

**SCHEME FOR
COMPENSATORY AFFORESTATION

OVER 22.697 HA

OF NON-FOREST GOVT. LAND
IDENTIFIED IN VILLAGE PETURU

UNDER
POTTANGI TAHASIL OF SEMILIGUDA
RANGE OF KORAPUT FOREST
DIVISION AGAINST
JILLING-LANGALOTA IRON ORE MINES

OF

M/S ODISHA MINING CORPORATION LTD.

LOCATED IN
KEONJHAR FOREST DIVISION**

(@ Rs. 311.00/- per manday)

ELEMENTS OF THE SCHEME FOR COMPENSATORY AFFORESTATION

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SUITABILITY CERTIFICATE

Certified that 22.697 Ha of non forest Govt. revenue land is found to be suitable for the purpose of Compensatory Afforestation (Bald Hill Pattern), where the total 22.697 Ha of non-forest land identified in villages Peturu under Pottangi Tahasil of Koraput District, against diversion of 22.697 Ha of forest land in Jilling Langalota Iron Ore Mining Lease of M/s OMC.

Therefore the above stated 22.697 Ha of non-forest Govt revenue land identified in lieu of diversion of 22.697 Ha of Forest land in Jilling Langalota Iron Ore Mining Lease of M/s OMC is suitable for compensatory Afforestation.


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

CHAPTER- I

BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL

Jilling-Langalota Iron Ore Mines of M/s Odisha Mining Corporation (OMC) Limited, a State Government Undertaking, is an ongoing mining project for exploitation of iron ore occurring in the Mining Lease (ML) area over 456.100 ha (as per RoR)/ 456.037 ha (as per DGPS) in the Revenue villages of Jalahuri, Joroli, Bholebeda, Bansapani, Jajang, Khuntapani under Barbil Tahasil of Champua Sub-Division in Keonjhar District and Baitarani Reserved Forest of Keonjhar Forest Division.

Consequent upon amendment of Mines and Minerals (Development and Regulation) Act 1957, the sub-section (6) of section 8 A was inserted in the MMDR Act through the said amendment in 2015 to provide that the non-captive mining lease period shall be extended up to 31.03.2020 or a period of 50 years from the date of grant of lease whichever is later. Consequently, Jilling-Langalota Iron Ore Mines got expired on 31.03.2020. The mine was put under auction by the State Government and the successful bidder could not comply the terms and conditions as a result of which the State Government recommended for consideration and allocation through reservation (section 17A of MMDR Act) route or any other appropriate provision in favour of OMC Ltd (A Government Company) for a specified period of time to meet the exigencies of the situation where most of the auctioned mines are unable to start operation.

Considering the above, the Ministry of Mines, Government of India vide order No.4/1/2020-M-VI dt 05.01.2021 cancelled the Lol and/or vesting order issued under Section 8B of the MMDR Act in favour of the preferred bidders before reservation in favour of Odisha Mining Corporation Ltd. Pursuance to the said order dt 05.01.2021 issued by the Ministry of Mines, Govt. of India, Jilling-Langalota Iron Ore Block in Keonjhar district of Odisha has been reserved in favour of M/s Odisha Mining Corporation Limited under section 17 (A) (2) of the MMDR Act read with Section 20A for a period of 10 years vide Notification No.283/SM dt 11.01.2021. Subsequently, the State Government vide order No.358/SM dt 12.01.2021 granted the mining lease for iron ore in favour of Odisha Mining Corporation Limited in respect of Jilling-Langalota Iron Ore Mines over an area of 456.100 ha (as per DGPS)/456.037 ha (as per RoR) in village Bansapani, Bholebeda, Jajang etc. under Barbil Tahasil of Keonjhar district for a period of 10 years. Accordingly, the mining lease deed has been executed on dt 11.01.2021. OMC has commenced the operation since dt 28.02.2021 and mining is continuing.

Total forest land present in the Jilling-Langalota Iron Ore Mines is 392.289 ha as per the authenticated land schedule provided by Tahasildar, Barbil. Stage-II Forest Clearance over 342.602 ha has been granted by MOEF vide letter F. No. 8-49/98-FC (Pt) dt. 08.10.2014. Out of 392.289 ha, South Eastern Railway has acquired 26.99 ha of forest land. In this context OMC has submitted a forest diversion proposal over balance forest land of 22.697 ha.

