

**SCHEME FOR
COMPENSATORY AFFORESTATION
OVER 58.757 HA. OF GOVT.
NON-FOREST LAND IDENTIFIED IN
VILLAGE SAN-SIBNATHPUR
UNDER GURUNDIA TEHSIL OF
BONAI RANGE
IN
BONAI FOREST DIVISION
AGAINST MINING PROJECT
OF
DHOLTA PAHAR IRON ORE BLOCK
OF
M/S KASHVI POWER & STEEL PVT. LTD.**

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M/S KASHVI POWER & STEEL PVT. LTD.**

1. INTRODUCTION:

M/s Kashvi Power & Steel Pvt. Ltd. has submitted a proposal for diversion of 60.508 ha. of forest land (including 2.331 ha. of earmarked as Safety Zone) in allotted Mining Project of Dholta Pahar Iron Ore Block. Equal extent of non-forest land is required for Compensatory Afforestation.

The Compensatory Afforestation Scheme has been prepared for raising Compensatory Afforestation over 58.757 Ha. of Govt. Non-forest land in village San-Sibnathpur under Gurundia Tehsil of Bonai Range of Bonai Forest Division of Sundargarh District. The Scheme aims to compensate the loss of 60.508 ha. of forest land proposed for diversion in allotted Mining Project of Dholta Pahar Iron Ore Block of M/s Kashvi Power & Steel Pvt. Ltd. in Bonai Division. The Govt. non-forest land has been jointly verified in the field by the Revenue and the Forest authorities. The Govt. non-forest land over 58.757 ha. has been jointly verified and found suitable for plantation being free from encroachment and encumbrances. The land identified for Compensatory Afforestation has not been included in the DLC report.

A total of 58.757 ha. of non-forest Govt. land which has been identified for Compensatory Afforestation is fit to take up AR Plantation @ 1000 plant per hectare over 52.00 ha. and @1600 plants per hectare over 5.00 ha. as reported by the Range Officer, Bonai Range. The cost estimate for this plantation has been calculated as per cost norm for AR Plantation of @1000 plants per ha. and @1600 plants per hectare, which is enclosed vide **Annexure-I & II** respectively.

2. IDENTIFICATION OF THE GOVT. NON-FOREST LAND:

The non-forest land over 58.757 ha. has been identified in one compact patch for Compensatory Afforestation in village San-Sibnathpur under Gurundia Tehsil of Sundargarh District. The Land Schedule of the area identified for Compensatory Afforestation is furnished below.

LAND SCHEDULE

Tahasil	Village	Khata No.	Plot No.	Kissam of Land	Area in (Ha.)
1	2	3	4	6	5
Gurundia	San-Sibnathpur	7 (AAA)	29	Pahad	28.414
			31	Pahda	19.474
			32	Pahad	10.869
TOTAL:-					58.757

The said non-forest land has been jointly verified by Revenue and Forest Department officials.

During the course of joint verification, the land so identified is found suitable for raising Compensatory Afforestation and the area does not find place in the DLC report. Besides, the said non-forest land is free from encroachment and encumbrance and suitable for plantation, which has been certified by the Tehsildar, Gurundia and Range Officer, Bonai Range (**Annexure-VI**). The Compensatory Afforestation work is to be taken up in the above patches of land as per land schedule given above. Further the identified area has been verified with the help of Decision Support System (DSS) & found suitable for Compensatory Afforestation. The DSS report is attached as (**Annexure-VII**).

The Certificate on DSS analysis report in the prescribed format is enclosed as (**Annexure-VIII**).

3. TOPOGRAPHY AND SOIL:

The non-forest land identified for this purpose is almost plain. The soil is mostly sandy loam to clayey with soil mixed patch. The area experiences tropical climate with monsoon rainfall.

4. CLIMATE

The study area lies in tropical region where climate is characterised by very hot summers and cool winters. The Summer season usually starts from March and continue upto June during which monthly temperature ranges from a maximum of 42°C during daytime to a minimum of 15°C at night. Winter usually starts from November and continue upto February during which the maximum temperature goes up to 33°C during day time and goes down to 8°C during night time. The average annual rainfall as recorded is 1269.1 mm.

