversion of forest land for mining activities in Gandhamardan Block-A Iron Ore Mines.

Sir,
I am to send herewith a copy of the application of the following User Agency who applied for issue of certificates of clearance under Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. You are instructed to enquire the matter as per the instruction communicated earlier to ensure compliance of "ST and Other Forest Dwellers (Recognition of Forest Right) Act, 2006" and submit the enquiry report to the Chairman-cum-Sub-Collector, SDLC, Keonjhar for examination at his level.

Sl. No	Name of the User Agency	Purpose of diversion of forest land	Extent of forest land proposed for diversion	Location of the forest land
1	2	3	4	5
1	M/s O.M.C.Ltd.	For Mining activities in Gandhamardan-Block-A Iron Ore Mines	Ha.519.7472	Daoura-121.4192 Suakali-9.7300 Gandhamardan Proposed Reserved Forest-388.5980

Yours faithfully

Addl. District Magistrate,
Keonjhar

ଶୁଆକାଟୀ ଗ୍ରାମପର୍ଯ୍ୟାୟର କାର୍ଯ୍ୟକ୍ରମ
 ଡି ୧୦ ୨୧ ଡି ୨୧୨୭୦୧୪

- ପ୍ରାଥମିକ - ଡିପାର୍ଟମେଣ୍ଟର ଅଧିକାରୀଙ୍କ ସାହାଯ୍ୟ
- ଦ୍ୱିତୀୟ - ଡି-୧୦୧୧୨୦୧୪ର କର୍ମଚାରୀଙ୍କୁ ଗ୍ରାମପଞ୍ଚାୟତର ସହାୟତା ଦେବା ।

ସମାପ୍ତ,

ଶୁଆକାଟୀ ଗ୍ରାମପର୍ଯ୍ୟାୟର ଶୁଆକାଟୀ ଗ୍ରାମପଞ୍ଚାୟତର ସହାୟତା ଦେବା ଡି-୧୦୧୧୨୦୧୪ର କର୍ମଚାରୀଙ୍କୁ ଗ୍ରାମପଞ୍ଚାୟତର ସହାୟତା ଦେବା ଡି-୧୦୧୧୨୦୧୪ର କର୍ମଚାରୀଙ୍କୁ ଗ୍ରାମପଞ୍ଚାୟତର ସହାୟତା ଦେବା ।

। ଉପ ।

ଆପଣଙ୍କର ଅଧିକାରୀ
 ୫/୧୨/୧୪
 SARAPANCHI
 SUAKATI G.P. ଗ୍ରାମପଞ୍ଚାୟତର

ENGLISH TRANSLATION OF PALLISABHA MEETING DATED 10.11.2014
PALLISABHA MEETING.

Villager:- SUAKATI

Grampanchayat:- SUAKATI

Date :- 10.11.2014.

Place:- SUAKATI

Time:- 10.00 A.M

ANNEXURE - 14

A Gramsabha was conducted today i.e on 10.11.2014 at 10.00 A.M at village- Mundasahi Club house under the Chairmanship of Minati Barik, Ward Member and in presence of the following Govt. Officials/ Persons.

1. Additional Tahasildar, Banspal
2. Grampanchayat Extension Officer, Banspal,
3. Forest Section Officer, BJP Range,
4. Sarpancha, Suakati G.P
5. W.E.O, Banspal Block,
6. P.E.O, Suakati G.P
7. Revenue Inspector, Suakati.
8. President of F.R.C, Suakati
9. Secretary of F.R.C, Suakati

In the meeting, out of the 1688 voters 1086 adult voters were present and which is about 64.33 %. In the Gramsabha meeting the following issues were discussed.

M/S- Odisha Mining Corporation Ltd, Keonjhar has applied for diversion of the forest land measuring Hc 9.7300 for non forest purpose i.e Mining Operation in Gandhamardan Block-A and the land schedule was exhibited to the villagers.

1. The aim and objective of the said diversion proposal was discussed thoroughly in the Gramsabha meeting.
2. The Rules and Regulation of the Schedule Tribe and other Traditional Forest Dwellers (Recognition of Forest Right) Act, 2006 and Rules, 2012 was discussed deliberately in the said meeting.
3. After implementation of the Forest Right Act, 2006 to create consciousness among the villagers, pallisabha has been made in the said village on 27.04.2008 and 17.10.2014
4. In this village no Primitive Tribal Group (P.T.G) and Pre-Agricultural Communities (P.A.C) exists .
5. The villagers agreed that no schedule Tribe and other traditional forest dwellers are cultivating, residing and doing traditional activity within the proposed area to be diverted. The area proposed for diversion has not been settled in favour of any individual and Community under Forest Right Act, 2006 and no claim application is pending.
6. In this village 91 nos. of villagers had applied for settlement of Claim and issue of Palta under F.R.A, 2006 and out of the which claim has been settled in favour of 11 nos. of applicants beyond the lease area. 80 nos of application have been received on 16.11.2014.
7. The villagers also passed resolution that the proposed diversion of jungle kisan land is coming within the P.L/M.L lease hold area of M/S Odisha Mining Corporation Ltd.
8. Certified that the revenue village Suakati and Danfa are the adjoining village of Reserve Forest Gandhamardan. The villagers of the above two village are not dependant over the reserve forest for their livelihood.

9. Hence it was unanimously resolved in the Gramsabha for proposed diversion of Hc 9.7300 forest land for non forest purpose i.e Mining operation by M/S. Odisha Mining Corporation Ltd.

The meeting was ended with vote of thanks to Chair, all voters of village Suakati, Sarapancha Suakati G.P and all Govt Officials.

Sd/-
(Ward Member)
Chairman of the meeting

Sd/-
Sarapancha, Suakati G.P

Sd/-
President, Forest Right Committee

Sd/-
Secretary, Forest Right Committee

Sd/-
P.E.O, Suakati G.P

Sd/-
Revenue Inspector, Suakati

Sd/-
W.E.O, Banspal Block

Sd/-
Range Officer, BJP Range

Sd/-
Block Development Officer, Banspal

Sd/-
Addl. Tahasildar, Banspal

Sept 1 1861

ବିଜ୍ଞପ୍ତି

ଏତଦ୍ୱାରା ଶୁଆକାଟୀ ଗ୍ରାମପଞ୍ଚାୟତର ଶୁଆକାଟୀ ଓ ଦର୍ଥଳା ଗ୍ରାମର ସମସ୍ତ ଭୋଟର ମାନଙ୍କୁ ଜଣାଇ ଦିଆଯାଉଅଛି ଯେ, ଅତିରିକ୍ତ ଜିଲ୍ଲାପାଳ କେନ୍ଦୁଝରଙ୍କ ପତ୍ର ସଂଖ୍ୟା ୧୮୫୦/ରାଜସ୍ୱ ଓ ପଞ୍ଚାୟତ ସମିତି କାର୍ଯ୍ୟାଳୟ ପତ୍ର ସଂଖ୍ୟା ୩୪୧୭, ତା ୧୧.୧୦.୨୦୧୪ ରିଶ ଅନୁଯାୟୀ ଜଙ୍ଗଲ ଜମିକୁ ଅଣଜଙ୍ଗଲ ଜମିରେ ପରିଣତ କରିବା ପାଇଁ ନିମ୍ନ ସୂଚୀ ଅନୁଯାୟୀ, ପଲ୍ଲୀ ସଭାର ତାରିଖ ଧାର୍ଯ୍ୟ କରାଯାଉଅଛି ।

ଏଣୁ ପଲ୍ଲୀ ସଭାରେ ଗ୍ରାମର ସମସ୍ତ ଭୋଟର, ଗ୍ରାମର ଜଙ୍ଗଲଜମି କମିଟିର ସମସ୍ତ ସଦସ୍ୟ ଉପସ୍ଥିତ ରହି, ଜଙ୍ଗଲ ଜମିକୁ ଓଡ଼ିଶା ଖଣି ନିଗମ ଲିଃ ଅଣ ଜଙ୍ଗଲ ଜମି ଭାବରେ ବ୍ୟବହାର କରିବା କି ନାହିଁ ଆଲୋଚନା କରିବା ହେବେ ଯଦି କୌଣସି ବ୍ୟକ୍ତିର ଜାଗା, ଖଣି ଅଞ୍ଚଳ ମଧ୍ୟରେ ରହୁଥାଏ ଆବଶ୍ୟକ ପ୍ରମାଣ ସହ ତତ୍ତ୍ୱ ପଲ୍ଲୀ ସଭାରେ ଲିଖିତ ଅଭିଯୋଗ କରି ପାରିବେ ।

ଗ୍ରାମ ପଞ୍ଚାୟତ	ରାଜସ୍ୱ ଗ୍ରାମ	ପଲ୍ଲୀ ସଭାର ତାରିଖ	ପଲ୍ଲୀ ସଭାର ସ୍ଥାନ	ଜଙ୍ଗଲ ଜମିର ପରିମାଣ	ଓ.ଏମ.ଏ ପା.
ଶୁଆକାଟୀ	ଶୁଆକାଟୀ	ତା ୧୦/୧୧/୨୦୧୪ ବି ୧୦.୦୦ ଘଟିକା	ଶୁଆକାଟୀ ଗ୍ରାମର ମୁଖ୍ୟ ସାହି କୁବ ଘର ସମ୍ମୁଖ	ହେ ୯.୭୩୦୦	
ଶୁଆକାଟୀ	ଦର୍ଥଳା	ତା ବି ୧୦.୦୦ ଘଟିକା	ଦର୍ଥଳା ଗ୍ରାମର ମଣ୍ଡ ବରବାର	ହେ ୧୨୧.୪୧୯୨	


 ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ:



ଗ୍ରାମପଞ୍ଚାୟତ କାର୍ଯ୍ୟାଳୟ, ଶୁଆଳାଣୀ ବୀଶପାଳ, କେନ୍ଦୁଝର

ଚିଠି ନଂ :

ତା :

ମାନବନ୍ଧ,

ଶାୟଳ ଗୋଷ୍ଠି ଉନ୍ନୟନ ଅଧିକାରୀ,
ପଞ୍ଚାୟତ ସମିତି ବୀଶପାଳ.

କିଷ୍ଟସ୍ତୁ : ଜଙ୍ଗଲ ଜମିକୁ ଅଣଜଙ୍ଗଲ ଉଦ୍ଦେଶ୍ୟରେ ବ୍ୟବହାର କରିବା ନିମନ୍ତେ ପଲ୍ଲୀ
ସ୍ତୁତି ପତ୍ର : ଅତିରିକ୍ତ ଜିଲ୍ଲାପାଳ, କେନ୍ଦୁଝର ପତ୍ର ସଂଖ୍ୟା ୧୮୫୦/ରାଜସ୍ୱ
ଗୋଷ୍ଠି ଉନ୍ନୟନ ଅଧିକାରୀ ପଞ୍ଚାୟତ ସମିତିଙ୍କ ପତ୍ର ସଂଖ୍ୟା ତା ୧୧.୧୦.୨୦୧୪

ମହାଶୟ,

ଉପର ପୁରାତ ପତ୍ର ସଂଖ୍ୟା ଅନୁସାରେ ପୁରାତ ଜଙ୍ଗଲ ଜମିକୁ ଖଣି ଅଧିକାରୀଙ୍କ ଦ୍ୱାରା ଅଣ ଜଙ୍ଗଲ
କ୍ଷେତ୍ରରେ ବ୍ୟବହାର କରିବା ପାଇଁ ଗ୍ରାମ ପଞ୍ଚାୟତର ପ୍ରାୟା ସତ୍ୟପତ୍ର ସତ୍ୟପତ୍ର ମାଧ୍ୟମରେ ପଲ୍ଲୀ ସଭାର ତାରିଖ,
ସମୟ ଓ ସ୍ଥାନ ଧାର୍ଯ୍ୟ କରାଗଲା ।

ଗ୍ରାମ ପଞ୍ଚାୟତ ଶୁଆଳାଣୀ	କାଳସ୍ତ୍ର ଗ୍ରାମ ଶୁଆଳାଣୀ	ପଲ୍ଲୀ ସଭାର ତାରିଖ ଓ ସମୟ	ପଲ୍ଲୀ ସଭାର ସ୍ଥାନ	ଜଙ୍ଗଲ ଜମିର ପରିମାଣ	ଓ.ଏମ.ର ପାଇଁ
ଶୁଆଳାଣୀ	ଶୁଆଳାଣୀ	ତା ୧୧/୧୧/୨୦୧୪ ବି ୧୦.୦୦ ଘଟିକା	ଶୁଆଳାଣୀ ଗ୍ରାମର ମୁଖ୍ୟ ସାହି କୁଟ ସର ସାହି.	ହେ ୯.୭୩୦୦	
ଶୁଆଳାଣୀ	କଅଁଳା	ତା ୧୧/୧୧/୨୦୧୪ ବି ୧୦.୦୦ ଘଟିକା	କଅଁଳା ଗ୍ରାମର ମଞ୍ଚ ଠଳବାର.	ହେ ୧୨୧.୪୧୯୨	

ସରପଞ୍ଚ ଶୁଆଳାଣୀ ଗ୍ରାମ

ପରିପତ୍ରାଙ୍କ ନଂ _____ ତା _____

ଏହାର ଏକନିତା ନକଲ ମଲ୍ଲୀସଭାରେ ଉପସ୍ଥିତସଭାସଭାସଭା ଓ କିଷ୍ଟ-ପତ୍ରରେ ପାଇଁ ଅତିରିକ୍ତ ଜିଲ୍ଲାପାଳ,
କେନ୍ଦୁଝରଙ୍କ ସ୍ୱତନ୍ତ୍ର ଅନୁମତି ନିମନ୍ତେ ପ୍ରେରଣ କରାଗଲା ।

ସରପଞ୍ଚ ଶୁଆଳାଣୀ ଗ୍ରାମ

ପରିପତ୍ରାଙ୍କ ନଂ _____ ତା _____

ଏହାର ଏକନିତା ନକଲ ଉପଜିଲ୍ଲାପାଳ, କେନ୍ଦୁଝରଙ୍କ ସ୍ୱତନ୍ତ୍ର ଅନୁମତି ନିମନ୍ତେ ପ୍ରେରଣ ହେଲା ।

ସରପଞ୍ଚ ଶୁଆଳାଣୀ ଗ୍ରାମ



ଗ୍ରାମପଞ୍ଚାୟତ କାର୍ଯ୍ୟାଳୟ, ଗୁଆକାଟୀ
ବୀଶାଖ, କେନ୍ଦୁଝର

ଡିଡି ନଂ: _____

ତା: _____

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା: _____

ଏହାର ଏକକିତା ନକଲ ପ୍ରକୃତ ପ୍ରଶାସକ, ସମନ୍ୱିତ ଆବିବାସୀ ଉତ୍ତରଣ ସଂସ୍ଥା, କେନ୍ଦୁଝରୀକ ସଦସ୍ୟ ଅବଗତ ଓ ବିହିତ କାର୍ଯ୍ୟାନୁଷ୍ଠାନ ନିମନ୍ତେ ପ୍ରେରଣ ହେଲା ।