In this context non-forest Govt. land over 22.697 ha has been identified in Peturu village of Koraput District for raising CA.

CHAPTER- II

DETAILS OF LAND IDENTIFIED FOR COMPENSATORY AFFORESTATION

A. LAND IDENTIFICATION AND JOINT VERIFICATION OF THE IDENTIFIED SITE.

The site for Compensatory Afforestation has been identified in village Peturu under Pottangi Tahasil in Semiliguda Ranage of Koraput Forest Division over 22.697 ha and has been jointly verified by the Tahasildar, Pottangi, Revenue Inspector, Sunki, Range Officer, Seimiliguda and Forest Section Officer, Sunki. Collector, Koraput vide letter No. 2366/XXVI-349/2021 dated 06.08.2021 asked Tahasildar Pottangi to process the proposal for allotment of non-forest Govt. land for raising compensatory afforestation in favour of Jilling-Langalota Iron Ore Mines of M/s Odisha Mining Corporation Ltd.

B. INFORMATION ON NON-ENCROACHMENT AND NON-ENCUMBRANCE.

The Tahasildar, Pottangi has given certificate of non-encroachment and non-encumbrance in respect of the non-forest Govt. land identified and allotted for Compensatory Afforestation.

C. INFORMATION ON LAND STATUS.

The land schedule and land status of 22.697 ha land identified and allotted for Compensatory Afforestation is furnished hereunder:-

Tahasil	Village	Khata No.	Plot No.	Area taken for instant proposal for CA (in Ac.)	Kissam
Pottangi	Peturu	61 (AAA)	310	37.96	Pahad
			410	9.36	Pahad
			495	8.77	Pahad
	Total			56.09 Acres or 22.697 Ha	

D. SUITABILITY OF IDENTIFIED SITE FOR COMPENSATORY AFFORESTATION.

The identified land is free from encroachment and encumbrance. This land is neither covered under Section-4 of Orissa Forest Act, 1972 nor included in DLC report.

The non-forest Govt. land identified in village Peturu in three patches situated in hilly slopes. The slope of the identified site is moderate and suitable for Compensatory Afforestation with Bald hill plantation model @ 1600 seedling per ha over 22.697 ha.

The topography of the area is mainly hilly. The soil is prone to erosion necessitating soil-moisture conservation measures. Available depth of sandy-loam soil is conducive for plantation with suitable soil-moisture conservation measures. The average temperature varies from 13.5° C minimum in December to 45°C maximum in May. The annual rainfall varies from 1200 mm to 1500 mm. The maximum rainfall is received during the rainy season from July to September. The identified land is considered for Compensatory Afforestation in Bald hill plantation model over 22.697 ha.

CHAPTER-III

DELINEATION OF PROPOSED AREA ON SUITABLE MAP

III (1) GPS COORDINATES AND GPS MAP OF THE COMPENSATORY AFFORESTATION SITE

The area has been demarcated through GPS survey and 29 nos of 4' height RCC pillars to be posted around the identified area and the GPS survey data showing latitude & Longitude of each point and their chainage with bearing will be depicted in the village sheet map (Map Enclosed). A durable sign board has been erected at the identified site at a conspicuous location with name of the project, year of allotment, name of the scheme, details of plots etc. depicted there on. The above works is to be done by the user agency.

CHAPTER- IV

AGENCY RESPONSIBLE FOR COMPENSATORY AFFORESTATION

IV (1) AGENCY RESPONSIBLE FOR PLACEMENT OF FUNDS

The user agency shall provide funds for raising Compensatory Afforestation as per the approved scheme.

IV (2) AGENCY RESPONSIBLE FOR EXECUTION OF COMPENSATORY AFFORESTATION

The Territorial Wing of the Forest Department i.e. Divisional Forest Officer, Koraput Division will be assigned with the task for execution of Compensatory Afforestation.

CHAPTER- V

DETAILS OF WORK SCHEDULE PROPOSED FOR COMPENSATORY AFFORESTATION

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. Specific treatment of the site in terms of soil and moisture conservation intervention will be depicted in the treatment map. A treatment map will invariably be prepared for Species to be planted and treatments to be applied to the different patches shown in the treatment map and planting plan. This plan will be followed when actual planting is carried out.