5. EXISTING VEGETATION.

The non-forest land identified for raising Compensatory Afforestation contains Sal, Kendu and bushes and the density of the vegetation is about 0.1.

6. OBJECTIVE OF THE SCHEME:

- i) To restock the barren forest land by planting suitable species.
- ii) To improve the micro-edaphic conditions by undertaking suitable soil and moisture conservation measures.
- iii) To protect the area against encroachment, illicit felling, fire occurrence, grazing etc., so as to check further degradation of the area.
- iv) To provide gainful employment to the local people mainly involving SC/ST population.
- v) To create awareness among the local villagers on protection and maintenance of plantation and forest.

7. PROPOSED TECHNIQUE:

To achieve the above objectives, it has been proposed to take up AR Plantation @ 1000 seedlings per hectare at a spacing of 2.5 mtr x 2.5 mtr over 52 ha. and AR Plantation @ 1600 seedlings per hectare over 5 ha. (18 months old seedlings) in the identified area of village San-Sibnathpur of Bonai Range. The said plantation work shall be undertaken in the 0th year (Pre-plantation operation) followed by first year plantation work and maintenance during 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, & 10th year. The detailed expenditure statement per hectare is enclosed as **Annexure-I & II** respectively.

(A). SURVEY AND DEMARCATION:

The area is surveyed and demarcated in the field with the help of D.G.P.S. The DGPS co-ordinates of the boundary of the site are mentioned in the Map. RCC Pillars of usual size will be posted along the boundary line. This operation will be helpful in future maintenance and management.

(B). REGENERATION CLEANING AND TENDING OPERATION:

The operation aims at tending the existing crop silviculturally for better growth. It involves removal of inferior and diseased tree growth. During this operation, climbers etc which interferes with the growth of the existing crop are to be cut. This operation helps sapling to grow better and faster. The site clearance is to be done by cutting and removal of Eupatorium and all other unwanted growth.

The following operation will be carried out during the operation.

- i) Cutting back of individual inferior poles interfering with the growth of better ones.
- ii) Cutting back of malformed and diseased individuals.
- iii) Singling of coppice shoots & retaining healthier ones.
- iv) Cutting of climbers.
- v) Cutting back of high stumps flush to the ground.
- vi) Pruning the branches of the poles up to hand reach.

During 1st year operation, climber cutting, high stump cutting, and cutting of shrub, herbs, malformed and diseased plants will be done. In the next two years, cutting of individuals and singling of economically important species will be done.

(C). PLANTATION:

The area will be stocked by way of raising plantation in ANR with gap Plantation. Taking in to consideration the soil condition, the local habitation and suitability of the site, the following species are selected.

- | | |
|--|--|
| 1. <i>Dalbergia latifolia</i> (Sisoo) | 7. <i>Gmelina arborea</i> (Gambhari) |
| 2. <i>Pongamia pinnata</i> (Karanja) | 8. <i>Mangifera indica</i> (Mango) |
| 3. <i>Emblia officinalis</i> (Amla) | 9. <i>Artocarpus heterophyllus</i> (Panas) |
| 4. <i>Terminalia belerica</i> (Bahada) | 10. <i>Limonia acidissima</i> (Kaitha) |
| 5. <i>Terminalia chebula</i> (Harida) | 11. <i>Syzygium cumini</i> (Jamu) |
| 6. <i>Acacia catechu</i> (Khair) | |

The following operations will be taken up for plantation;

i) Raising of nursery:

Seedlings required for plantation shall be raised in a temporary nursery nearer to the planting site and water sources. Nursery work will be started 18 months prior to the year of plantation so that quality seedling stock will be available for plantation. The seedlings shall be raised 10% extra besides the actual requirement to compensate the casualties. Seedlings will be raised in polythene bags of 9" x 5" size following standard nursery practice.

ii) Alignment and pitting:

Alignment and pitting will be taken up in the month of March-April, Pits of size 45cm x 45cm x 45cm will be dug maintaining a spacing of 2.5mtr x 2.5mtr @1000 and 1600 seedlings per ha. It is proposed to take up Plantation in the blank patches.

iii) Actual Planting:

The seedlings will be planted @1000 & 1600 seedlings per ha. in the dug out pits of size 45cm x 45cm x 45cm with a spacing of 2.5mtr x 2.5mtr. Plantation shall be taken up after first regular shower of monsoon and completed by the end of July. Species will be planted as per suitability of the soil condition. NPK/ Bio fertilizer @50gms per plant shall be applied as basal dosage. Anti-termite insecticide shall also be applied to each pit while planting. Casualties if any noticed shall be replaced with the excess seedlings raised for the purpose. During second year also, casualty replacement will be done for which seedlings shall be raised.

iv) Weeding, Soil working & manuring :

For establishment and better growth of the planted seedlings, timely weeding, soil working and manuring are necessary. It is proposed to carry out two weedings, soil working and manuring during the first year and second year of plantation and one weeding and soil working during third year. During first year and second year, first weeding and manuring shall be carried out during August-September and the second one during October-November along with soil working. First weeding shall be around the plants and the second will be of strip weeding. The weeding of third year will be around the plants, which will be carried out during August.

After each weeding, soil working will be done around each plant at a radius of 0.5mtr, and manuring of each plant will be done @50grms of NPK/ Bio fertilizer per plant in ring form.

v) Application of insecticides:

After planting of good healthy seedlings, the plantation site may cause influx of insects, which usually eat and damage the tender leaves and shoots of the plants. To get rid of such insect attack, application of insecticides will be taken up in required doses at desired intervals. Spraying of insecticides shall be done preferably in a sunny day in the forenoon as per requirement.

vi) Fire line tracing and maintenance:

Fire causes heavy loss to the forest & plantation during fire season. To prevent incidence of fire, the area shall be divided in to suitable blocks by tracing fire lines. Boundaries of the plantation patches and these block lines will be scrapped of the growth to a width of 2.0mtr during February-March and the cut back materials and the dry leaves stacked along these lines will be burnt under strict supervision. This operation shall be carried out for three years.

8. SOIL CONSERVATION MEASURES:

The site selected for Compensatory Afforestation is degraded Reserve Forest, undulating, and gullies have been formed due to erosion. So, Soil Conservation Measures like Staggered Trench, Percolation Pit, Contour Trench, Graded earthen bund, LBCD, Wire mesh LBCD, Sub surface Dyke and WHS as per site requirement have been proposed. The cost norm of SMC is enclosed as **Annexure-IV.**

9. FENCING:

To protect the AR plantation from biotic interference, Angle Iron & Chain link wire mesh fencing is proposed over the identified area of 58.757 ha. in village San-Sibnathpur of Bonai Range. The total perimeter of the said identified area is 5170 RMT (Or, 5.170 Km) length of boundary.

The cost norm for Angle Iron & Chain link wire mesh fencing is enclosed as **Annexure-III.**

10. WATERING :

Watering of the plantation will be carried out aided by solar system with Borewell (1 system for 5 ha. plantation) fitted with Drip system. The cost norm is furnished as **Annexure-V.**

11. MOTIVATION OF PEOPLE:

As per Govt. resolution of 2011, the villagers of the adjoining village, i.e. San-Sibnathpur and Mushaposh village is to be involved in protection and management of plantation. Before execution of the work, a meeting will be conducted in the above villages and resolution regarding support to plantation activities will be made. To motivate the people in this direction, they will be provided with incentives in shape of different community articles, buildings, and different community amenities of fixed and movable type through entry point activities (EPA). Health camps shall also be organized in the villages.

12. EXECUTING AGENCY :

The Divisional Forest Officer, Bonai Division shall execute the work by involving the local VSS mentioned above.