ସ୍ୱା _____
 ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ:

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା: _____

ଏହାର ଏକକିତା ନକଲ ଉପସ୍ଥିତ ସହଯୋଗ ଓ ବିହିତ ସରକ୍ଷେପ ପାଇଁ କଙ୍ଗାଲ ରେଜ ଅଧିକାରୀ, ଭୂସା ଉଆଳ ପଞ୍ଚ (B.J.P. Range), ଅଞ୍ଚଳ, କେନ୍ଦୁଝରୀକ ସଦସ୍ୟ ଅବଗତ ନିମନ୍ତେ ପ୍ରେରଣ କରାଗଲା ।

ସ୍ୱା _____
 ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ:

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା: _____

ଏହାର ଏକକିତା ନକଲ ଉପସ୍ଥିତ ସହଯୋଗ ଓ ବିହିତ ସରକ୍ଷେପ ପାଇଁ ଚନ୍ଦ୍ରସିଂହଦେବ ବାଘପାଳକ ସଦସ୍ୟ ଅବଗତ ନିମନ୍ତେ ପ୍ରେରଣ କରାଗଲା ।

ସ୍ୱା _____
 ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ:

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା: _____

ଏହାର ଏକକିତା ନକଲ ଆନା ଅଧିକାରୀ, ସରକ ଆନାକ ସଦସ୍ୟ ଅବଗତ ନିମନ୍ତେ ପ୍ରେରଣ କରାଗଲା ।

ସ୍ୱା _____
 ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ:

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା: _____

ଏହାର ଏକକିତା ନକଲ ଆନା ଅଧିକାରୀ, ନୟାଗୋଟ ଆନାକ ସଦସ୍ୟ ଅବଗତ ନିମନ୍ତେ ପ୍ରେରଣ କରାଗଲା ।

ସ୍ୱା _____
 ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ:

ପରିପତ୍ରାଙ୍କ ନଂ _____

ତା: _____

ଏହାର ଏକକିତା ନକଲ ରାଜସ ନିରୀକ୍ଷକ, ଶୁଆକାଟୀକ ସଦସ୍ୟ ଅବଗତ ନିମନ୍ତେ ପ୍ରେରଣ କରାଗଲା ।

ସ୍ୱା _____
 ସରପଞ୍ଚ ଶୁଆକାଟୀ ଗ୍ରା:ପ:

ପଞ୍ଜୀକୃତ ସମିତି କାର୍ଯ୍ୟକାରୀ, ବାଙ୍କୀପାଳ

ପତ୍ର ସଂଖ୍ୟା 346 / ତା. 11.10.2014

ପାଠକୃତ

ଶ୍ରୀ. ପୁତ୍ର ସରପଞ୍ଚ, ଶ୍ରୀଧରାଚା ଗାମ ପଞ୍ଚାୟତ ।

ବିଷୟ - ନିମ୍ନୋକ୍ତ ପ୍ରସ୍ତୁତ ଜଙ୍ଗଲ ଜମିକୁ ଅଣ ଜଙ୍ଗଲ ଭାବେ ଘୋଷଣା କରାଯାଇ ନିମନ୍ତେ ପଲ୍ଲୀ ସଭାରେ ଅନୁମୋଦନ ସମ୍ପର୍କୀୟ ପ୍ରସ୍ତାବ ଗ୍ରହଣ ସମ୍ବନ୍ଧେ ।

ସୂଚିତ ପତ୍ର - ଅତିରିକ୍ତ ଜିଲ୍ଲାପାଳ, କେନ୍ଦୁଝର ଜିଲ୍ଲା ପତ୍ର ସଂଖ୍ୟା ୧୮୫୦/ରାଜସ୍ୱ/
ତା. ୨୪.୦୯.୨୦୧୨.

ମହାଶୟ/ ମହାକାୟା

ଉପର ସୂଚିତ ବିଷୟ ପ୍ରତି ଦୃଷ୍ଟି ଆକର୍ଷଣ ପୂର୍ବକ ଜଣାଇବାକୁ ତାହେଁ ଯେ, ନିମ୍ନ ଲିଖିତ ଗାମସ୍ୱ ଗ୍ରାମରେ ସଂପୂର୍ଣ୍ଣ ଶିଳ୍ପ ସମ୍ପ୍ରାଦାୟ ଥିବା ଜଙ୍ଗଲ ଜମିକୁ ଅଣ ଜଙ୍ଗଲ ଭାବରେ ଘୋଷଣା କରାଯାଇ ନିମନ୍ତେ ପଲ୍ଲୀ ସଭା ଆହୁତ ପୂର୍ବକ ବୈଠକରେ ବିଧି ପୂର୍ବକ ଗୃହଣ କରା ହୋଇଥିବା ନିଷ୍ପତ୍ତିର ସହି ନିକଳ ସହ ଅନ୍ତ କାର୍ଯ୍ୟାଳୟକୁ ପ୍ରେରଣ କରିବା ହେବେ ।

ଏହି ପଲ୍ଲୀ ସଭା ବୈଠକ ନିମ୍ନ ବିଧି ପାଳନ ପୂର୍ବକ ଆହୁତ ଆବଶ୍ୟକ ଅଟେ ।

୧. ଉକ୍ତ ପଲ୍ଲୀ ସଭାରେ ଗ୍ରାମର ଭୋଟର ତାଲିକା ଅନୁସାରେ ଥିବା ସମସ୍ତ ଭୋଟରଙ୍କ ଦୁଇ ଦୁଇପାଖୀ ଲୁ ଡର୍ଚ୍ଚ ସଭ୍ୟ/ସଭ୍ୟା ଉପସ୍ଥିତ ରହି ଆବଶ୍ୟକୀୟ ନିଷ୍ପତ୍ତି ଅନୁମୋଦନ କରିବା ହେବେ ।
୨. ଉପସ୍ଥିତ ସଭ୍ୟ ସଭ୍ୟାଙ୍କ ମଧ୍ୟରୁ ଏକ ଦୁଇପାଖୀ ମହିଳା ସଭ୍ୟା ହେବା କାର୍ଯ୍ୟକାରୀ ।
୩. ଜଙ୍ଗଲ ଅଧିକାର କମିଟିର ସମସ୍ତ ସଦସ୍ୟ ଉକ୍ତ ପଲ୍ଲୀ ସଭାରେ ଉପସ୍ଥିତ ରହି ଆଲୋଚନାରେ ଅଂଶ ଗ୍ରହଣ କରିବା ହେବେ ।
୪. ସୂଚିତ ଜଙ୍ଗଲ ଜମିରୁ ଗଣି ଅଧିକାରୀଙ୍କ ଦ୍ୱାରା ଅଣ ଜଙ୍ଗଲ ହିସାବରେ ଘୋଷଣା କରାଯାଇ ନିମନ୍ତେ ଅନୁମୋଦନ ପ୍ରସ୍ତାବ ଗ୍ରହଣ କରି ପଲ୍ଲୀ ସଭା ଖାତାରେ ଲିପିବଦ୍ଧ କରିବା ସହ ଏହାର ପାତ୍ରି(୦୫) କିମ୍ବା ନିକଳ ସହ ପୁକ ରେଜିଷ୍ଟର ଅନ୍ତ କାର୍ଯ୍ୟାଳୟକୁ ପ୍ରେରଣ କରିବା ହେବେ । ଏହା ସହ ସଂପୂର୍ଣ୍ଣ ଗ୍ରାମରେ ପୂର୍ବରୁ ଅନୁଷ୍ଠିତ ହୋଇଥିବା ଜଙ୍ଗଲ ଜମି ଅଧିକାର କମିଟିର ବୈଠକର ବିବରଣୀର ସହି ନିକଳ ଫାଇଲ୍ ନିମ୍ନ ପଠାଇବା ହେବେ ।
୫. ଯଦି କୌଣସି ବ୍ୟକ୍ତି ଉକ୍ତ ଜଙ୍ଗଲ ଜମି ବର୍ତ୍ତମାନରେ ଅଧିକ ନିମ୍ନ ଜଙ୍ଗଲ ଜମି ଅଧିକାର ଆକଳନ ମୁତାବକ ଅଧିକାର ପ୍ରାପ୍ତ ହୋଇଅଛନ୍ତି ତେବେ ତାହାର ବିବରଣୀ ଉପରୋକ୍ତ ପଲ୍ଲୀ ସଭା ବୈଠକ ବିବରଣୀରେ ଲିପିବଦ୍ଧ କରି ଜଣାଇବା ହେବେ ।
୬. ପଲ୍ଲୀ ସଭା ବୈଠକରେ ଉପସ୍ଥିତ ସଭ୍ୟ/ସଭ୍ୟାଙ୍କ ସ୍ୱାକ୍ଷର/ ଟିପ୍ପଣି ଦିବୁଟ ବାବଦକୁ ତଥା ସଭ୍ୟ ସଭ୍ୟାଙ୍କ ଉପସ୍ଥାନ ଭୋଟ୍ ଲିଷ୍ଟ ସହ ମେଜନ ପୂର୍ବକ ସଂପୂର୍ଣ୍ଣ ପଞ୍ଜୀକୃତ ନିର୍ବାହୀ ଅଧିକାରୀଙ୍କ ପ୍ରମାଣ ପତ୍ର ବୈଠକ ଉପରୋକ୍ତ ପଠାଇବା ହେବେ ।
୭. ଭାରତ ସରକାରଙ୍କ ଜଙ୍ଗଲ ଓ ପରିବେଶ ବିଭାଗଙ୍କ ଦ୍ୱାରା ପ୍ରେରିତ ଅନୁଦେଶାବଳୀ ନିମ୍ନ ମୁତାବକ ନିମ୍ନ ସମସ୍ତ ଅବଧି ଗେ ପଲ୍ଲୀ ସଭା ସମାହିତ କରିବା କାର୍ଯ୍ୟକାରୀ ଏବଂ ଉଲ୍ଲେଖନୀୟ ପକ୍ଷେ କାର୍ଯ୍ୟାଳୟର ସମ୍ପର୍କରେ ପଦକ୍ଷେପ ବିଧେୟ ।

ଜଙ୍ଗଲ ଜମିର ପର୍ଯ୍ୟାୟ କାର୍ଯ୍ୟକାରୀ	ଗ୍ରାମ ସଭାର ଆହ୍ୱାନର ସମସ୍ତ ଅବଧି
୪୦ ହେକ୍ଟର ପର୍ଯ୍ୟନ୍ତ	୩୦ ଦିନ ମଧ୍ୟରେ
୪୦ ହେକ୍ଟର ରୁ ୧୦୦ ହେକ୍ଟର ପର୍ଯ୍ୟନ୍ତ	୪୫ ଦିନ ମଧ୍ୟରେ
୧୦୦ ହେକ୍ଟର ଏବଂ ତଦୁର୍ଦ୍ଧ	୬୦ ଦିନ ମଧ୍ୟରେ

୮. ଆବଶ୍ୟକ ସ୍ଥଳେ ଯଦି ଗ୍ରାମରେ ଆବିମ ଜରଦାତି ବିଧି ପାରାମର୍ଶିତ ବନ୍ଦାବାସ ବସବାସ କରୁନାହିଁ ତେବେ ତରୁ ସଂକ୍ରାନ୍ତୀୟ ପ୍ରମାଣ ପତ୍ର ଗ୍ରାମ ସଭା ବିବରଣୀରେ ସ୍ଥାପିତ କରିବା ହେବେ ।

୯. ଶ୍ରୀ ଉକ୍ତ ବୈଠକରେ ଉପସ୍ଥିତ କରି ପଲ୍ଲୀସଭାର ତଦାରଖ କରି
 ଗ୍ରାମସଭାର ସର୍ବଶେଷ ରିପୋର୍ଟ ଅତି କାର୍ଯ୍ୟାଳୟ ଗେ ବାଖଲ କରିବା ହେବେ ।

କ୍ର.ନଂ	ଗ୍ରାମ ଫରାସ୍ତ	ରାଜସ୍ୱ ଗ୍ରାମର ନାମ	ଶିଳ୍ପ ସଂସ୍ଥା/ଖଣି ସଂସ୍ଥାର ନାମ	ଜଙ୍ଗଲ ପରିମାଣ	ଜମିର ଫଳିର	ଅନୁଷ୍ଠିତ ହେବାକୁ ଥିବା ଗ୍ରାମ ସଭାର/ପଲ୍ଲୀସଭାର ଶୁଆଳାଗୀ
୧	ଶୁଆଳାଗୀ	ଶୁଆଳାଗୀ	ଓଡ଼ିଶା ଖଣି ନିଗମ ଲିମିଟେଡ୍	୧୧୯.୭୩୦୦		
୨	ଶୁଆଳାଗୀ	ଦଅଁଳା	ଓଡ଼ିଶା ଖଣି ନିଗମ ଲିମିଟେଡ୍	୧୧୨୧.୪୧୯୨		ଦଅଁଳା
		ଗଣମାର୍ଜନ ପ୍ରସାରିତ ସଂରକ୍ଷିତ ଜଙ୍ଗଲ	ଓଡ଼ିଶା ଖଣି ନିଗମ ଲିମିଟେଡ୍ ଶୁଆଳାଗୀ ମୋଟ	୧୧୩୮.୫୮୦		ଶୁଆଳାଗୀ, ଦଅଁଳା
				୧୧୫୧୯.୬୪୭୨		ଆପଣଙ୍କ ବିଶ୍ୱସ୍ତ

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଖପାଳ

ପରି ପତ୍ର ସଂଖ୍ୟା - 3417 ତା. 14.10.2014

ଏହାର ଏକକିତା ନକଲ ଅତିରିକ୍ତ ଜିଲ୍ଲାପାଳ, କେନ୍ଦୁଝର କି ଅବଗତ ତଥା ବିଚିତ ପରଖେପ ସକାଶେ ପ୍ରେରିତ ହେଲା ।

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଖପାଳ

ପରି ପତ୍ର ସଂଖ୍ୟା - 3418 ତା. 14.10.2014

ଏହାର ଏକକିତା ନକଲ ଉପଜିଲ୍ଲାପାଳ କେନ୍ଦୁଝର କି ସଦୟ ଅବଗତ ନିମନ୍ତେ ପ୍ରେରଣା ହେଲା ।

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଖପାଳ

ପରି ପତ୍ର ସଂଖ୍ୟା - 3418 ତା. 11.10.2014

କେନ୍ଦୁଝର କି ସଦୟ ଅବଗତ ଓ ବିଚିତ କାର୍ଯ୍ୟାନୁଷ୍ଠାନ ନିମନ୍ତେ ପ୍ରେରଣା କରାଯାଇ ।

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଖପାଳ

ପରି ପତ୍ର ସଂଖ୍ୟା - 3419 ତା. 11.10.2014

କେନ୍ଦୁଝର / କେନ୍ଦୁଝର
 ପ୍ରେରିତ ହେଲା ଏହାର ଏକକିତା ନକଲ ଜଙ୍ଗଲ ରେଞ୍ଜ ଅଧିକାରୀ (B.J.P Range), ଅଞ୍ଚଳ, ବାଖପାଳ କି ଅବଗତ ତଥା ବିଚିତ ପରଖେପ ସକାଶେ

ଗୋଷ୍ଠୀ ଉନ୍ନୟନ ଅଧିକାରୀ, ବାଖପାଳ

OFFICE OF THE TAHASILDAR :BANSPAL, DIST:-KEONJHAR

No. 2205 /Dt. 10.10.2014

The Block Development Officer,
Banspal, Dist-Keonjhar.