Species to be planted:-

1. *Syzgium cumini*(Jamu)
2. *Adina cardifolia*(Kuruma)
3. *Anogeissus latifolia*(Dhaura)
4. *Accacia catechu* (Khair)
5. *Dalbergia sissoo*(Sissoo)
6. *Azadirachta indica*(Neem)
7. *Gmelina arborea* (Gambar)

8. *Terminalia belerica* (Bahada)
9. *Terminalia chebula* (Harida)
10. *Pongamia pinnata* (Karanja)
11. *Emblica officinalis* (Anla)

B. PRE-PLANTING OPERATION

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

Nursery will be raised @1760/ seedlings per ha including seedlings for 10% casualty replacement for 22.697 ha.

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

The planting area has been surveyed and demarcated through GPS survey and 29 nos. of 4' height RCC pillars to be posted on the field at inter visible distance (as per the direction of forest Range Officer, Semiliguda Range) with GPS co-ordinates, forward and backward bearing, pillar No. and distance between pillars inscribed in it. A GPS map in the scale of 1:4000 has been prepared along with GPS co-ordinates forward and backward bearing, pillar No. and distance between pillars reflected in the map. A durable sign board to be erected at a conspicuous location with name of the site, scheme, area etc. depicted on it.

B (III)-PRE PLANTING OPERATION-

The Pre planting operation like site clearance, and alignment stacking will be taken up preferably by the end of February and latest by the end of March. Pits of the dimension 45 x 45 x 45 cm. will be dugout @ 1600 per ha over 22.697 ha preferably 2 months before or at least a month before planting of seedlings.

C. PLANTING OPERATION

Planting of seedlings will be taken up in the month of July. The polythene covering of the balls 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 ball 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 after sprouting of the stumps is complete or after the seedlings have started throwing up new buds.

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 @ 50 grammes of patent mixtures like 'Gromor' or N.P.K. (2:2:1) will be applied in two split doses one in August and the other in September.

D (4)-SOIL MOISTURE CONSERVATION

Soil conservation measures like gully control measure, staggered counter trenches and loose boulder check dams etc. will be taken up on the site as per the requirement of the field according to the provision provided in the norm.

D (5)-PROTECTION AGAINST FIRE AND BIOTIC INTERFERENCE

It is proposed to protect the CA plantation from grazing by domestic animals using GI Chain Link Mess Fencing. The total length of such fencing for all the three patches comes to 4.77 Km (4771 Mt). 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 from grazing.

CHAPTER- VI

COST STRUCTURE OF PLANTATION, PROVISION OF FUNDS AND UTILIZATION

COST NORM FOR BALD HILL PLANTATION @ 1600 PLANTS PER HECTARE						
(Labour cost @ Rs 311/- per manday) (18 months old seedlings)						
Sl No	Item of Work	Preferable Period of execution	Manday	Labour Cost @ Rs. 311/- per day	Material Cost per hectare in Rs.	Total Cost in per hectare in Rs.
PREVIOUS YEAR (ADVANCE WORK) NURSERY RAISING						
1	Nursery Cost (18 month old Seedlings) @ Rs. 37.97 part (Rs. 9.45 to be released) for 1760 seedlings (1600+160)	Nov-March	44	13684.00	2948.00	16632.00
	Total		44	13684.00	2984.00	16632.00
2	Monitoring & Supervision charge 5% of the total cost					831.60
	Grand Total		44	13684.00	2984.00	17463.60
PREPARATORY OPERATION (0TH YEAR)						
1	Survey and demarcation	June	2	622.00	0.00	622.00
2	Pitting (1600 per ha) each pit-45 cm ³	Nov-Dec	128	39808.00	0.00	39808.00
3	Soil and water conservation measures	Sep-Nov	130	40430.00	0.00	40430.00
	(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	July-Aug	10	3110.00	0.00	3110.00