13. INSPECTION, MONITORING & EVALUATION:

In order to make the Afforestation under this Compensatory Afforestation Scheme successful, intensive inspection of the plantation by the Forest field staff and the Officers at the Divisional level is necessary. Moreover, frequent monitoring and evaluation shall have to be done at different stages.

14. REQUIREMENT OF FUNDS:

For implementation of all prescriptions outlined above **₹2,83,19,200/-** (Rupees Two Crore Eighty Three Lakh Nineteen Thousand Two Hundred) only will be required as detailed below.

1.	AR Plantation @1000 plants per hectare over 52.00 ha. @ ₹2,46,454/-	₹	1,28,15,608.00
2.	AR Plantation @1600 plants per hectare over 5.00 ha. @ ₹3,25,623/-	₹	16,28,115.00
3.	Angle Iron & Chain link wire mesh fencing over 5.170 KM (Or, 5170 RMT) @₹1761.19/- per RMT.	₹	91,05,352.00
4.	Soil conservation measures structures like staggered trench, percolation pit, contour trench, graded earthen bund, LBCD, wire mesh, LBCD, Sub surface Dyke and Water Harvesting structures = 58.757 ha X ₹37,415/-.	₹	21,98,393.00
5.	Water provision to plantation: Solar system with Bore well (1 system for 5 Ha. Plantation) fitted with Drip system @ ₹2,33,786/- X 11 nos.	₹	25,71,646.00
	TOTAL :-	₹	2,83,19,114.00
		₹	Or,
		₹	2,83,19,200.00

(Rupees Two Crore Eighty Three Lakh Nineteen Thousand Two Hundred) only.

Divisional Forest Officer,
Bonai Division.

ANNEXURE-I

ANNEXURE-4						
BASE COST NORM FOR COMPENSATORY AFFORESTATION (BLOCK PLANTATION) @ 1000 PLANTS PER HECTARE (18 months old seedling)						
WAGE RATE Rs- 311/- PER MANDAY						
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	2	3	4	5	6	7
0th Year (Advance work) Pre-Planting Operation						
1	Survey, Demarcation and Pillar posting	Nov/Dec	2	622	0	622
2	Preparation of Treatment Map (Digital Map)	Nov/Dec	1	311	100	411
3	Site preparation (Cleaning & removal of debris)	Nov/Dec	12	3732	0	3732
4	Creation of 4.00 mt wide Inspection Path	Feb/Mar	1	311	0	311
5	Alignment and stacking of pits	Feb/Mar	1	311	0	311
6	Digging of pits (45 cm x 45 cm X 45 cm) in hard and gravelly soil	Feb/Mar	40	12440	0	12440
7	Construction of Temporary Labour Shed, Drinking water facility and First-Aid etc.	Jan/Mar	0	0	3500	3500
Total			57	17727	3600	21327
1st Year/Planting Year						
1	Refilling of pits by altering the dugout soil of the pits, application of organic compounds/ CDM/ FYM & mixing the same properly.	Jun/Jul	7.5	2332.50	5000	7332.50
2	Transportation of 18 months old polythene bag seedlings in hired truck /tractor from the Permanent/Mega nursery to planting site including loading & unloading. (Average lead of 10 Rkm) & stacking the seedling @ Rs.6/- per Seedling. (1100 nos.)	Jul/Aug	0	0	6600	6600
3	Watering polypot seedlings at planting site	Jul/Aug	2	622	0	622
4	Conveyance of polypot seedlings on head load from the stacking site to individual dugout pits within the planting site, applying insecticide, fertilizers & planting after scooping the soil with other applied materials & pressing the soil perfectly around the planted seedlings.	Jul/Aug	22.5	6997.50	0	6997.50
5	Cost of Fertilizer & Insecticide (a) NPK/Bio-fertilizer @ 50 gms/plant as basal dose = 50kg @ Rs.30/- per kg = Rs. 1500.00 (b) Urea/Vermicompost/Mo Khata/any other fertilizer in two subsequent doses @ Rs. 750.00 (c) Insecticide/ Bio-pesticide @ 5 gms/plant=5 kg @ Rs.150/- per kg = Rs. 750.00	Jul/Aug	0	0	3000	3000
6	Casualty Replacement @ 10% (100 nos.)	Jul/Aug	2.5	777.5	0	777.5
7	1st weeding & Manuring	Aug/Sept	12	3732	0	3732
8	2nd Weeding, Soil working (1mt. diameter around the plants) & Manuring	Oct/Nov	15	4665	0	4665
9	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
10	Watch & Ward including watering as per requirement	Aug-Mar	12	3732	0	3732
Total			76.50	23791.50	14600.00	38391.50
2nd Year Maintenance						
1	Transportation of 100 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs.6/- per seedling	Jul	0	0	600	600
2	Casualty replacement- 10%	Jul	2.5	777.5	0	777.5
3	Cost of Fertilizer & Insecticide: A) Cost of Insecticide/ Bio-pesticide @ 5 gms/plant = 0.5 Kg @ Rs.150/- per kg = Rs.75/- B) Urea/NPK/Bio-fertilizer/Vermicompost/Mo Khata/any other fertilizer @Rs. 2800/-	July/Aug	0	0	2875	2875
4	Weeding (Complete weeding), Manuring & Soil working, (1mt. diameter around the plants)	Sep/Oct	15	4665	0	4665
5	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
6	Watch & Ward including watering as per requirement	Apr-Mar	18	5598	0	5598
7	Maintenance of Temporary Labour Shed, Drinking water facility and First Aid etc.	Apr-Mar		0	1000	1000
Total			38.5	11973.5	4475	16448.5

Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	2	3	4	5	6	7
3rd Year Maintenance						
1	Cost of Fertilizer(Urea/NPK/Bio-fertilizer/Vermicompost/Mo Khata/any other fertilizer)	July/Aug	0	0	2800	2800
2	Weeding (Complete weeding), Manuring & Soil working, (1mt. diameter around the plants)	Sep/Oct	15	4665	0	4665
3	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
4	Watch & Ward including watering as per requirement	Apr/Mar	18	5598	0	5598
5	Maintenance of Temporary Labour Shed, Drinking water facility and First Aid etc.	Apr/Mar	0	0	1000	1000
Total			36.0	11196	3800	14996
4th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
2	Watch & Ward including maintenance of vegetative fencing	Apr-Mar	18	5598	0	5598
Total			21	6531	0	6531
5th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
Total			21	6531	0	6531
6th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933.0
2	Pruning of branches, Singling out of multiple shoots	Jan/Mar	3	933.00	0	933.0
3	Watch & Ward	Apr/Mar	18	5598.00	0	5598.0
Total			24	7464	0	7464.0
7th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
Total			21	6531	0	6531
8th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
Total			21	6531	0	6531
9th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
Total			21	6531	0	6531
10th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933	0	933
3	Watch & Ward	Apr/Mar	18	5598.00	0	5598
Total			21	6531	0	6531

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

Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Matrrial Cost (In Rs.)	Total cost (In Rs.)	
1	2	3	4	5	6	7	
Sl. No	Year	No. of Mandays	Labour cost (In Rs)	Material Cost(In Rs.)	Monitoring, Evaluation, Learning, Documentation and Other Contingency (5%) of (4+5)	Cost of Seedlings @Rs.50.31 per seedlings	TOTAL COST(In Rs)
1	2	3	4	5	6	7	8
1	0th year	57.0	17727.0	3600.0	973.00	0.00	22300.00
2	1st year	76.5	23791.5	14600.0	1918.50	55341.00	95651.00
3	2nd year	38.5	11973.5	4475.0	821.50	5031.00	22301.00
4	3rd year	36.0	11196.0	3800.0	749.00	0.00	15745.00
5	4th year	21.0	6531.0	0.0	326.00	0.00	6857.00
6	5th year	21.0	6531.0	0.0	326.00	0.00	6857.00
7	6th year	24.0	7464.0	0.0	373.00	0.00	7837.00
8	7th year	21.0	6531.0	0.0	326.00	0.00	6857.00
9	8th year	21.0	6531.0	0.0	326.00	0.00	6857.00
10	9th year	21.0	6531.0	0.0	326.00	0.00	6857.00
11	10th year	21.0	6531.0	0.0	326.00	0.00	6857.00
Total:		358.0	111338.0	26475.0	6791.0	60372.0	204976.0