Sub: Diversion of Forest land measuring Hc.519.7472 for non-forest purpose in village- Danal/ Suakati by M/S. Odisha Mining Corporation Ltd. Gandhamardan Mines, Suakati under Forest Conservation Act, 1980 ensuring compliance of Schedule Tribes and other Traditional Forest Dwellers (Recognition of Forest Right) Act, 2006.

Ref: Letter No.1850 / Rev/dt. 24.09.2012 of Additional District Magistrate, Keonjhar.

Sir,

I am to inform you that the Additional General Manager, Odisha Mining Corporation Ltd, Odisha, Bhubaneswar has applied to the Collector, Keonjhar for diversion of the Forest Land (as enclosed in a separate sheet) for non forest purpose i.e for mining operation in Block-A of Gandhamardan Mines and to issue of certificate of Clearance under Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. The Collector, Keonjhar has directed to enquire into the matter for ensure the compliance of the schedule Tribes and Other Forest dwellers. (Recognition of Forest Right) Act, 2006. To ensure the compliance, you are requested to take step for holding of Gram sabha in each village to obtain the consent of the villagers for such proposed diversion.

Besides this, I am to inform that as per the notification No. 1403/dt. 13.03.2014 issued by the Ministry of Environment & Forest, Govt of India the process should be completed with the fixed time limit and which is as follows.

Area up to 40 hect- 30 days

Area above 40 to 100 hectares- 45 days.

Area exceeds 100 hect and above -60 days.

End: Land Schedule.

Yours faithfully,


TAHASILDAR, BANSPAL.

No. J-11015/1088/2007-IA.II (M)
 Government of India
 Ministry of Environment & Forests

Paryavaran Bhavan,
 C.G.O. Complex, Lodi Road,
 New Delhi-110 003.

Dated the 16th January, 2009

To

M/s Orissa Mining Corporation Limited
 OMC House, P.O. Box-34,
 Bhubaneswar,
 Orissa-751 001
 E-mail: dkpattanaik60@gmail.com

Subject: Expansion of Gandhamardan-A Iron Ore Mining Project of M/s Orissa Mining Corporation Limited, located in Village(s) Daonra and Suakati, Tehsil Telkoi, District Keonjhar, Orissa- environmental clearance regarding.

Sir,

This has reference to your letter No. 10608/ OMC/F&E/2007 dated 15.05.2007 and subsequent letters dated 04.10.2007, 15.11.2007, 15.03.2008, 28.03.2008 and 08.08.2008 on the subject mentioned above. The proposal is for enhancement of production of Iron ore from 2,50,000tonnes per annum(TPA)(0.25 million TPA) to 0.35 million TPA. The total mine lease area of the project is 618.576ha, out of which 11.55ha is an agricultural land, 519.7472ha is forestland (Gandhamardan RF), 73.002ha is wasteland, 10.3632ha is grazing land, 1.7ha is settlements and 2.212ha is roads. Area proposed for mining is 150.2407ha, an area of 6.7ha is kept for temporary storage of the existing over burden, 8.476ha for green belt, 38.6204ha for infrastructure (township, roads, magazine building and other infrastructure) and 414.5389ha is others (undisturbed area). An area of 6.7ha earmarked for existing dumps will be re-handled into the quarried void within first five years and afforested. The Chamda Nallah is flowing in the buffer zone of the mine at a distance of 0.8km from the mine lease boundary. In addition, the Baitarani River and the Bamni Nadi are also flowing in the buffer zone of the mine at distance of 5km each from the mine lease boundary. Pre-mining surface drainage pattern has been submitted and three, fourth order seasonal streams, namely Id1, Id2 and Id3 emanating from the mine lease will be affected during the expansion phase in the Hill Top quarries. The initial stretch of Id1 and Id2, fourth order channels of 70m and 30m respectively will be affected after the 10th year of expansion phase, whereas, the Id3, the fourth order seasonal channel of 400m length has already been cut and a diversion channel has been planned for the same. A part of the quarry will be backfilled and the flow of the channel will be restored over backfilled area. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. is 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, a map duly authenticated by the DFO cum Wildlife Warden, Keonjhar

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Division has been provided showing that no National Park / Sanctuary and no Wildlife Corridor exist within 10km of the mine lease. Twelve Reserve Forests are in the buffer zone of the mine. The mine working will be opencast by mechanized method involving drilling and blasting. The targeted production capacity of the mine is 3,50,000TPA of Iron ore and the life of mine is 18years. The mineral will be transported through the road and about 100additional trucks will ply to carry the ore from the mine. The topography of the area is hilly at an elevation ranging from 570m-1009m AMSL. The existing ground level for the hill top quarry is 975m AMSL and the ultimate working depth will be 928m AMSL. For the float quarry, the existing ground levels are 770m AMSL and 704m AMSL and the ultimate working depths will be 764m AMSL and 698m AMSL. The ground water table is reported at 643m AMSL. The mine working will not intersect the ground water table. A detailed hydro-geological report has been provided concluding that the mining will not have any impact on the ground water or the steams oozing out from the contact zones and forming major streams. The peak water requirement of the project is estimated as 329m³per day, which will be obtained from the Chamda nallah traversing near the lease hold. There is no population in the core zone, therefore, displacement of population and R&R is not involved. It is estimated that 5.6million m³ of waste will be generated during the life of the mine. The existing over burden dump occupy about 0.3 million m³ of over burden, which will be used for backfilling the quarry void till 2011. The entire quantity of the over burden will be re-handled and backfilled and there will be no external over burden dump. Backfilling will commence from the year 2010 onwards. Out of the total 150.2407ha excavated area, an area of 35.54 ha will be backfilled and an area of 114.7007 ha will be left as void, in which bench plantation will be carried out. Plantation will be raised in an area of 165.417 ha at the end of the mine life. The Consent to Establish from the State Pollution Control Board, Orissa was obtained on 04.07.2007 for enhancement of production of Iron ore from 0.25MTPA to 0.35MTPA involving lease area of 618.576ha. The public hearing of the project was held on 09.03.2007, as per the EIA Notification, 2006 for enhancement of production of iron ore upto 3.5lakhs TPA over an area of 618.576ha. The Indian Bureau of Mines had approved scheme of mining including progressive mine closure plan of the project on 01.08.2006 for lease area of 618.576ha. The capital cost of the project is Rs.25.94Crores and the capital cost for the environmental protection measures is proposed as Rs.108.96Lakhs. The annual recurring cost towards environmental protection measures is proposed as Rs.31Lakhs.

2. The Ministry of Environment and Forests has examined the application in accordance with the Section 12 of the EIA Notification, 2006 read with para 1.2 of the Circular No. J-11013/41/2006-IA.II(I) dated 13.10.2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned Gandhamardan-A Iron Ore Mining Project of M/s Orissa Mining Corporation Limited for an annual production capacity of 3,50,000tonnes(0.35 million tonnes) of iron ore by opencast mechanized method involving total mining lease area of 618.576ha, subject to implementation of the following conditions and environmental safeguards.

3/-

A. Specific conditions

- (i) All the conditions stipulated by the State Pollution Control Board, Orissa in their Consent to Establish shall be effectively implemented.
- (ii) Environmental clearance is subject to grant of forestry clearance. Necessary forestry clearance under the Forest (Conservation) Act, 1980 for an area of 519.7472ha forestland involved in the project shall be obtained before starting mining operation in that area. No mining shall be undertaken in the forest area without obtaining requisite prior forestry clearance.
- (iii) The environmental clearance is subject to approval of the State Landuse Department, Government of Orissa for diversion of agricultural land for non-agricultural use.
- (iv) The project proponent shall develop fodder plots in the non-mineralised area in lieu of the use of the grazing land.
- (v) The project proponent shall effectively address the concerns raised by the locals in the public hearing as well as during consideration of this project, while implementing this project.
- (vi) 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.
- (vii) The project proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operations. Adequate measures shall be taken while diverting all the three, fourth order seasonal streams, namely Id1, Id2 and Id3 emanating from 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 reclamation and plantation.
- (ix) The existing over burden (OB) and the likely to be generated over burden during the course of mining shall be re-handled and backfilled. Backfilling shall start from the year 2010 and the entire quantity of the waste to be generated shall be backfilled. There shall be no external over burden dumps. Out of the total 150.2407ha excavated area, an area of 35.54 ha shall be backfilled and an area of 114.7007 ha shall be left as void, in which bench plantation should be carried out. The backfilled area shall be afforested. Monitoring and management of rehabilitated areas should 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.

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- (x) Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and temporary OB dumps to prevent run off of water and flow of sediments directly into the Chamda Nallah, the Baitarni River, the Bamni Nadi and other water bodies. The water so collected shall 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 mine pit, topsoil dump, temporary over burden dumps and mineral dumps to prevent run off of water and flow of sediments directly into the Chamda Nallah, the Baitarni River, the Bamni Nadi and other water bodies and sump capacity shall 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 shall 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.

- (xi) Dimension of the retaining wall at the toe of temporary OB dumps and the over burden benches within the mine to check run-off and siltation shall be based on the rain fall data.
- (xii) Plantation shall be raised in an area of 165.417ha including a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, quarry benches, around crusher, roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (xiii) Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (xiv) Regular monitoring of the flow rate of the springs and the perennial nallahs shall be carried out and records maintained.
- (xv) Regular monitoring of water quality upstream and downstream of the Chamda Nallah shall be carried out and record of monitored data should be maintained and submitted to the Ministry of Environment and Forests, its Regional Office, Bhubneswar, the Central Groundwater Authority, the Regional Director, Central Ground Water Board, the State Pollution Control Board and the Central Pollution Control Board.

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18.5/-

- (xvi) The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
- (xvii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year - pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected shall 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.
- (xviii) Appropriate mitigative measures shall be taken to prevent pollution of the Baltani River and the Bamni Nadi in consultation with the State Pollution Control Board.
- (xix) 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.
- (xx) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.
- (xxi) 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. No transportation of ore outside the mine lease area shall be carried out after the sunset.
- (xxii) 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.
- (xxiii) Drills shall either be operated with dust extractors or equipped with water injection system.
- (xxiv) 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.

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(xxv) Consent to operate shall be obtained from the State Pollution Control Board prior to start of enhanced production from the mine.

(xxvi) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.

(xxvii) Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to the Ministry of Environment and Forests and its Regional Office, Bhubaneswar.

(xxviii) Land oustees and land losers/affected people, if any, shall be compensated and rehabilitated as per the National Policy on Resettlement and Rehabilitation of Project Affected Families.

(xxix) 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.

(xxx) 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.

(xxxi) 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. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Bhubaneswar.

(xxxii) 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.

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- (ii) No change in the calendar plan including excavation, quantum of mineral iron ore and waste should be made.
- (iii) Atleast four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM, SPM, SO₂ & 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.
- (iv) Data on ambient air quality (RSPM, SPM, SO₂ & NO_x) should be regularly submitted to the Ministry of Environment and Forests including its Regional office located at Bhubaneswar and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (v) 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.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) 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.
- (x) 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 of Environment and Forests and its Regional Office located at Bhubaneswar.

8/-

- (xi) 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.
- (xii) 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.
- (xiii) The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bhubaneswar, Central Pollution Control Board and State Pollution Control Board.
- (xiv) A copy of clearance letter shall be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.
- (xv) 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.
- (xvi) The project authorities should advertise at least in two local newspapers 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.
3. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
4. 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.
5. 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.

19/-

6. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.


(SATISH C. GARKOTI)
Additional Director (S)

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 Chief Wildlife Warden, Government of Orissa, Bhubaneswar.
- (vi) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
- (vii) The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests, A-3 Chandrashekharpur, Bhubaneswar-751023.
- (viii) The Chairman, Orissa State Pollution Control Board, Parivosh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012.
- (ix) The Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (x) The District Collector, Keonjhar District, Government of Orissa.
- (xi) EI Division, Ministry of Environment & Forests, EI Division, New Delhi.
- (xii) Monitoring File.
- (xiii) Guard File.
- (xiv) Record File.

Photographs showing pillars of the Mining Lease, diverted forest land and safety zone within Gandhamardan (Block-A) Iron Ore Mines





OFFICE OF THE REGIONAL CHIEF CONSERVATOR OF FORESTS, ROURKELA CIRCLE,
AT/P.O. PANPOSH, ROURKELA-769004.

Memo No. 2019/3F-103/2022 Date: 17.01.2022

To

The Divisional Forest Officer,
Keonjhar Division.

Sub: Diversion of balance forest land of 401.7824 ha. including 7.2807 of safety zone out of total forest land of 519.7472 ha, within total Mining Lease area of 618.576 ha. for Iron Ore Mining in Gandhamardan (Block-A) Mining lease in Keonjhar district in the State of Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

X-Sub: Submission of revised schemes in compliance with condition No.2(iv), 2(xiv)(a), 2(xiv)(b), 2(xiv)(c), 2(xiv)(d), 2(xiv)(e), 2(xxx) & 2(xxxii) of the Stage-I approval order dated 05.04.2019 of MoEF & CC, Govt. of India.

Ref: Your Memo No.9347 Dtd.28.12.2021.

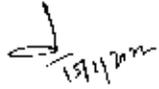
The revised financial outlay of the following schemes prepared in compliance with the conditions stipulated in the Stage-I approval accorded in respect of the above diversion proposal at the current of Rs.315/- per man day submitted vide your Memo under reference are hereby technically approved for the amount as indicated against each after effecting necessary changes at this level in view of the fact that the onetime cost norms are not applicable to them.