4	Raising of seedlings (18 months seedlings) in poly bags @ Rs.37.97 seedlings @ Rs. 24.10 to 1760 saplings to be raised for one hectare (1600+160)	April-March	111.67	34729.37	7686.63	42416.00
	TOTAL (0th year)		381.67	118699.37	7686.63	126386.00
5	Monitoring & Supervision charge 5% of the total cost					6319.30
	GRAND TOTAL		381.67	118699.37	7686.63	132705.30
PLANTING OPERATION (1ST YEAR)						
1	Nursery (18 months seedlings) (balance) from April-June/July @ Rs.4.42 per seedlings for 1760 seedlings	April-July	22	6842.00	937.20	7779.20
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	June-July	109	33899.00	0.00	33899.00
3	Cost of Fertile Soil 0.25 cft @ Rs.8 per cft/FYM 0.25 cft @ Rs.15 per cft per pit		0	0.00	9200.00	9200.00
4	Sowing of seeds on dug out earth of trench	June	6	1866.00	200.00	2066.00
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 & Transportation from CN to Planting Site to a lead of 15 Km @Rs.6/- Per Seedling	July-August	36	11196.00	10,560.00	21756.00
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	0.00	4480.00	4480.00
7	Maintenance of soil and Moisture Conservation measures (20% of cost)	October-December	26	8086.00	0.00	8086.00
8	Closure to grazing fire and other biotic interference by engaging watch & ward	April-March	30	9330.00	0.00	9330.00
9	Fire tracing and control, display board construction, painting / writing, other miscellaneous cost	Jan-Feb	10	3110.00	360.00	3470.00
	TOTAL (1st Year)		239.00	74329.00	25737.20	100066.20
	Monitoring & Supervision charge 5% of the total cost					5003.31
	GRAND TOTAL		239.00	74329.00	25737.20	105069.51
MAINTENANCE OPERATION (2ND YEAR)						
1	Casualty replacement-6 MD including seedling cost @Rs.37.97 per seedling and its transportation to a lead of 15 Km from CN to Site Cost @Rs.6/- Per Seedling for 160 Seedlings=Rs960/-	June-July	10	3110.00	7035.20	10145.20
2	Soil working- 7 MD, 1st weeding-6 MD, 2nd weeding -6 MD and fertilizer application -4 MD	August-October	23	7153.00	0.00	7153.00

3	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	0.00	1984.00	1984.00
4	Maintenance of Soil and Moisture Conservation measures (20% of cost)	August-October	26	8086.00	0.00	8086.00
5	Fire tracing and control and other miscellaneous cost	Feb-March	10	3110.00	0.00	3110.00
6	Closure to grazing, fire and other biotic interference by engaging watch and ward	April-March	30	9330.00	0.00	9330.00
TOTAL (2nd Year)			99	30789.00	9019.20	39808.20
Monitoring & Supervision charge 5% of the total cost						1990.41
GRAND TOTAL			99	30789.00	9019.20	41798.61
MAINTENANCE OPERATION (3RD YEAR)						
1	SMC Measures (Renovation)-26 MD and Maintenance of plantation- 14 MD as per requirement	Apr-Mar	40	12440.00	0	12440.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
TOTAL (3rd Year)			58	18038.00	0	18038.00
Monitoring & Supervision charge 5% of the total cost						901.90
GRAND TOTAL			58	18038.00	0	18939.90
MAINTENANCE OPERATION (4TH YEAR)						
1	SMC Measures 21 MD and Maintenance of plantation 14 MD	Apr-Mar	35	10885.00	0	10885.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
TOTAL (4th Year)			53	16483.00	0	16483.00
Monitoring & Supervision charge 5% of the total cost						824.15
GRAND TOTAL			53	16483.00	0	17307.15
MAINTENANCE OPERATION (5TH YEAR)						
1	SMC Measures- 21 MD and Maintenance of plantation- 14 MD	Apr-Mar	35	10885.00	0	10885.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
TOTAL (5th Year)			53	16483.00	0	16483.00
Monitoring & Supervision charge 5% of the total cost						824.15
GRAND TOTAL			53	16324.00	0	17307.15
MAINTENANCE OPERATION (6TH YEAR)						
1	SMC Measures-21 MD and Maintenance of plantation -14 MD	Apr-Mar	35	10885.00	0	10885.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
TOTAL (6th Year)			53	16483.00	0	16483.00
Monitoring & Supervision charge 5% of the total cost						824.15
GRAND TOTAL			53	16483.00	0	17307.15
MAINTENANCE OPERATION (7TH YEAR)						