Note:

- 1 Priority must be given to the indigenous local species available nearby to the site of plantation.
- 2 10 % indigenous fruit bearing trees must be preferred to Plantation.
- 3 Site specific Soil conservation work like LBCD, Gully Plugging, Staggered Trench, Contour Trench, Graded Bund, etc. may be taken up
- 4 Chain link fencing can be adopted in the CA plantation taken up outside the forest area and Bamboo twigs fencing may be preferred
- 5 Watering facilities for procurement of water & watering may be adopted as per the availability of water.
- 6 The Cost Norm of various items can be changed with the approval of the concerned RCCFs keeping the overall cost norm fixed for each Financial Year

APCCF (Forest Diversion & NO, FC Act)

Matrix for Model-I A Conventional CA Plantation (AR) 1000 plants per Ha

Sl. NO.	Comment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost (10 Years)
Base Norm		22300	95651	22301	15745	6857	6857	7837	6857	6857	6857	6857											
1	2021-22	22300	100434	24585	18226	8335	8751	10502	9648	10131	10637	11169											234718
2	2022-23		23415	105456	25814	19137	8752	9189	11027	10130	10638	11169	11727										246454
3	2023-24			24586	110729	27105	20094	9190	9648	11578	10637	11170	11727	12313									258777
4	2024-25				25815	116265	28460	21099	9650	10130	12157	11169	11729	12313	12929								271716
5	2025-26					27106	127078	29883	27154	10133	10637	12765	11727	12315	12929	13575							285302
6	2026-27						28461	128182	31377	23362	10640	11169	13403	12313	12931	13575	14254						299567
7	2027-28							29884	134591	32945	24425	11172	11727	14073	12929	13578	14254	14967					314546
8	2028-29								31378	141321	34593	25646	11731	12313	14777	13575	14257	14967	15715				330273
9	2029-30									32947	148387	36323	26928	12318	12929	15516	14254	14970	15715	16501			346788
10	2030-31										34594	155806	38139	28274	12934	13575	16292	14987	15719	16501	17326		364127

APCCF (Forest Diversion & NO, FC Act)

ANNEXURE-II**ANNEXURE-5**

BASE COST NORM FOR COMPENSATORY AFFORESTATION (BLOCK PLANTATION) @ 1600 PLANTS PER HECTARE (18 months old seedling)						
WAGE RATE Rs- 311/- PER MANDAY						
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	2	3	4	5	6	7
0th Year (Advance work) Pre-Planting Operation						
1	Survey, Demarcation and Pillar posting	Nov/Dec	2	622	0	622
2	Preparation of Treatment Map (Digital Map)	Nov/Dec	1	311	100	411
3	Site preparation (Cleaning & removal of debris)	Nov/Dec	12	3732	0	3732
4	Creation of 4.00 mt wide Inspection Path	Feb/Mar	1	311	0	311
5	Alignment and stacking	Feb/Mar	2	622	0	622
6	Digging of pits (45 cm x 45 cm X 45 cm) in hard and gravelly soil	Feb/Mar	64	19904	0	19904
7	Construction of Temporary Labour Shed, Drinking water facility and First-Aid etc.	Jan/Mar	0	0	3500	3500
Total			82	25502	3600	29102
1st Year/Planting Year						
1	Refilling of pits by altering the dug-out soil of the pits, application of Organic compounds/ CDM/ FYM & mixing the same properly.	Jun/Jul	12	3732	8000	11732
2	Transportation of 18 months old polypot seedlings in hired truck /tractor from the permanent/Mega nursery to planting site including Loading & unloading. (Average lead of 10 Rkm) & Stacking the seedling @ Rs.6/- per Seedling. (1760 nos.)	Jul/Aug	0	0	10560	10560
3	Watering the polypot seedlings at planting site	Jul/Aug	3	933	0	933
4	Conveyance of polypot seedlings on head load from the stacking site to individual dugout pits within the planting site, applying insecticide, fertilizers & planting after scooping the soil with other applied materials & pressing the soil properly around the planted seedlings.	Jul/Aug	36	11196	0	11196
5	<u>Cost of Fertilizer & Insecticide</u> (a) NPK/Bio-fertilizer @ 50 gms/plant as basal dose = 80kg @ Rs.30/- per kg = Rs. 2400.00 (b) Urea/Vermicompost/Mo Khata/any other fertilizer in two subsequent doses @ Rs. 1,200.00 (c) Insecticide/ Bio-pesticide @ 5 gms/plant= 8 kg @ Rs.150/- per kg = Rs. 1200.00	Jul/Aug	0	0	4800	4800