Sl. No.	Name of the scheme for which revised financial outlay has been submitted by the DFO, Keonjhar	Technical approval by the RCCF, Rourkela Circle.
01	Revised Financial Outlay of the scheme for balance forest land over 210.0062 ha to be retained as green cover within the mining lease area to arrest soil erosion prepared in compliance with the Condition No.2(iv)	Technically approved for Rs.85,61,400/- (Rupees eighty-five lakh sixty-one thousand four hundred) only
02	Revised Financial Outlay of the scheme for appropriate mitigative measures to minimize soil erosion and choking of streams prepared in compliance with the Condition No.2(xiv)(a).	Technically approved for Rs.26,49,600.00/- (Rupees twenty-six lakh forty-nine thousand six hundred) only
03	Revised Financial Outlay of the scheme for planting adequate drought hardy plant species and sowing of seeds in appropriate area within the mining lease area to arrest soil erosion prepared in compliance with the Condition No.2(xiv)(b).	Technically approved for Rs.10,50,600/- (Rupees ten lakh fifty thousand six hundred) only
04	Revised Financial Outlay of the scheme for construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour prepared in compliance with the Condition No.2(xiv)(c)	Technically approved for Rs.21,45,300/- (Rupees twenty-one lakh forty-five thousand three hundred) only
05	Revised Financial Outlay of the scheme for Stabilize the overburden dumps by appropriate grading/benching prepared in compliance with the Condition No.2(xiv)(d).	Technically approved for Rs.5,38,07,500/- (Rupees five crore thirty-eight lakh seven thousand five hundred) only

06	Revised Financial Outlay of the scheme for Management of Top soil prepared in compliance with the Condition No.2(xiv)(e)	Technically approved for Rs.2,78,57,200/- (Rupees two crore seventy-eight lakh fifty-seven thousand two hundred) only
07	Revised Financial Outlay of the scheme for desilting of village tanks and other water bodies located within 05 km from the mine lease boundary so as to mitigate the impact of siltation of such tanks water bodies prepared in compliance with the Condition No.2(xxxi)	Technically approved for Rs.15,52,300/- (Rupees fifteen lakh fifty-two thousand three hundred) only
08	Revised Financial Outlay of the scheme for gap planting and soil & moisture conservation measures to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of mining lease prepared in compliance with the Condition No.2(xxx)	Technically approved for Rs.5,67,800/- (Rupees five lakh sixty-seven thousand eight hundred) only

The technically approved revised financial outlays are sent herewith 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 Pr.CCF, Odisha for favour of kind information and necessary action.


Regional Chief Conservator of Forests,
Rourkela Circle

SCHEME FOR
GAP PLANTING AND SOIL & MOISTURE
CONSERVATION MEASURES TO RESTOCK
AND REJUVINATE THE DEGRADED OPEN
FORESTS LOCATED WITHIN 100 mtr FROM
OUTER PERIMETER OF MINING LEASE

FOR

GANDHAMARDAN (BLOCK-A) 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.2 (xxx) of the stage-I Forest Clearance granted by MoEF & CC, Govt. of India vide
F.No 8-27/2016-FC, Dt. 05.04.2019)

(@ Rs. 313.00/- per manday)

ELEMENTS OF THE SCHEME FOR GAP PLANTATION

CHAPTER	PARTICULARS	PAGE NUMBER
I	BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL	1 to 1
II	DETAILS OF LAND IDENTIFIED FOR GAP PLANTATION	2 to 2
III	DELINEATION OF PROPOSED AREA ON SUITABLE MAP	3 to 3
IV	AGENCY RESPONSIBLE FOR GAP PLANTATION	4 to 4
V	DETAILS OF WORK SCHEDULED PROPOSED FOR GAP PLANTATION	5 to 6
VI	REQUIREMENT OF FUNDS, PROVISION OF FUNDS AND UTILIZATION	7 to 7
VII	PROVISION OF FUNDS AND FUND UTILIZATION	7 to 7
ANNEXURES	COST NORM FOR ANR PLANTATION @ 200 PLANTS PER HA.- ANNEXURE-I	8 to 11
	BAMBOO TWIGS CONTINUOUS FENCING COST NORM FOR BLOCK OR MULTIRROW AVENUE PLANTATION (UNIT-10 RMT)- ANNEXURE- II	12 to 12

SCHEME FOR GAP PLANTING AND SOIL & MOISTURE CONSERVATION MEASURES TO RESTOCK AND REJUVENATE THE DEGRADED OPEN FORESTS LOCATED WITHIN 100 mtr FROM OUTER PERIMETER OF MINING LEASE IN RESPECT OF GANDHAMARDAN (BLOCK-A) IRON ORE MINES OF M/s OMC LTD OVER ML AREA 618.576 HA IN KEONJHAR DISTRICT

CHAPTER- I

BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL

Government of India in the Ministry of Environment, Forest and Climate Change has granted Stage-I Forest Clearance vide letter F.No. 8-27/2016-FC, Dt. 05.04.2019 over 401.7824 ha in favour of Gandhamardan (Block-A) Iron Ore Mines of M/s Odisha Mining Corporation Limited. Condition no. xxx of Stage-I FC stipulates that the User agency either himself or through the State Forest Department shall undertake gap planting 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 100 m from outer perimeter of the mining lease. The plan for plantation and SMC activities will be prepared and submitted to MoEF & CC before Stage-II Clearance.

In Gandhamardan (Block-A) Iron Ore Mines, excluding the common boundary with Gandhamardan (Block-B) Iron Ore Mines, an area over 7.058 ha is available within 100 meter from outer perimeter of the mining lease and devote of any mining lease. On analysis through DSS, 4.193 ha is found to be MDF and 2.865 ha is found to be Open Forest. Therefore, 2.865 ha are considered for plantation in the present scheme. The location of the above degraded forest land has been shown in the map enclosed in the Scheme.

Plantation will be taken up over 2.865 Ha. in ANR mode @ 200 plants/Ha. The cost estimate for this plantation calculated as per cost norm for ANR mode @ 200 plants per hectare @ Rs. 311.00/Manday is enclosed as Annexure-1. Earlier a scheme on gap planting and soil & moisture conservation measures within 100 meter from outer perimeter of mining lease has been approved by RCCR, Rourkela @ Rs. 286.30 per man day and @ Rs. 298.00 per man day to comply the Stage-II approval over 41.2442 ha within Gandhamardan (Block-A) Iron Ore Mines. Labour Commissioner of Odisha vide letter no. 2816/LC dt. 25.05.2021 has revised the minimum wage rate and accordingly the scheme has been revised @ Rs. 311.00 per man day.

CHAPTER- II

DETAILS OF LAND IDENTIFIED FOR PLANTATION OVER 2.865 HA IN ANR MODE @ 200 PLANTS / HA

IDENTIFICATION OF DEGRADED FOREST LAND

II(1)- Details of identified Forest land-

An area of 2.865 ha. degraded forest land outside 100mtr periphery is available for plantation in ANR mode @ 200 plants/Ha. The location map is enclosed as Plate-I. The area has been inspected by the Range Officer, BJP Range and found to be suitable for Afforestation and free from encroachment and encumbrances.

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 available 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 almost plain to gentle hilly in the identified area. The soil is mostly hard rock 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 (Maps enclosed).

Decision Support System of degraded forest land identified for plantation

Sl. No.	Name of the Village	Verified in Decision Support System (in ha)			
		Total Area	Non-forest	MDF	Area suitable for plantation
1	Adjacent to the southern boundary of the Gandhamardan-A Block Mining Lease of M/s OMC Ltd.	7.058	2.865	4.193	2.865

DSS map is enclosed as Plate- IV.

CHAPTER- IV

AGENCY RESPONSIBLE FOR PLANTATION OVER 2.865 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 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 2.865 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.	<i>Syzygium cumini</i> (Jamun)	9.	<i>Acacia catechu</i> (Khair)
2.	<i>Adina cordifolia</i> (Kuruma)	10.	<i>Emblica officinalis</i> (Amla)
3.	<i>Anogeissus latifolia</i> (Dhaura)	11.	<i>Mimusops elengi</i> (Baula)
4.	<i>Dalbergia sissoo</i> (Sissoo)	12.	<i>Lannea coromandelica</i> (Moi)
5.	<i>Azadirachta indica</i> (Neem)	13.	<i>Albizia procera</i> (Siris)
6.	<i>Gmelina arborea</i> (Gambar)	14.	<i>Anogeissus acuminata</i> (Phasi)
7.	<i>Terminalia chebula</i> (Harida)	15.	<i>Dendrocalamus strictus</i> (Bamboo)
8.	<i>Pongamia pinnata</i> (Karanj)		

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 1:8000 has been prepared along with GPS co-ordinates, 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 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 795 Rmt.

CHAPTER-VI

REQUIREMENT OF FUNDS:

For implementation of all prescriptions outlined above, Rs. 5,35,900/- (Rupees five lakh thirty five thousand nine hundred) only will be required as detailed below.

1.	ANR plantation @ 200 plants/Ha with 10 years maintenance amounting to Rs. 46530.76/- per Ha. Expenditure for 2.865 ha (2.865 x 46530.76) = Rs 1,33,310.63	Rs-	1,33,310.63
2.	Staggered trenches @130 MD per ha over 2.865 ha.	Rs-	1,15,831.95
3.	Additional incentive (3% of cumulative expenditure upto 4th year) for VSS/Fr./FG proposed for more than 80% survival and very good growth during 4th year of maintenance as per recommendation of DFO and RCCF. @Rs. 1220/- for 2.865 ha.	Rs-	3495.30

4	Additional EPA expenses if implemented through VSS at rate Rs.1200/- in 0th Year, Rs.2400/- in 1st Year, Rs.1800/- in 2nd Year, Rs.600/- in 3rd Year, Rs.600/- in 4th Year, Rs.600/- in 5th Year, Rs.600/- in 6th year, Rs.600/- in 7th year, Rs.600/- in 8th year, Rs.600/- in 9th year, Rs.600/- in 10th year @ Rs. 10200/- for 2.865 ha	Rs.	29,223.00
5	Bamboo twigs continuous fencing @ Rs. 207.10/- per Rmt for Rmt including maintenance to be carried out:- Expenditure for ha (Rs. 207.10/- x 795 Rmt) = Rs 1,64,644.50/-	Rs.	1,64,644.50
	TOTAL PLANTATION COST :-	Rs.	4,46,505.38
8	Add 20% for escalation	Rs.	89,301.08
	Total Plantation cost :-	Rs.	5,35,806.46 Or Say 5,35,900.00

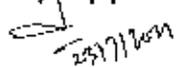
(Rupees five lakh thirty five thousand nine hundred) only.

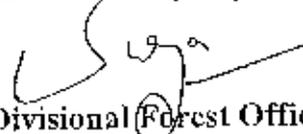
CHAPTER-VII

PROVISION OF FUNDS AND FUND UTILIZATION

Rs. 5,35,900/- (Rupees five lakh thirty five thousand nine hundred) only shall be deposited by the user agency 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 2.865 ha by the Divisional Forest Officer, Keonjhar Division on allotment by the Principal Chief Conservator of Forests, Odisha, Bhubaneswar.

Technically Approved


25/7/2021
Regional Chief Conservator of Forests
Rourkela Circle


Divisional Forest Officer,
Keonjhar Division

**COST NORM FOR AIDED NATURAL REGENERATION (ANR) @ 200 PLANTS
PER HECTARE**

Wage rate Rs. 311.00/Day.

Sl. No.	Item of Work	Preferable period of Execution	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
0TH YEAR						
1	Survey, Demarcation and Pillar Posting, GPS Reading with mapping	Nov/Dec	2	622.00	0	622.00
2	Site Preparation	Nov/Dec	2	622.00	0	622.00
3	Silvicultural Operation including clearance of weed, climber cutting, high stump cutting, singling of shoots etc.	Jan/Feb	5	1555.00	0	1555.00
4	Nursery cost (6 months old seedling)part @ Rs.12.43/- seedling (Rs.8.67 in 0th year + Rs.3.76 in 1st year) for 220 seedlings (200+20)	Jan-March	5.5	1710.50	367	2077.50
5	Contingency and Unforeseen Expenditures		0	0	133	133
	SUB TOTAL		14.5	4509.50	500	5009.50
6	Monitoring & Supervision charge 5% of the total cost					250.48
	GRAND TOTAL		14.5	4509.50	500	5259.98
1ST YEAR OPERATION						
1	Nursery cost (6 months old seedling) balance @ Rs.3.76 for 220 seedlings	Apr-June	2.5	777.50	128	905.50
2	Pitting 30 cm cube size	Feb/Mar	6	1866.00	0	1866.00
3	Carriage and planting including casualty replacement	Jul/Aug	5	1555.00	0	1555.00
4	Complete weeding, Soil working, Manuring	Aug/Sep	6	1866.00	0	1866.00
5	Cost of Vermi compost @200 gms/plant @ Rs.20/- per kg = Rs.800.00 and Granular Insecticide 5 gms/plant @ Rs.80/- per kg. =Rs.80.00	Aug/Sep	0	0	880	880
6	Cost of Chemical fertiliser (a) Urea 70 gms/plant in two subsequent doses @ Rs.6/- per kg =Rs.84.00 (b) NPK 50 gms/plant @ Rs.24/- per kg=Rs.240.00 as basal dose	Jul/Aug	0	0	324	324

7	Silvicultural Operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	4665.00	0	4665.00
8	Soil Conservation Measures (Staggered trenches of dimension 2 m X 0.5 m X 0.5 m @ 60 nos per ha) or its equivalent	Sep/Oct	20	6220.00	0	6220.00
9	Fireline Tracing and Inspection Path	Feb/Mar	3	933.00	0	933.00
10	Watch & ward	Aug-Mar	7	2177.00	0	2177.00
11	Contingency and Unforeseen Expenditures		0	0	304	304
	SUB TOTAL		64.5	20059.50	1636	21695.50
						1084.78
12	Monitoring & Supervision charge 5% of the total cost		64.5	20059.50	1636	22780.28
	GRAND TOTAL					

2ND YEAR OPERATION

1	Casualty Replacement including cost of seedling, carriage and planting	Jul/Aug	1	311.00	248.60	559.60
2	Complete weeding and cultural operations	Sep/Oct	2	622.00	0	622.00
3	Soil working and manuring	Sep/Oct	2	622.00	0	622.00
4	Cost of Fertiliser and insecticide (a) Vermicompost 200gms/plant @ Rs.20/- per kg=Rs.800.00 (b) Granular Insecticides 5 gms/plant for 20 plants 100 gms @ Rs.80/- per kg=Rs.8.00	Sep/Oct	0	0	808	808
5	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2488.00	0	2488.00
6	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
7	Watch & ward (whole year)	Apr-Mar	7	2177.00	0	2177.00
8	Contingency and Unforeseen Expenditures		0	0	181	181
	SUB TOTAL		21	6531.00	1238	7769.00
						388.45
9	Monitoring & Supervision charge 5% of the total cost		21	6531.00	1238	8157.45
	GRAND TOTAL					

3RD YEAR OPERATION

1	Complete weeding and cultural operations	Aug/Sep	1	311.00	0	311.00
2	Soil working	Aug/Sep	1	311.00	0	311.00

3	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
4	Watch & ward (whole year)	Apr-Mar	7	2177.00	0	2177.00
5	Contingency		0	0	200	200.00
	SUB TOTAL		10	3110.00	200	3310.00
6	Monitoring & Supervision charge 5% of the total cost					165.50
	GRAND TOTAL		10	3110.00	200	3475.50

4TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65

5TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65

6TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65

7TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65

8TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00

3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65

9TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65

10TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65

ABSTRACT

SL. No.	Item of Work	No. Person Day	Labour cost @ Rs 311.00/- per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	0th Year operation	14.5	4509.50	500	250.48	5259.98
2	1st Year operation	64.5	20059.50	1636	1084.78	22780.28
3	2nd Year operation	21	6531.00	1238	388.45	8157.45
4	3rd Year operation	10	3110.00	200	165.50	3475.50
5	4th Year operation	3	933.00	0	46.65	979.65
6	5th Year operation	3	933.00	0	46.65	979.65
7	6th Year operation	3	933.00	0	46.65	979.65
8	7th Year operation	3	933.00	0	46.65	979.65
9	8th Year operation	3	933.00	0	46.65	979.65
10	9th Year operation	3	933.00	0	46.65	979.65
11	10th Year operation	3	933.00	0	46.65	979.65
	TOTAL	131	40741.00	3574.00	2215.76	46530.76

**BAMBOO TWIGS CONTINUOUS FENCING COST NORM FOR BLOCK OR
MULTIROW AVENUE PLANTATION (UNIT- 10 RMT)**

Sl. No	Item/ Description	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
1	Cost of 6 bamboo poles-equivalent to one long bamboo @Rs.150/-	0	0	150	150
2	Cost of bamboo twigs 1/2 cartload of approximately 2m height @ of Rs.700/- per cartload	0	0	350	350
3	Cost of 2 nos of split bamboo @ Rs.50/- per whole piece	0	0	100	100
4	Binding GI wire -120ft @Rs 0.50 per ft	0	0	60	60
5	Transportation cost @Rs. 10 per rmt	0	0	100	100
6	Cost of Sand & Chloropyrifos			100	100
7	Labour Cost for digging of 30 cm deep holes by crowbar at a distance of 30 cms over 10 mts length, Putting Bamboo Twigs inside the holes and tinc with help of split bamboo and binding GI wire, including application mixture of Sand and Chloropyrifos	1	311.00	0	311.00
TOTAL (Planting Year)		1	311.00	860	1171.00
Cost per Rmt= Rs.117.10/-					
Repair and maintenance of fence per rmt in 2nd Year					Rs.40
Repair and maintenance of fence per rmt in 3rd Year					Rs.50
Materials required (10 Running Meter)					
1	Bamboo Poles (Bambusa vulgaris) each of 2.1 m long	6 pieces (1 long bamboo)			
2	Bamboo twigs	1/2 cartload			
3	Split Bamboo (Dendrocalamus strictus)- each 10 m long	4 pieces (or 2 whole pieces)			
4	Binding GI Wire	120 rft			
5	Sand	7 cft			
6	Chloropyrifos	0.25 kg			

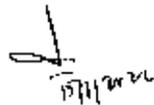
Revised Financial Outlay of the scheme for gap planting and soil & moisture conservation measures to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of mining lease prepared in compliance with the Condition No.2(xxx) of the Stage-I approval accorded by the GoI, MoEF & CC, ERO, Bhubaneswar vide their Letter F.No 8-27/2016-FC, Dt. 05.04.2019 in respect of the Proposal for diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha for Iron Ore mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

(Wage Rate @ Rs.315/- per MD)

1.	ANR plantation @ 200 plants/Ha with 10 years maintenance amounting to Rs. 46530.76/- per Ha. Expenditure for 2.865 ha (2.865 x 55181.28)	Rs.	1,58,094.37
2	Staggered trenches @130 MD per ha over 2.865 ha.	Rs.	1,17,321.75
3	Additional incentive (3% of cumulative expenditure upto 4th year) for VSS/Fr./FG proposed for more than 80% survival and very good growth during 4th year of maintenance as per recommendation of DFO and RCCF. @Rs. 1220/- for 2.865 ha.	Rs.	3495.30
4	Additional EPA expenses if implemented through VSS at rate Rs.1200/- In 0th Year, Rs.2400/- In 1st Year, Rs.1800/- In 2nd Year, Rs.600/- in 3rd Year, Rs.600/- In 4th Year, Rs.600/- in 5th Year, Rs.600/- in 6th year, Rs.600/- in 7th year, Rs.600/- in 8th year, Rs.600/- in 9th year, Rs.600/- in 10th year @ Rs. 10200/- for 2.865 ha	Rs.	29,223.00
5	Bamboo twigs continuous fencing @ Rs. 207.50/- per Rmt for Rmt including maintenance to be carried out:- Expenditure for ha (Rs. 207.50/- x 795 Rmt) = Rs 1,64,962.50/-	Rs.	1,64,962.50
TOTAL PLANTATION COST :-		Rs.	4,73,096.92
8	Add 20% for escalation	Rs.	94,619.38
Total Plantation cost :-		Rs.	5,67,716.30
			Or Say
			5,67,800.00

(Rupees five lakh sixty-seven thousand eight hundred) only

Technically Approved



Regional Chief Conservator of Forests,
Rourkela Circle

COST NORM FOR AIDED NATURAL REGENERATION (ANR) @ 200 PLANTS PER HECTARE
Wage rate ₹ 315/Day.

SL No.	Item of Work	Preferable Period of Execution	Labour in Mandays	Labour Cost (₹)	Material Cost (₹)	Total Cost in (₹)
PREVIOUS YEAR (ADVANCE WORK) NURSERY RAISING						
1	Nursery Cost (18 month Old Seedlings) @Rs. 38.37/- part (Rs.9.50 to be released) for 220 seedlings (200+20)	Nov-March	5.5	1733	357.5	2090.00
	Total		5.5	1732.5	357.5	2090.00
2	Monitoring & Supervision charge 5% of the total cost					104.5
	Grand Total		5.5	1732.5	358	2195
2TH YEAR (ADVANCE WORK) PRE-PLANTING OPERATION						
1	Survey, Demarcation and Pillar Posting, GPS Reading with mapping	Nov/Dec	2	630	0	630
2	Site Preparation	Nov/Dec	2	630	0	630
3	Silvicultural Operation including clearance of weed, timber cutting, high stump cutting, singling of shoots etc.	Jan/Feb	5	1575	0	1575
4	Nursery cost (18 months old seedling) @ Rs.38.37/- seedling (part Rs.23.85 to be released) for 220 seedlings (200+20)	Jan-Mar	15	4725	527	5247
5	Contingency and Unforeseen Expenditures		0	0	165	165
	SUB TOTAL		24	7560	687	8247
6	Monitoring & Supervision charge 5% of the total cost					412
	GRAND TOTAL		24	7560	687	8659.35
1ST YEAR						
1	Nursery cost (18 months old seedling) balance @ Rs.5.02 for 220 seedlings	Apr-June	2.5	788	317	1104
2	Pitting 45 cm cube size	Feb/Mar	6	1890	0	1890
3	Carriage and planting including casualty replacement	Jul/Aug	5	1575	0	1575
4	Complete weeding, Soil working, Manuring	Aug/Sep	6	1890	0	1890
5	Cost of Vermi compost @ 200 gms/plant @ Rs.20/- per kg = Rs.1600.00 and Granular Insecticide 5 gms/plant @ Rs.80/- per kg =Rs.160.00	Aug/Sep	0	0	1750	1750
6	Cost of Chemical fertiliser (a) Urea 70 gms/plant in two subsequent doses @ Rs.6/- per kg =Rs.168.00 (b) NPK 50 gms/plant @ Rs.24/- per kg=Rs.480.00 as basal dose	Jul/Aug	0	0	648	648
7	Silvicultural Operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	4725	0	4725
8	Soil Conservation Measures (Staggered trenches of dimension 2 m X 0.5 m X 0.5 m @ 60 nos per ha) or its equivalent	Sep/Oct	20	6300	0	6300
9	Fireline Tracing and Inspection Path	Feb/Mar	3	945	0	945
10	Watch & ward	Aug-Mar	7	2205	0	2205
11	Contingency and Unforeseen Expenditures		0	0	310	310
	SUB TOTAL		64.5	20318	3044	23361
12	Monitoring & Supervision charge 5% of the total cost					1166
	GRAND TOTAL		64.5	20317.5	3044	24529
2ND YEAR						
1	Casualty Replacement including cost of seedling, carriage and planting	Jul/Aug	1	315	497.20	812
2	Complete weeding and cultural operations	Sep/Oct	2	630	0	630
3	Soil working and manuring	Sep/Oct	2	630	0	630
4	Cost of Fertiliser and insecticide (a) Vermicompost 200gms/plant @ Rs. 20/- per kg=Rs.1600.00 (b) Granular Insecticides 5 gms/plant for 40 plants 200 gms @ Rs.80/- per kg=Rs.16.00	Sep/Oct	0	0	1615	1615
5	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
6	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2520	0	2520
7	Watch & ward (whole year)	Apr-Mar	7	2205	0	2205
8	Contingency and Unforeseen Expenditures		0	0	362	362
	SUB TOTAL		21	6615	2475	9090
9	Monitoring & Supervision charge 5% of the total cost					455
	GRAND TOTAL		21	6615	2475	9545
3RD YEAR						
1	Complete weeding and cultural operations	Aug/Sep	1	315	0	315
2	Soil working	Aug/Sep	1	315	0	315
3	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
4	Watch & ward (whole year)	Apr-Mar	7	2205	0	2205
	SUB TOTAL		10	3150	0	3150
5	Monitoring & Supervision charge 5% of the total cost					158
	GRAND TOTAL		10	3150	0	3307.5

4TH YEAR						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
	SUB TOTAL		3	945	0	945
3	Monitoring & Supervision charge 5% of the total cost					47
	GRAND TOTAL		3	945	0	992
5TH YEAR						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
	SUB TOTAL		3	945	0	945
3	Monitoring & Supervision charge 5% of the total cost					47
	GRAND TOTAL		3	945	0	992
6TH YEAR						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
	SUB TOTAL		3	945	0	945
3	Monitoring & Supervision charge 5% of the total cost					47
	GRAND TOTAL		3	945	0	992
7TH YEAR						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
	SUB TOTAL		3	945	0	945
3	Monitoring & Supervision charge 5% of the total cost					47
	GRAND TOTAL		3	945	0	992
8TH YEAR						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
	SUB TOTAL		3	945	0	945
3	Monitoring & Supervision charge 5% of the total cost					47
	GRAND TOTAL		3	945	0	992
9TH YEAR						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
	SUB TOTAL		3	945	0	945
3	Monitoring & Supervision charge 5% of the total cost					47
	GRAND TOTAL		3	945	0	992
10TH YEAR						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	315	0	315
2	Watch & ward and cultural operations	Apr-Mar	2	630	0	630
	SUB TOTAL		3	945	0	945
3	Monitoring & Supervision charge 5% of the total cost					47
	GRAND TOTAL		3	945	0	992
ABSTRACT						
Sl. No.	Item of Work	No. Person Day	Labour cost @ ₹ 315/- per day	Material cost (₹)	Monitoring & Supervision charge 5% of the total cost	Total cost in (₹)
1	Previous Year	5.5	1733	358	105	2196
2	0th Year	24	7560	687	412	8659
3	1st Year	65	20318	3044	1168	24529
4	2nd Year	21	6615	2475	455	9545
5	3rd Year	10	3150	0	158	3308
6	4th Year	3	945	0	47	992
7	5th Year	3	945	0	47	992
8	6th Year	3	945	0	47	992
9	7th Year	3	945	0	47	992
10	8th Year	3	945	0	47	992
11	9th Year	3	945	0	47	992
12	10th Year	3	945	0	47	992
	TOTAL	146	45990	6564	2628	55181.28

Annexure-2

**BAMBOO TWIGS CONTINUOUS FENCING COST NORM FOR BLOCK OR
MULTIROW AVENUE PLANTATION (UNIT- 10 RMT)**

Sl. No	Item/ Description	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
1	Cost of 6 bamboo poles-equivalent to one long bamboo @Rs.150/-	0	0	150	150
2	Cost of bamboo twigs 1/2 cartload of approximately 2m height @ of Rs.700/- per cartload	0	0	350	350
3	Cost of 2 nos of split bamboo @ Rs.50/- per whole piece	0	0	100	100
4	Binding GI wire -120ft @Rs 0.50 per ft	0	0	60	60
5	Transportation cost @Rs. 10 per rmt	0	0	100	100
6	Cost of Sand & Chloropyriphos			100	100
7	Labour Cost for digging of 30 cm deep holes by crowbar at a distance of 30 cms over 10 rmts length, Putting Bamboo Twigs inside the holes and tie with help of split bamboo and binding GI wire, including application mixture of Sand and Chloropyriphos	1	315.00	0	315.00
TOTAL (Planting Year)		1	315.00	860	1175.00
Cost per Rmt= Rs.117.50/-					
Repair and maintenance of fence per rmt in 2nd Year					Rs.40
Repair and maintenance of fence per rmt in 3rd Year					Rs.50
Materials required (10 Running Meter)					
1	Bamboo Poles (Bambusa vulgaris), each of 2.1 m long	6 pieces (1 long bamboo)			
2	Bamboo twigs	1/2 cartload			
3	Split Bamboo (Dendrocalamus strictus)- each 10 m long	4 pieces (or 2 whole pieces)			
4	Binding GI Wire	120 rft			
5	Sand	7 cft			
6	Chloropyriphos	0.25 kg			



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

No. 9223 /6E-Mining-196/2016
Dated, Keonjhar the 11-10-2019

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

- Sub: Diversion of 41.2442 ha of forest land for Broken up area, out of proposed diversion of 117.9648 ha of forest land (216.3617 ha proposed originally) in favour of Odisha Mining Corporation Limited (OMC) for mining of Iron Ore in Gandharmardan Block- A in Keonjhar District, in State of Odisha
- X-Sub: Demand of funds towards Gap plantation and soil & moisture conservation activities to restock and Rejuvenate the degraded open forest (having crown density less than 0.4), if any, located in the area within 100 m from outer perimeter of mining lease.
- Ref: F. No. 8-105/2006-FC dated 24.04.2017 of MoEF&CC, Govt. of India and Memo No. 2678 dated 06.09.2019 of RCCF, Rourkela Circle.

Sir,

With reference to the aforementioned letter on the captioned subject, you are requested to deposit the amount of ₹ 5,12,700/- (Rupees five lakh twelve thousand seven hundred) only towards cost of Gap Plantation and Soil & Moisture conservation activities to restock and rejuvenate the degraded open forest (having crown density less than 0.4), if any, located in the area within 100m from outer perimeter of mining lease. The said amount has to be deposited 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.

Yours faithfully,

Sd/-
Divisional Forest Officer,
Keonjhar Division.

(2)
Memo No. 9223 /Dated. 11-10-19

Copy submitted to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela/ Principal Chief Conservator of Forests, FD & NO, FC Act, O/o the Principal Chief Conservator of Forests, Odisha, Bhubaneswar for favour of kind information.

Sd/-
Divisional Forest Officer,
Keonjhar Division.