1	SMC Measures- 21 MD and Maintenance of plantation- 14 MD	Apr-Mar	35	10885.00	0	10885.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
TOTAL (7th Year)			53	16483.00	0	16483.00
	Monitoring & Supervision charge 5% of the total cost					824.15
	GRAND TOTAL		53	16483.00	0	17307.15
MAINTENANCE OPERATION (8TH YEAR)						
1	SMC Measures-21 MD and Maintenance of plantation- 14 MD	Apr-Mar	35	10885.00	0	10885.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
TOTAL (8th Year)			53	16483.00	0	16483.00
	Monitoring & Supervision charge 5% of the total cost					824.15
	GRAND TOTAL		53	16483.00	0	17307.15
MAINTENANCE OPERATION (9TH YEAR)						
1	SMC Measures- 21 MD and Maintenance of plantation- 14 MD	Apr-Mar	35	10885.00	0	10885.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
TOTAL (9th Year)			53	16483.00	0	16483.00
	Monitoring & Supervision charge 5% of the total cost					824.15
	GRAND TOTAL		53	16483.00	0	17307.15
MAINTENANCE OPERATION (10TH YEAR)						
1	SMC Measures- 21 MD and Maintenance of plantation- 14 MD	Apr-Mar	35	10885.00	0	10885.00
2	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
TOTAL (10th Year)			53	16483.00	0	16483.00
	Monitoring & Supervision charge 5% of the total cost					824.15
	GRAND TOTAL		53	16483.00	0	17307.15

ABSTRACT						
Sl. No.	Year	No. Person Day	Labour cost @ Rs 308.00 per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	Previous Yr	44	13684.00	2948.00	831.60	17463.60
2	0th Year	381.70	118699.37	7686.63	6319.30	132705.30
3	1st Year	239.00	74329.00	25737.20	5003.31	105069.51
4	2nd Year	99	30789.00	9019.20	1990.41	41798.61
5	3rd Year	58	18038.00	0	901.90	18939.90
6	4th Year	53	16483.00	0	824.15	17307.15
7	5 th Year	53	16483.00	0	824.15	17307.15
8	6 th Year	53	16483.00	0	824.15	17307.15
9	7 th Year	53	16483.00	0	824.15	17307.15
10	8 th Year	53	16483.00	0	824.15	17307.15
11	9 th Year	53	16483.00	0	824.15	17307.15
12	10th Year	53	16483.00	0	824.15	17307.15
	Total	1192.67	370920.37	45391.03	20815.57	437126.97

In case of Bald Hill Plantation, the hills having more than 30% slope will qualify for Bald Hill Plantation norm. In remaining areas of the hill, cost norm for normal plantation @ 1600 plants per hectare will be applicable. In case of highly refractory sites having rocky out crop having less than 30% slope, the concerned CFs/RCCFs I/C circle will have to certify specifically about the Bald Hill characteristics of the site. In case of high hills, the upper portion may qualify for Bald Hill Cost Norm and the foot hill with normal soil depth may be taken up at par with norms applicable for normal plantation. But the provision of fencing Bald Hill Plantation Norms will be available for the entire plantation in such case also. Further the detail standard prevailing plantation cost norm and estimate of other works will be followed during the execution.