Sd/-
Executive Director (F&E),
M/s OMC Ltd,
Bhubaneswar

Sd/-
MCF&G
25/10/19

Sd/-
25/10/2019

10/23/2019
42792/2019/F & E

AGENCY COPY	
NEFT/RTGS CHALLAN for Ad-HOC CAMPA	
Date : 23-10-2019	
Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	5813/20223
MoEF/SG File No.	NA
Location.	ORRISA
Address.	OMC House Khordha
Amount(In Rs)	512700/- ✓
Amount in Words :Five Lakh Twelve Thousand Seven Hundred Rupees Only	
NEFT/RTGS to be made as per following details;	
Beneficiary Name:	ORRISA CAMPA
IFSC Code:	CORP000371
Pay to Account No.	150825813720223 Valid only for this challan amount.
Bank Name & Address:	Corporation Bank Lodhi Complex Branch, Block 11, CGO Complex, Phase I, Lodhi Road, New Delhi -110003
<ul style="list-style-type: none"> This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only This challan is valid only for seven days. 	

BANK COPY	
NEFT/RTGS CHALLAN for Ad-HOC CAMPA	
Date : 23-10-2019	
Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	5813/20223
MoEF/SG File No.	NA
Location.	ORRISA
Address:	OMC House Khordha
Amount(In Rs)	512700/-
Amount in Words :Five Lakh Twelve Thousand Seven Hundred Rupees Only	
NEFT/RTGS to be made as per following details;	
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IFSC Code:	CORP000371
Pay to Account No.	150825813720223 Valid only for this challan amount.
Bank Name & Address:	Corporation Bank Lodhi Complex Branch, Block 11, CGO Complex, Phase I, Lodhi Road, New Delhi -110003
<ul style="list-style-type: none"> This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only This challan is valid only for seven days. 	

After making successful payment, User Agencies may send a line of confirmation through Email: helpdeskcampa@corpbank.co.in

UPR NO - ANDBN192397534

Date - 29-10-2019



Wishnu
Sr. Manager (Finance)
The Odisha Mining Corporation Ltd.
Bhubaneswar



OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION

Phone No- 06766-254315, email ID- dfokjr.od@gov.in

No. 10546 / 6F-Mining-196/2016

Dated, Keonjhar, the 06/12 - 2019

To

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

Sub: Diversion of 41.2442 ha of forest land for broken up area out of proposed diversion of 117.9648 ha of forest land (216.3617 ha proposed originally) in favour of Odisha Mining Corporation Limited (OMC) for mining of Iron Ore in Gandhamardan Block- A in Keonjhar district in the State of Odisha.

X-Sub: Demand of funds towards scheme of gap planting and soil & moisture conservation measures to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of mining lease.

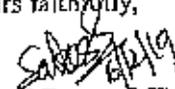
Ref: Memo No. 3327 dated 30.11.2019 of Addl. PCCF, Rourkela Circle.

Sir

With reference to the aforementioned memo on the captioned subject, you are requested to deposit the differential approved amount of Rs. 11,700.00 (Rupees eleven thousand seven hundred) only towards scheme of gap planting and soil & moisture conservation measures to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of mining lease as per current revised wage rate 298/- per man-day approved by the Addl. PCCF, Rourkela Circle 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.

Sl. No.	Particulars	Area (in ha)	Amount to be deposited as per revised wage rate of Rs. 298/- per man-day (Rs.)	Amount deposited earlier by the User Agency (Rs.)	Balance to be deposited (Rs.)
1	Gap planting and soil & moisture conservation measures to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of mining lease.	8.249	5,24,400.00	5,12,700.00	11,700.00
	Total		5,24,400.00	5,12,700.00	11,700.00

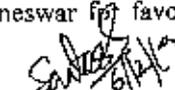
Yours faithfully,


Divisional Forest Officer,
Keonjhar Division.

(2)

Memo No. 10547 Dated. 06.12.19

Copy submitted to the Addl. Principal Chief Conservator of Forests, Rourkela Circle, Rourkela/ 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.


Divisional Forest Officer,
Keonjhar Division.

6F
31/12/19

12
01.01.20



ODISHA
NEW OPPORTUNITIES
No. 20.66.1.../OMC/F&E/2019
30th December, 2019

To
The Divisional Forest Officer,
Keonjhar Forest Division,
Keonjhar

Sub: Diversion of 41.2442 ha of forest land for broken up area, out of proposed diversion of 117.9648 ha of forest land (216.3617 ha proposed originally) in favour of Odisha Mining Corporation Ltd. for mining of Iron Ore in Gandhamardan (Block-A) Iron Ore Mines in Keonjhar District in the State of Odisha.

Ref.: Letter no. 10546/6F-Mining-196/2016 dt. 06.12.2019 by DFO, Keonjhar

Sir,

1/68

Addl. Principal Chief Conservator of Forests, Rourkela vide letter dt. 30.11.2019 has approved six schemes in compliance with the conditions stipulated in the Stage-II approval accorded in respect of 41.2442 ha forest land in Gandhamardan (Block-A) Iron Ore Mines. DFO, Keonjhar vide letter under reference has raised a demand of Rs. 11,700/- towards differential cost of implementation of scheme for Gap Plantation and Soil & Moisture Conservation activities to restock and rejuvenate the degraded open forest located within 100 mtr outer perimeter of mining lease. After verification of said demand by PCCF (Nodal), OMC deposited Rs. 11,700/- vide UTR No. ANDBN19241868554 dt. 27.12.2019. The copy the payment details is enclosed as **Annexure-I**. The revised CAMPA format towards the various payment made by OMC, pertaining to Gandhamardan (Block-A) Iron Ore Mines is enclosed as **Annexure-II**.

It is requested to kindly recommend the Stage-II FC compliance to higher quarter for grant of Stage-II FC over 76.7206 ha within Gandhamardan (Block-A) Iron Ore Mines.

An early action is highly solicited.

Yours faithfully,

[Signature]
30/12/19

Executive Director (F&E)

30th December, 2019

Encl: As above

Memo No...../OMC/F&E/2019

Copy to Regional Manager, Gandhamardan for kind information and necessary action.

Executive Director (F&E)

THE Odisha Mining Corporation Ltd.
(A Gold Category State PSU)
Registered Office : OMC House, Bhubaneswar -751001, India
Tel : 0674-2377400/2377401, Fax: 0674-2396889, www.omcltd.com
CIN : U13100OR1956SGC000313

AGENCY COPY	
NEFT / RTGS CHALLAN for Ad-HOC CAMPA	
Date : 21-12-2019	
Agency Name.	ODISHA MINING CORPORATION LTD.
Application No.	5813720279
MoEF/SG File No.	NA
Location.	ORRISA
Address.	OMC House Khordha
Amount(in Rs)	11700/-
Amount in Words :Eleven Thousand Seven Hundred Rupees Only	
NEFT/RTGS to be made as per following details;	
Beneficiary Name:	ORRISA CAMPA
IFSC Code:	CORP0000371
Pay to Account No.	150825813720279 Valid only for this challan amount.
Bank Name & Address:	Corporation Bank Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003
<ul style="list-style-type: none"> This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only This challan is valid only for seven days. 	

BANK COPY	
NEFT / RTGS CHALLAN for Ad-HOC CAMPA	
Date : 21-12-2019	
Agency Name.	ODISHA MINING CORPORATION LTD.
Application No.	5813720279
MoEF/SG File No.	NA
Location.	ORRISA
Address:	OMC House Khordha
Amount(in Rs)	11700/-
Amount in Words :Eleven Thousand Seven Hundred Rupees Only	
NEFT/RTGS to be made as per following details;	
Beneficiary Name:	ORRISA CAMPA
IFSC Code:	CORP0000371
Pay to Account No.	150825813720279 Valid only for this challan amount.
Bank Name & Address:	Corporation Bank Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003
<ul style="list-style-type: none"> This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only This challan is valid only for seven days. 	

After making successful payment, User Agencies may send a line of confirmation through
Email: helpdeskampa@corpbank.co.in

UTR NO- ANDBN19241868554
DD-27-12-2019



Whomoduk
Sr. Manager (Finance)
The Odisha Mining Corporation Lttd
Bhubaneswar



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

No. 647 /Mining- 98/2021
Dated, Keonjhar, the 25th January 2022

To

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

Sub:

Diversion of balance forest land of 401.7824 ha. including 7.2807 ha. of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha. for Iron Ore Mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

X-Sub:

Demand of revised differential amount for gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests within 100 m from outer perimeter of the mining lease at the current wage rate @Rs. 315.00/- per Mandays.

Ref:

Memo No. 204 dt. 17.01.2022 of Regional Chief Conservator of Forests, Rourkela Circle. Rourkela and this office letter No. 555 dt. 24.01.2022.

Sir

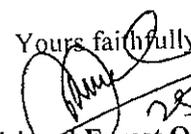
With reference to the aforementioned memo on the captioned subject, you are requested to deposit the approved amount of Rs. 43,400.00 (Rupees forty-three thousand four hundred) only towards Scheme for gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests within 100 m from outer perimeter of the mining lease stipulated in condition No. 2(xxx) of the Stage- I approval dated 05.04.2019 of the MoEF&CC, GoI as per current wage rate 315.00/- per man-day 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.

Particulars	Amount due in Rs.	Amount deposited in Rs.	Balance to be deposited in Rs.
Scheme for gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests within 100 m from outer perimeter of the mining lease	5,67,800.00	5,24,400.00	43,400.00
Total			43,400.00

Rupees forty-three thousand four hundred) only

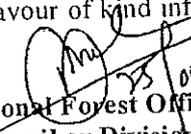
It is mentioned that the previous demanded vide this office letter No. 555 dated 24.01.2022 is hereby cancelled.

Yours faithfully,


25/01/22
Divisional Forest Officer,
Keonjhar Division.

Memo No. 648 / Dated. 25.01.2022

Copy forwarded to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela/ 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.


25/01/22
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. 647 /Mining- 98/2021

Dated, Keonjhar, the 25th January 2022

To

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

Sub: Diversion of balance forest land of 401.7824 ha. including 7.2807 ha. of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha. for Iron Ore Mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

X-Sub: Demand of revised differential amount for gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests within 100 m from outer perimeter of the mining lease at the current wage rate @Rs. 315.00/- per Mandays.

Ref: Memo No. 204 dt. 17.01.2022 of Regional Chief Conservator of Forests, Rourkela Circle, Rourkela and this office letter No. 555 dt. 24.01.2022.

Sir

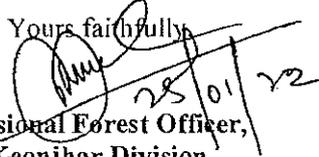
With reference to the aforementioned memo on the captioned subject, you are requested to deposit the approved amount of Rs. 43,400.00 (Rupees forty-three thousand four hundred) only towards Scheme for gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests within 100 m from outer perimeter of the mining lease stipulated in condition No. 2(xxx) of the Stage- I approval dated 05.04.2019 of the MoEF&CC, GoI as per current wage rate 315.00/- per man-day 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.

Particulars	Amount due in Rs.	Amount deposited in Rs.	Balance to be deposited in Rs.
Scheme for gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests within 100 m from outer perimeter of the mining lease	5,67,800.00	5,24,400.00	43,400.00
Total			43,400.00

Rupees forty-three thousand four hundred) only

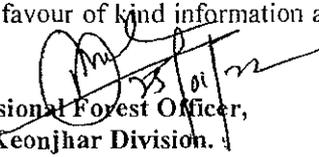
It is mentioned that the previous demanded vide this office letter No. 555 dated 24.01.2022 is hereby cancelled.

Yours faithfully,


25/01/22
Divisional Forest Officer,
Keonjhar Division.

Memo No. 648 /Dated. 25.01.2022

Copy forwarded to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela/ 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.


25/01/22
Divisional Forest Officer,
Keonjhar Division.

AGENCY COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 14-02-2022

Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	5813031946
MoEF/SG File No.	8-27/2016-FC
Location.	ORRISA
Address.	OMC House Khordha
Amount(in Rs)	173857100/-

Amount in Words :Seventeen Crore Thirty-Eight Lakh Fifty-Seven Thousand One Hundred Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	ORRISA CAMPA
IFSC Code:	UBIN0903710
Pay to Account No.	150825813031946 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

• This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 14-02-2022

Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	5813031946
MoEF/SG File No.	8-27/2016-FC
Location.	ORRISA
Address:	OMC House Khordha
Amount(in Rs)	173857100/-

Amount in Words :Seventeen Crore Thirty-Eight Lakh Fifty-Seven Thousand One Hundred Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	ORRISA CAMPA
IFSC Code:	UBIN0903710
Pay to Account No.	150825813031946 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

• This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

After making successful payment, User Agencies may send a line of confirmation through
Email: helpdeskcampa@corpbank.co.in

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 to
Email: cb0371@unionbankofindia.com

cls

Sandhya
14/02/2022
DR. Sandhya Mishra
Addl. G.M.(F&E)
OMC Ltd.

S. Mohapatra
14/02/2022
S. Mohapatra
By General Manager (Fin)

WD INJ 22045024404



OFFICE OF THE REGIONAL CHIEF CONSERVATOR OF FORESTS, ROURKELA CIRCLE,
AT/P.O. PANPOSH, ROURKELA-769004.

Memo No. 204 /3F-103/2022 Date: 17.01.2022

To

The Divisional Forest Officer,
Keonjhar Division.

Sub: Diversion of balance forest land of 401.7824 ha. including 7.2807 of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha. for Iron Ore Mining in Gandhamardan (Block-A) Mining lease in Keonjhar district in the State of Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

X-Sub: Submission of revised schemes in compliance with condition No.2(iv), 2(xiv)(a), 2(xiv)(b), 2(xiv)(c), 2(xiv)(d), 2(xiv)(e), 2(xxx) & 2(xxxii) of the Stage-I approval order dated 05.04.2019 of MoEF & CC, Govt. of India.

Ref: Your Memo No.9347 Dtd.28.12.2021.

The revised financial outlay of the following schemes prepared in compliance with the conditions stipulated in the Stage-I approval accorded in respect of the above diversion proposal at the current of Rs.315/- per man day submitted vide your Memo under reference are hereby technically approved for the amount as indicated against each after effecting necessary changes at this level in view of the fact that the onetime cost norms are not applicable to them.

Sl. No.	Name of the scheme for which revised financial outlay has been submitted by the DFO, Keonjhar	Technical approval by the RCCF, Rourkela Circle.
01	Revised Financial Outlay of the scheme for balance forest land over 210.0062 ha to be retained as green cover within the mining lease area to arrest soil erosion prepared in compliance with the Condition No.2(iv)	Technically approved for Rs.85,61,400/- (Rupees eighty-five lakh sixty-one thousand four hundred) only
02	Revised Financial Outlay of the scheme for appropriate mitigative measures to minimize soil erosion and choking of streams prepared in compliance with the Condition No.2(xiv)(a).	Technically approved for Rs.26,49,600.00/- (Rupees twenty-six lakh forty-nine thousand six hundred) only
03	Revised Financial Outlay of the scheme for planting adequate drought hardy plant species and sowing of seeds in appropriate area within the mining lease area to arrest soil erosion prepared in compliance with the Condition No.2(xiv)(b).	Technically approved for Rs.10,50,600/- (Rupees ten lakh fifty thousand six hundred) only
04	Revised Financial Outlay of the scheme for construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour prepared in compliance with the Condition No.2(xiv)(c)	Technically approved for Rs.21,45,300/- (Rupees twenty-one lakh forty-five thousand three hundred) only
05	Revised Financial Outlay of the scheme for Stabilize the overburden dumps by appropriate grading/benching prepared in compliance with the Condition No.2(xiv)(d)	Technically approved for Rs.5,38,07,500/- (Rupees five crore thirty-eight lakh seven thousand five hundred) only

06	Revised Financial Outlay of the scheme for Management of Top soil prepared in compliance with the Condition No.2(xiv)(e)	Technically approved for Rs.2,78,57,200/- (Rupees two crore seventy-eight lakh fifty-seven thousand two hundred) only
07	Revised Financial Outlay of the scheme for desilting of village tanks and other water bodies located within 05 km from the mine lease boundary so as to mitigate the impact of siltation of such tanks water bodies prepared in compliance with the Condition No.2(xxxi)	Technically approved for Rs.15,52,300/- (Rupees fifteen lakh fifty-two thousand three hundred) only
08	Revised Financial Outlay of the scheme for gap planting and soil & moisture conservation measures to restock and rejuvenate the degraded open forests located within 100 mtr from outer perimeter of mining lease prepared in compliance with the Condition No.2(xxx)	Technically approved for Rs.5,67,800/- (Rupees five lakh sixty-seven thousand eight hundred) only

The technically approved revised financial outlays are sent herewith 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 Pr.CCF, Odisha for favour of kind information and necessary action.


Regional Chief Conservator of Forests,
Rourkela Circle

SCHEME FOR

DE-SILTING OF VILLAGE TANKS AND OTHER
WATER BODIES LOCATED WITHIN 05 KM FROM
THE MINE LEASE BOUNDARY SO AS TO
MITIGATE THE IMPACT OF SILTATION OF SUCH
TANKS WATER BODIES

AT

GANDHAMARDAN (BLOCK-A) 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. 2 (xxxi) of the stage-I Forest Clearance granted by MoEF&CC, Govt.of India vide F.No
8-27/2016-FC, Dt. 05.04.2019)

(@ Rs. 311/- per man day)

SCHEME FOR DE-SILTING OF VILLAGE TANKS AND OTHER WATER BODIES LOCATED WITHIN 05 KM FROM THE MINE LEASE BOUNDARY SO AS TO MITIGATE THE IMPACT OF SILTATION OF SUCH TANKS WATER BODIES

(As per condition No. 2(xxxi) of the stage-I forest clearance granted by MoEF&CC, Govt. of India vide F.No. 8-27/2016-FC, Dt. 05.04.2019)

1. INTRODUCTION

Government of India in the Ministry of Environment, Forest and Climate Change has granted Stage-I Forest Clearance vide letter F.No. 8-27/2016-FC, Dt. 05.04.2019 over 401.7824 ha in favour of Gandhamardan (Block-A) Iron Ore Mines of M/s Odisha Mining Corporation Limited. Condition no. 2 (xxxi) of Stage-I FC stipulates that

“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 with this condition, a comprehensive scheme is prepared for implementation of the same within 5 km from boundary of the said mining lease.

Earlier a scheme on de-silting of village tank has been approved by RCCF, Rourkela @ Rs. 286.30 per man day to comply with the Stage-II approval over 41.2442 ha within Gandhamardan (Block-A) Iron Ore Mines. Labour Commissioner of Odisha vide letter no. 2816/LC dt. 25.05.2021 has revised the minimum wage rate to Rs. 311.00 per man day. In this context the scheme has been revised @ Rs. 311.00 per man day.

Gandhamardan (Block-A) 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 618.576 Hectares (ha) is confined within latitudes: 21⁰ 36' 08.58286'' – 21⁰ 37' 41.89734'' North and Longitudes: 85⁰ 29' 13.06230'' – 85⁰ 31' 16.78336'' East located in the Survey of India Topo sheet bearing No. 73 G/6 and 73 G/10 in 1:50,000 scale. It is located at a distance of 12 KM from Keonjhar town to the west. The area exhibits an undulated topography with varying elevations from 620 m to 1009 m above Mean Sea Level (AMSL). It is the southward extension of the North-South tending Gandhamardan Pahar and is a prominent physiographic unit with highest elevation of 1061 m above mean sea level (AMSL) occurring towards north of this area.

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. LOCATIONAL DETAILS

There are 2 other mines within 5 km from outer periphery of Gandhamardan (Block-A) Iron Ore Mines. We have already provided for de-siltation of water bodies located within 5 km of Gandhamardan (Block-B) Iron Ore Mines of OMC Ltd. Excluding the water bodies to be desilted for Gandhamardan (Block-B) project and water bodies located within lease area of other mines, there are only 4 tanks / water bodies within 5 Km from boundary of the mining lease area which need de- silting.

DETAILS OF WATERBODY FOR GANDHAMARDAN - A MINES						
WATER BODY NO.	VILLAGE	POINTS	LONGITUDE	LATITUDE	LENGTH	WIDTH
1	TALAKAIPUR	1	85°30'21.25"	21°34'10.77"	30.35	55.06
		2	85°30'21.83"	21°34'11.60"		
		3	85°30'23.43"	21°34'10.61"		
		4	85°30'22.85"	21°34'09.79"		
2	MAMALPOSI	1	85°29'00.01"	21°34'01.08"	44.11	37.80
		2	85°29'01.47"	21°34'01.52"		

		3	85°29'01.88"	21°34'00.35"		
		4	85°29'00.42"	21°33'59.91"		
3	TALAKAIPUR	1	85°29'34.99"	21°34'19.15"	51.07	66.41
		2	85°29'36.75"	21°34'18.93"		
		3	85°29'36.44"	21°34'16.79"		
		4	85°29'34.68"	21°34'17.01"		
4	KASADA	1	85°27'33.30"	21°35'02.25"	35.19	71.60
		2	85°27'34.52"	21°35'02.12"		
		3	85°27'34.22"	21°34'59.81"		
		4	85°27'33.00"	21°34'59.94"		

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 easily can be removed. The depth of siltation as observed varies from 30cm to 200cm. On an average 115cm or say 1 meter silt is proposed to be removed.

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 year) particularly during summer months when the pond / 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 meter and base width 2.5meter basing on availability of land on periphery. The soil on embankment to be compacted and two inlet and two outlet pipe are to be fixed in the embankment (6" diameter PVC pipe or Cement Pipe).

7. A. Cost estimate:

As per schedule of rate for earth work "Earth work in excavation by mechanical means (hydraulic excavation means over areas exceeding 30cm depth 1.5m in width as well as 10sqm. On plan including disposal of excavated earth lead up to 50 m and life up to 1.5m disposal earth to be levelled and neatly dressed etc complete @Rs. 111.05/ cum. Basing on volume of earth work as indicated above Table No, cost estimate to be calculated. In addition cost of Inlet / outlet pipes, at each pond an additional cost of `5000/- per tank to be added. Year wise cost factor is calculated as follows:

Sl	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 total area	Expenditure		
						Earth work @ Rs 111.05 per cum in Rs	Inlet & outlet pipes in Rs	Total expendit ure
1	Talakaipur	30.35	55.06	1671.07	1169.75	129901	10000	139901
2	Mamalposi	44.11	37.80	1667.36	1167.15	129612	10000	139612
3	Talakaipur	51.07	66.41	3391.56	2374.09	263643	10000	273643
4	Kasada	35.19	71.60	2519.60	1763.72	195861	10000	205861
				9249.59	6474.71	719017	40000	759017

For desilting twice, the estimated cost will be Rs.759017 X 2 = Rs 15,18,034.00 Or Say

Rs 15,18,100.00

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 2020-21 and then in 2025-26.

9. Executing Agency

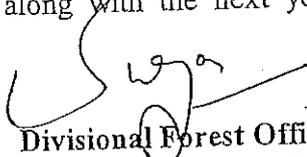
The user agency shall take up the project of De-siltation of Village tank out of project head.

10. INSPECTION AND MONITORING.

The manner of execution & periodical monitoring will be made by M/s OMC Ltd 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

23/11/21
Regional Chief Conservator of Forests
Rourkela Circle


Divisional Forest Officer
Keonjhar Forest Division

CERTIFICATE

Certified that the village tanks and water bodies included in the scheme for de-silting is duly verified by the undersigned

Place: Keonjhar

Date


Divisional Forest Officer
Keonjhar Forest Division

Revised Financial Outlay of the scheme for de-silting of village tanks and other water bodies located within 05 km from the mine lease boundary so as to mitigate the impact of siltation of such tanks water bodies prepared in compliance with the Condition No.2(xxxi) of the Stage-I approval accorded by the GoI, MoEF & CC, ERO, Bhubaneswar vide their Letter F.No 8-27/2016-FC, Dt. 05.04.2019 in respect of the Proposal for diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha. within total Mining Lease area of 618.576 ha for Iron Ore mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

(Wage Rate @ Rs.315/- per MD)

Sl.	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 total area	Expenditure		
						Earth work @ Rs 112.46 per cum in Rs	Inlet & outlet pipes in Rs	Total expenditure
1	Talakaipur	30.35	55.06	1671.07	1169.75	131550	12000	143550
2	Mamalposi	44.11	37.80	1667.36	1167.15	131258	12000	143258
3	Talakaipur	51.07	66.41	3391.56	2374.09	266990	12000	278990
4	Kasada	35.19	71.60	2519.60	1763.72	198348	12000	210348
				9249.59	6474.71	728146	48000	776146

For desilting twice, the estimated cost will be Rs.776146 X 2 = **Rs 15,52,292.00**

Or Say Rs 15,52,300.00

(Rupees fifteen lakh fifty-two thousand three hundred) only

Technically Approved

Regional Chief Conservator of Forests,
Rourkela Circle

04/02

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Annexure - XLV

1453



Letter No. 1845./OMC/F&E/2022
03rd February, 2022

To

The Divisional Forest Officer,
Keonjhar Forest Division,
Keonjhar

Sub.: Diversion of balance forest land of 401.7824 ha. including 7.2807 ha of safety zone out of total forest land of 519.7472 ha within total Mining Lease area of 618.576 ha for Iron Ore Mining in Gandhamardan (Block-A) Mining lease in Keonjhar District, Odisha of M/s Odisha Mining Corporation Ltd. during 2nd Renewal of Mining lease period.

Ref.: (i) Letter F. No. 8-27/2016-FC dt. 05.04.2019 by MoEF & CC.
(ii) Letter F. No. 10F (Cons) 50/18 8235/F&E dt. 26.04.2019 by State Govt.

Sir,

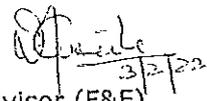
Stage-I Forest Clearance over 401.7824 ha pertaining to Gandhamardan (Block-A) Iron Ore Mines of OMC Ltd. has been granted by MoEF & CC vide letter under reference (i). The same has been communicated by State Govt. vide letter under reference (ii). Condition no. d) of the Stage-I Forest Clearance imposed by State Govt. is given as under:

"The User Agency shall undertake demarcation of the lease area on the ground posting four feet high cement concrete pillars embedded two feet inside the soil with serial number, forward and backward bearings, and distance from pillar to pillar. The User Agency shall also submit the map of lease area showing different kinds of forest land using DGPS survey data and latitude and longitude of each pillar to the Divisional Forest Officer, Keonjhar for his reference before commencement of work on final forest clearance".

In this context, a copy of the DGPS surveyed map of the mining lease area showing different kinds of forest land using DGPS survey data and latitude and longitude of each pillar is enclosed herewith for kind information and necessary action.

Yours faithfully,

Encl: As above


Advisor (F&E)

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

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

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CONSENT ORDER.
GANDHAMARDAN (BLOCK-A) IRON ORE MINE OF M/S. OMC LTD.

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BY REGD. POST WITH AD

STATE POLLUTION CONTROL BOARD, ODISHA

A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012

Phone-2561909, Fax: 2562822, 2560955 E-mail: paribesh1@ospcboard.org, Website: www.ospcboard.org

CONSENT ORDER

No. 5367 / IND - I-CON- 6050

Dt. 27.03.2021

CONSENT ORDER NO. 2539

Sub: Consent for discharge of sewage and trade effluent under section 25/26 of Water (PCP) Act, 1974 and for existing / new operation of the plant under section 21 of Air (PCP) Act, 1981.

Ref: Your online Application No. 2962461 Dated 24-02-2020, Online application No. 3216553 dated 28.11.2020 and Online reply dated 6.3.2021 and Letter No 935/OMC/ROG/2021 Dated 23.03.2021

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to

Name of the Industry: GANDHAMARDAN (BLOCK-A) IRON ORE MINES OF M/S. OMC LTD.

Name of the Occupier & Designation: SRI ANANTA PRASAD ROUT, MINES MANAGER

Address: AT/PO: SUAKATI, BANSAPAL, DIST: KEONJHAR

This consent order is valid for the period up to 31.03.2022 from the date of issue of this order.

This consent order supersedes the earlier consent order issued vide letter No. 3925 dated 27.03.2020.

Details of Products Manufactured

Sl. No	Product	Quantity
01.	Iron Ore	0.35 MTPA

This consent order is valid for the specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.



CONSENT ORDER
GANDHAMARDAN (BLOCK-A) IRON ORE MINE OF M/S. OMC LTD.

A. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KL/hr	Pre-scribed Standard			
				pH	TSS (mg/l)	Oil & Grease (mg/l)	BOD (mg/l)
01	Septic tank outlet (Domestic effluent)	Soak pit	--	5.5-9.0	200	--	100
02	Mine drainage water/ Surface runoff / other wastewater	On land/ Inland surface water body	--	5.5-9.0	100 (Rainy day)	10	--
					50 (Non-Rainy day)		

B. Fugitive Emission Standards

Particulate Matter	1200 µg/m ³
Note : Fugitive emission shall be monitored in the predominant downwind direction at a distance 25.0 ± 2.0 metres from the source of fugitive emission as per following :	
Area	Monitoring Location
Mine face / Benches	Drilling, excavation and loading applicable for operating benches above water table
Haul Roads/ Service Roads	Haul roads to ore processing plant, waste dumps and loading areas and service road.
Crushing plant	Run-off mine unloading at hopper, crushing areas, screens and transfer points.
Screening plant	Screens, conveying and transportation of ore discharge points.
Ore storage and loading	Intermediate stock bin / pile areas, ore stock bin / pile areas, wagon / truck loading areas.
Waste dump	Active waste / reject dumps

C. Disposal of solid waste permitted in the following manner

Sl. No.	Type of Solid waste	Quantity generated (TPD)	Quantity to be reused on site(TPD)	Quantity to be reused off site(TPD)	Quantity disposed off (TPD)	Description of disposal site.
01	Top soil & over burden	As per approved mining plan	--	--	--	As per approved mining plan



CONSENT ORDER
GANDHAMARDAN (BLOCK-A) IRON ORE MINE OF M/S. OMC LTD.