ESTIMATE FOR G.I. CHAIN LIN MESS FENCING

ANALYSIS OF RATES

	Earth work in Ordinary Soil or gravel mixed with stone boulder not exceeding 0.014cum in volume within 50mt initial lead and 1.5 mt initial lift including rough dressing and breaking of clod to maximum 5cm to 7cm and laying in layers not exceeding 0.3m depth for 100cum					
1	Male Mulia	16.00	311.00	Per 1	= Rs.	4,976.00
	Female Mulia	16.00	311.00	Per 1	= Rs.	4,976.00
	Total					9,952.00 /100 Cum
	Earth work in Hard Soil or gravel mixed with stone boulder not exceeding 0.014cum in volume within 50mt initial lead and 1.5 mt initial lift including rough dressing and breaking of clod to maximum 5cm to 7cm and laying in layers not exceeding 0.3m depth for 100cum					
2	Male Mulia	21.50	311.00	Per 1	= Rs.	6,686.50
	Female Mulia	21.50	311.00	Per 1	= Rs.	6,686.50
	Total					13,373.00 /100 Cum
	Earth work in stony earth and gravel mixed with stone boulder not exceeding 0.014cum in volume within 50mt initial lead and 1.5 mt initial lift including rough dressing and breaking of clod to maximum 5cm to 7cm and laying in layers not exceeding 0.3m depth for 100cum					
3	Male Mulia	33.53	311.00	Per 1	= Rs.	10,427.83
	Female Mulia	33.53	311.00	Per 1	= Rs.	10,427.83
	Total					20,855.66 /100 Cum
4	Earth work in all kinds of soil including all					
	Total for Ordinary Soil					9,952.00 /100 Cum
	Total for Hard Soil					13,373.00 /100 Cum
	Total For Stoney Earth					20,855.66 /100 Cum
	Total					44,180.66 /100 Cum
	Total Average					14,726.89 /100 Cum
	Total Average Per Cum					147.27 /1 Cum
	C.C. (1;1.5;3) using 12cm size C.B.G Metal of approved quality quarried and free from weathered skins and foreign material including mixing the materials and laying the concrete in layers not exceeding 0.15 m in depth to required level curing ramming, finishing, etc. with all leads, lifts, and delifts complete in all respect to proper profile and level including dewatering if necessary and cost, fonveyance, royalty and other taxes etc. complete as directed by the Engineer-in-charge.					
5						
A	MATERIAL					
	12cm HBG Metal	0.90	1,128.57	Per 1	= Rs.	1,015.71
	Sand	0.45	56.19	Per 1	= Rs.	25.29
	Cement	4.29	640.00	Per 1	= Rs.	2,745.60
	Total (A)				= Rs.	3,786.60 /Cum
B	LABOUR					
	Masson 2nd Class	0.68	401.00	Per 1	= Rs.	272.68
	Man Mulia	1.80	311.00	Per 1	= Rs.	559.80
	Female Mulia	1.40	311.00	Per 1	= Rs.	435.40
	Male mulia (for mixing)	1.40	311.00	Per 1	= Rs.	435.40
	Total (B)				= Rs.	1,703.28 /Cum
	TOTAL OF (A+B)				= Rs.	5,489.88 /1 Cum
C	LEAD/ROYALTY					
	12cm C.B.G Metal	0.90	411.67	Per 1	= Rs.	370.50
	Sand	0.45	580.67	Per 1	= Rs.	261.30
	Cement	4.29	24.40	Per 1	= Rs.	104.68

Total (C)	=	Rs.	736.48	
GRAND TOTAL (A+B+C)	=	Rs.	6,226.36	/1 Cum
6 Supplying uncoated HYSD bar reinforcement complete including cost, conveyance of MS rod of 10 MM gauge.				
A MATERIAL				
HYSD bar including 5 %				
OH & Waste	10.50	5,950.00	Per 1	= Rs. 62,475.00
Total (A)				= Rs. 62,475.00 /10 Qtl
B LEAD/ROYALTY				
HYSD bar including 5 % OH & Waste	10.50	24.40	Per 1	= Rs. 256.20
Total (B)				= Rs. 256.20 /10 Qtl
GRAND TOTAL (A+B)				= Rs. 62,731.20 /10 Qtl
Rate PER 1Qtl				= Rs. 6,273.12 /1 Qtl

DETAIL ESTIMATE FOR G.I. CHAIN LIN MESS FENCING FOR 1 KM

Sl No	Description of Item	No	Length	Breadth/dia	Height	Qty	Unit	Rate	Amount
1	Site Clearance over length 1.0 Km & 2.0 Mtr and removed the unsalable materials outside 22 Nos. Mulis @311/- per day	-	1 Km	2 Mtr	-	22	Md	311	6,842.00
2	Cost of RCC Finicing post of size 6'-6" x 0'-5" x 0'-4" with T bottom of size (1'-0" x 0'-4" x 0'-4") including steel work shuttering, carriage loading & Unloading at work site on LS over 365 Nos. RCC Pillar @381.36/- each. 365 Nos. @Rs. 381.36 = Rs. 139196.400 CGST 9% = Rs. 12527.676 OGST 9% = Rs. 12527.676 Total = Rs. 164251.752 or say Rs. 164250/- (330 Main Pillar and 35 Stray Pillar)	-	-	-	-	365	Nos	450	1,64,250.00
3	Digging of pits of size 0.46 x 0.46 x 0.46 x 365 Nos Pit = 35.53 Cum @147.27/ Cum Rs.5232.16 for (330 Main Pillar and 35 stray Pillar)	365	0.46	0.46	0.46	35.53	Cum	147.27	5,232.16
4	Fixing of RCC post with plaincement concrete (1:1.5:3) using 12 mm BHG chips with short carriage manually from truck able point to work site of RCC post including cost of materials, labour Royalty watering etc. for 330 main pillar and 35 stray pillar 365 Nos x 46 x 46 46 +35.53 cum for 1/2 pits 17.76 Cum @ Rs.7804.85/Cum	365	0.46	0.46	0.46	17.76	Cum	6226.36	1,10,580.15
5	Cost of GI Chain link mess 4" x 4" x 8 gauge with 1.8 Mtr with delivery at work site including OGST & CGST 1000 Mtr x 1.8 Mtr = 1800 Sqmtr @318.00/Sqm.	-	1000	-	1.8	1800	Sqm	318	5,72,400.00
6	PCC work in fixing between the fix RCC Pillar for fixing GI chain link mesh and MS rod with ground 330 Nos x 0.2 x 0.02 x 2 sides= 5.28 cum @7804.85	330	0.2	0.2	0.2	5.28	Cum	6226.36	32,875.18
7	Distribution of GI chain link mesh over 1.0 Km & tying with RCC post by GI binding wire embending the MS ROD by digging of 6" depth channel along the boundary line wit fixing net hooks at in interval. 126 Nos of adult Male Mulia @311/- each	-	-	-	-	126	Md	311	39,186.00
8	Cost of MS Rod 2.5 Quintal @6273.12/Qntl.	-	-	-	-	2.5	Qtl	6273.12	15,682.80
9	Misilaneous Expenditure i.e. Binding Wires 8 Kg @Rs.80/- Kg	-	-	-	-	8	Kg	80	640.00
							Sub Total		9,47,688.29
10	Labour Cess 1 %	-	-	-	-	-	-	-	9,476.88
11	Provision of one Iron Gate of size (10' x 6') on LS with all complete etc.	-	-	-	-	-	-	-	23,400.00
12	Unforseen Item	-	-	-	-	-	-	-	834.83
							Grand Total		9,81,400.00

DETAILS OF PROPOSED MONITORING MECHANISM

Compensatory Afforestation will be taken up in the identified site by the Range Officer, Semiliguda Forest Range of Koraput Division. The Range Forest Officer, Semiliguda Forest Range will undertake field checks of the works undertaken at the identified site and will be cross checked by the Asst. Conservator of Forests, (Affn.) and Divisional Forest Officer, Koraput Division. GPS co-ordinates along with other required information of Compensatory Afforestation will be uploaded in the e-Greenwatch Portal of NIC, MoEF & CC, Govt. of India for the purpose of online monitoring. Annual progress of plantation involving growth of planted seedlings, survival percentage etc. will be monitored and recorded in the plantation journal by the field staffs of Seimiliguda Forest Range and reported to the Divisional Forest Officer for necessary action. The same thing will be reported to the Regional Chief Conservator of Forests, Koraput Circle and Chief Conservator of Forests (PP&A), O/o the Pr. Chief Conservator of Forests, Odisha, Bhubaneswar and necessary corrective measures will be followed if required so.


TOTAL COST OF PROJECT

1.	Plantation over 22.697 ha @ 1600 seedlings/ha @ Rs. 437126.97/ha	9921470.83
2	Cost towards GI Chain Link Mesh fencing over 4.771 km @ Rs 9,81,400/km	4682259.40
	Sub Total	14603730.23
3	Add 20% escalation	2920746.04
	Grand Total	17524476.27 Or say 1,75,24,476.00

(Rupees One Crore Seventy Five Lakh Twenty Four Thousand Four Hundred Seventy Six) only.

A. PROVISION OF FUNDS AND FUND UTILIZATION

Rs. 1, 75, 24,476.00 (Rupees One Crore Seventy Five Lakh Twenty Four Thousand Four Hundred Seventy Six) only shall be deposited by the User Agency M/s Odisha Mining Corporation Ltd on approval of the scheme in Ad-hoc CAMPA Account and the funds will be utilized for raising of Compensatory Afforestation by the Divisional Forest Officer, Koraput Division on allotment by the Principal Chief Conservator of Forests, Odisha, Bhubaneswar.


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