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D. GENERAL CONDITIONS FOR ALL UNITS

1. The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
2. The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
11. Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been tapped by the consumer for utilization for any purposes whatsoever.
12. Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
 - a) Industrial cooling, spraying in mine pits or boiler feed,
 - b) Domestic purpose
 - c) Process
13. The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
14. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
21. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.
22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.
25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of



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GANDHAMARDAN (BLOCK-A) IRON ORE MINE OF M/S. OMC LTD.

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- the Board.
27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner and to the standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
 28. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
 29. There shall not be any fugitive or episodal discharge from the premises.
 30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
 31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
 32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
 33. The industry has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
 34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as not to cause fugitive emission, dust problems through leaching etc., of any kind.
 35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
 - i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
 - ii) Controlled Incineration, wherever possible in case of combustible organic material.
 - iii) Composting, in case of bio-degradable material.
 36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
 37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
 38. The applicant, his heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
 39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
 40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
 41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
 42. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
 43. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate.

GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).

1. The applicant shall analyse the emissions every month for the parameters indicated in TABLE B & C as mentioned in this order and shall furnish the report thereof to the Board by the 10th of the succeeding month.
2. The applicant shall provide and maintain at his own cost three ambient air quality monitoring stations for monitoring Suspended Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen, Hydro-Carbon, Carbon-Monoxide and monitor the same once in a day/week/fortnight/month. The data collected shall be maintained in a register and a monthly extract be furnished to the Board.
3. The applicant shall provide and maintain at his own cost a meteorological station to collect the data on wind velocity, direction, temperature, humidity, rainfall, etc. and the daily reading shall be recorded and the extract sent to the Board once in a month.
4. The applicant shall forward the following information to the Member Secretary, State Pollution Control Board, Odisha, Bhubaneswar regularly.
 - a. Report of analysis of stack monitoring, ambient air quality monitoring meteorological data as required every month.
 - b. Progress on planting of trees quarterly.
5. The applicant shall install mechanical composite sampling equipment and continuous flow measuring / recording devices on the effluent



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GANDHAMARDAN (BLOCK-A) IRON ORE MINE OF M/S. OMC-LTD.

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drains of trade as well as domestic effluent. A record of daily discharge shall be maintained.

6. The following information shall be forwarded to the Member Secretary on or before 10th of every month.

- a. Performance / progress of the treatment plant.
- b. Monthly statement of daily discharge of domestic and/or trade effluent.

7. Non-compliance with effluent limitations:

- a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
 - i) Causes of non-compliance.
 - ii) A description of the non-compliance discharge including its impact on the receiving waters.
 - iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
 - iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
 - v) Steps to be taken by the applicant to prevent the condition of non-compliance.
- b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
- c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.

8. The applicant shall at his own cost get the effluent samples collected both before and after treatment and get them analysed at an approval laboratory every month for the parameters indicated in Part-D and shall submit in duplicate the report thereof to the Board.
9. The addition of various treatment chemicals should be done only with mechanical dosers and proper equipment for regulation of correct dosages determined daily and for proper uniform feeding. Crude practices such as dumping of chemicals in drains or sumps or trickling of acids or alkalis arbitrarily and utilizing poles for stirring etc. should not be resorted to.
10. In the disposal of treated effluent on land for irrigation, the industry shall keep in view of the need for:
 - Rotation of crops
 - Change of point of application of effluent on land
 - A portion of land kept fallow.
11. The adoption of these would avoid soil becoming sick or stale; the industry may ensure this in consultation with the Agriculture Department.
12. It is the sole responsibility of the industry to ensure that there are no complaints at any time from the royals in the surrounding areas as a result of discharge of sewage or trade effluent if any.
13. Proper housekeeping shall be maintained by a dedicated team.
14. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.



E. SPECIAL CONDITIONS:

1. This consent order is subject to compliance of orders of the Hon'ble Supreme Court of India in the matter of W. P. (Civil) 114/2014.
 2. This consent order is subject to permission from Steel and Mines Department, Government of Odisha for continuing of mining operation.
 3. Mining operation is subject to availability of all other statutory clearances.
 4. Drills shall either be operated with dust extractors or equipped with water injection system to minimize dust generation in the work environment.
 5. Controlled blasting shall be practiced to minimize generation of dust and fly rocks.
 6. Regular water sprinkling shall be carried out in critical areas prone to air pollution such as around crushing and screening plant. Water sprinkling shall also be carried out on haul roads at frequent interval so that it should always remain in wet condition. Haulage roads shall be devoid of ruts and potholes and shall be maintained properly to avoid generation of dust during movement of vehicles.
 7. Any mineral handling plant (crushing plants and screening plant) of the mine shall not be operated till you obtain requisite Consent to Establish and subsequent permission from Board. An undertaking to this effect shall be submitted within 15 days from date of issue of this order.
 8. Fixed auto sprinklers shall be provided on both sides of major haul road and approach road of the mine.
 9. Wheel washing facility for the ore transport vehicles shall be provided at the exit points of the mine. The wheel washing facility shall be integrated with complete recirculation system.
 10. The vehicles carrying ore for transportation from the mine shall be covered with tarpaulin (both bottom & top).
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11. Regular water sprinkling on mineral transportation roads passing through the habitation area as well as other strategic point on the National Highway shall be done jointly by the mining lessees in consultation with the Regional Officer.
 12. Four Ambient Air Quality Monitoring Stations shall be established in core zone and buffer zone for monitoring of ambient air quality and location of the stations shall be decided in consultation with the Regional Officer, State Pollution Control Board based on the metrological data, topographical features and environmentally and ecologically sensitive targets.
 13. The monitoring of ambient air quality shall be carried out twice in a week (24 hourly) at a particular site and the consolidated data shall be submitted to the State Pollution Control Board, once in a year.
 14. The ambient air quality shall remain within prescribed national ambient air quality standards.
 15. Fugitive Dust Emission Monitoring shall be carried out at the places as stated in Part-B of this order. The fugitive dust monitoring shall be carried out twice in a week on 24 hourly basis at a particular site and consolidated data shall be submitted to the State Pollution Control Board, once in every year.
 16. The top soil generated shall be stored at earmarked site (s) only and stabilized with plantation or shall be used for land reclamation and plantation.
 17. The over burden generated during the course of mining shall be stacked at earmarked dump site (s) and stabilized with plantation or used for reclamation of excavated land followed by plantation.
 18. The project proponent shall ensure that no natural watercourse and / or water resources are obstructed due to any mining operations. In case of
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diversion of natural watercourse, this shall be done with prior permission of the competent authority.

19. A detail surface runoff management study shall be carried out through a reputed Government Institution preferably IIT/NIT and action shall be taken on the basis of the recommendations/suggestions made in the report in order to ensure adequate management of runoff of the mine.
20. Check dams and check weirs shall be constructed at appropriate places of the mine lease area to prevent direct flow of runoff to nearby water bodies. The surface run off water from the existing runoff management system shall meet the prescribed standards.
21. Retention wall shall be constructed at the toe of topsoil dump and OB dump. Garland drain shall be constructed around topsoil dumps, over burden dumps and mineral stack yards terminating at settling pit to prevent direct disposal of runoff to nearby water bodies.
22. Garland drain and sedimentation pit shall be de-silted after monsoon or as and when required. The runoff discharge quality from runoff management system shall meet the standards prescribed in Part-A of this order (Part-A, Sl. No.2).
23. Domestic effluents shall be treated in a sewage treatment plant (STP) and or shall be discharged to soak pit via septic tank constructed as BIS specification. The treated wastewater quality of STP shall remain within the following standards and shall be used for plantation:

pH	-	6.5 -9.0
TSS	-	<100 mg/l
BOD	-	30 mg/l
Fecal Coliform	-	<1000 MPN/100 ml.

24. ETP shall be installed for workshop and wastewater generated during mining operation, if any. The quality of the treated wastewater shall
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remain within the following standards and shall be re-used for washing of vehicles:

pH	-	6.5 -8.5
TSS	-	50 mg/l
Oil & grease	-	10 mg/l
COD	-	150 mg/l

25. Regular monitoring of water quality of upstream and downstream of surface water bodies existed if any within 5 Km shall be carried out once in every month, the record shall be maintained, and submitted to the State Pollution Control Board once in every year. Monitoring shall be carried out through MoEF & CC accredited laboratory.
 26. Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells. The monitoring should be done four times a year in pre-monsoon (April/May), monsoon (August), post-monsoon (November) and winter (January) seasons. Consolidated data thus collected should be submitted to the Board annually.
 27. The mine shall take necessary action for compliance with the air and water quality standards as stipulated in Part-A and Part-B of this order.
 28. Adequate measures shall be taken for control of noise levels in the work environment of mine area so that noise levels at the boundary line of mining lease area shall not exceed 75 dB(A) during day time (6.00 AM to 9.00 PM) and 70 dB(A) during night time (9.00 PM to 6 AM).
 29. Ambient air quality monitoring data, noise monitoring data and water / wastewater quality monitoring data shall be electronically displayed at the entry point of the mine or at a suitable location of the mine.
 30. Plantation of trees shall be undertaken in the colony/ township, over top soil dumps, OB dumps, along the side of haul road and in other areas of the mines not being utilized for mining activities. The mine shall take up avenue plantation and plantation in nearby village areas in consultation
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CONSENT ORDER
GANDHAMARDAN (BLOCK-A) IRON ORE MINE OF M/S. OMC LTD.

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with DFO/Horticulture Department. The plantation details shall be submitted to the Board before end of April every year.

31. A copy of the annual return (annual return submitted to IBM, Govt. of India/ Directorate of Mines, Govt. of Odisha) shall be submitted to this Board every year.
32. The environmental statement report for the financial year ending 31st March shall be submitted to the Board in form-V on or before 30th September every year.

MEMBER SECRETARY
STATE POLLUTION CONTROL BOARD, ODISHA

TO,

SRI ANANTA PRASAD ROUT, MINES MANAGER
GANDHAMARDAN (BLOCK-A) IRON ORE MINES OF M/S. OMC LTD.
AT/PO: SUAKATI, DIST: KEONJHAR
PIN-758018.

Memo No. _____ /Dt. _____ /

Copy forwarded to :

- i) Regional Officer, State Pollution Control Board, Keonjhar.
- ii) District Collector, Keonjhar
- iii) Director of Mines, Govt. of Odisha, Bhubaneswar
- iv) Director, Environment-cum-Special Secretary, F & E. Dept. Govt. of Odisha, Bhubaneswar.
- v) D.F.O, Keonjhar
- vi) Mining Officer, Keonjhar
- vii) Chief Env. Engineer (C), (Hazardous waste management cell)
- viii) Chief Env. Scientist, Central Lab. SPCB, Bhubaneswar
- ix) Consent Register

CHIEF ENV. ENGINEER (M)
STATE POLLUTION CONTROL BOARD, ODISHA



CONSENT ORDER
GANDHAMARDAN (BLOCK-A) IRON ORE MINE OF M/S. OMC LTD.

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**GENERAL STANDARDS FOR DISCHARGE OF
ENVIRONMENTAL POLLUTANTS**



GENERAL STANDARDS FOR DISCHARGE OF
ENVIRONMENTAL POLLUTANTS PART -A : EFFLUENTS

Sl.No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Coastal Areas
		(a)	(b)	(c)	(d)
1.	Colour & odour	Colourless/Odourless as far as practicable	—	See 6 of Annex-1	See 6 of Annex-1
2.	Suspended Solids (mg/l)	100	600	200	For process wastewater – 100 b. For cooling water effluent 10% above total suspended matter of influent.
3.	Particular size of SS	Shall pass 850	—	—	
5.	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6.	Temperature	Shall not exceed 5°C above the receiving water temperature	—	—	Shall not exceed 5°C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0	—	—	1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50	—	50
10.	Total Kjeldahl nitrogen (as NH ₃) mg/l max.	100	—	—	100
11.	Free ammonia (as NH ₃) mg/l max.	5.0	—	—	5.0
12.	Biochemical Oxygen Demand (5 days at 20°C) mg/l max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/l max.	250	—	—	250
14.	Arsenic (as As) mg/l max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/l max.	0.01	0.01	—	0.001
16.	Lead (as pb) mg/l max.	01.	1.0	—	2.0



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17.	Cadmium (as Cd) mg/l max.	2.0	1.0	---	2.0
18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	-----	1.0
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0	-----	2.0
20.	Copper (as Cu) mg/l max.	3.0	3.0	-----	3.0
21.	Zinc (as Zn) mg/l max.	5.0	15	-----	15
22.	Selenium (as Se) mg/l max.	0.05	0.05	-----	0.05
23.	Nickel (as Ni) mg/l max.	3.0	3.0	-----	5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride (as F) mg/l max.	2.0	15	-----	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0	---	-----	-----
27.	Sulphide (as S) mg/l max.	2.0	-----	-----	5.0
28.	Phenolic compounds as (C ₆ H ₅ OH) mg/l max.	1.0	5.0	-----	5.0
29.	Radioactive materials a. Alpha emitter micro curie/ml. b. Beta emitter micro curie/ml.	10 ⁷ 10 ⁶	10 ⁷ 10 ⁶	10 ⁸ 10 ⁷	10 ⁷ 10 ⁶
30.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31.	Manganese (as Mn)	2 mg/l	2 mg/l	-----	2 mg/l
32.	Iron (Fe)	3 mg/l	3 mg/l	-----	3 mg/l
33.	Vanadium (as V)	0.2 mg/l	0.2 mg/l	-----	0.2 mg/l
34.	Nitrate Nitrogen	10 mg/l	---	-----	20 mg/l



NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO ₂), µg/m ³	Annual * 24 Hours **	50 80	20 80	-Improved west and Gaeke - Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual * 24 Hours **	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3.	Particulate Matter (size less than 10µm) or PM ₁₀ µg/m ³	Annual * 24 Hours **	60 100	60 100	-Gravimetric - TOEM - Beta Attenuation
4.	Particulate Matter (size less than 2.5µm) or PM _{2.5} µg/m ³	Annual * 24 Hours **	40 60	40 60	-Gravimetric - TOEM - Beta Attenuation
5.	Ozone (O ₃) µg/m ³	8 Hours ** 1 Hours **	100 180	100 180	- UV Photometric - Chemiluminescence - Chemical Method
6.	Lead (Pb) µg/m ³	Annual * 24 Hours **	0.50 1.0	0.50 1.0	-AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. - ED-XRF using Teflon filter
7.	Carbon Monoxide (CO) mg/m ³	8 Hours ** 1 Hours **	02 04	02 04	- Non Dispersive Infra Red (NDIR) Spectroscopy
8.	Ammonia (NH ₃) µg/m ³	Annual* 24 Hours**	100 400	100 400	-Chemiluminescence - Indophenol Blue Method
9.	Benzene (C ₆ H ₆) µg/m ³	Annul *	05	05	-Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)-Particulate phase only, ng/m ³	Annual*	01	01	-Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m ³	Annual*	06	06	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni),ng/m ³	Annual*	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

** Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.