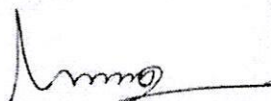
BASE COST NORM FOR COMPENSATORY AFFORESTATION (BLOCK PLANTATION) @ 1600 PLANTS PER HECTARE (18 months old seedling)						
WAGE RATE Rs- 311/- PER MANDAY						
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	2	3	4	5	6	7
6	Casualty Replacement @ 10% (160 nos.)	Jul/Aug	4	1244	0	1244
7	1st weeding & Manuring	Aug/Sept	15	4665		4665
8	2nd Weeding, Soil working (1mt. diameter around the plants) and Manuring	Oct/Nov	20	6220	0	6220
9	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
10	Watch & Ward including watering as per requirement	Aug-Mar	12	3732	0	3732
	Total		105	32655	23360	56015
2nd Year Maintenance						
1	Transportation of 160 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs.6/- per seedlings	Jul	0	0	960	960
2	Casualty replacement- 10%	Jul	4	1244	0	1244
3	<u>Cost of Fertilizer & Insecticide:-</u> A) Cost of Insecticide/ Bio-pesticide @ 5 gms/plant = 0.8 Kg @ Rs.150/- per kg = Rs.120/- B) Urea/NPK/Bio-fertilizer/Vermicompost/Mo Khata/any other fertilizer @Rs. 4486/-	Aug/Sept	0	0	4606	4606
4	Weeding (Complete weeding), Manuring & Soil working (1mt. diameter around the plants)	Sep/Oct	20	6220	0	6220
5	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
6	Watch & Ward including watering as per requirement	Apr-Mar	18	5598	0	5598
7	Maintenance of Temporary Labour Shed, Drinking water facility and First-Aid etc.				1000	1000
	Total		45	13995	6566	20561

BASE COST NORM FOR COMPENSATORY AFFORESTATION (BLOCK PLANTATION) @ 1600 PLANTS PER HECTARE (18 months old seedling)						
WAGE RATE Rs- 311/- PER MANDAY						
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Material Cost (In Rs.)	Total cost (In Rs.)
1	2	3	4	5	6	7
3rd Year Maintenance						
3	Cost of Fertilizer Urea/NPK/Bio-fertilizer/Vermicompost/Mo Khata/any other fertilizer	Sept/Oct	0	0	4486	4486
4	Weeding, Manuring & Soil working, (1mt. diametre around the plants)	Sep/Oct	20	6220	0	6220
5	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
6	Watch & Ward including watering as per requirement	Apr/Mar	18	5598	0	5598
7	Maintenance of Temporary Labour Shed, Drinking water facility and First-Aid etc.	Apr/Mar			1000	1000
	Total		41	12751	5486	18237
4th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m long) including maintenance of inspection path	Feb/Mar	3	933	0	933
2	Watch & Ward	Apr-Mar	18	5598	0	5598
	Total		21	6531	0	6531
5th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
6th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933.0
2	Pruning of branches, Singling out of multiple shoots	Jan/Mar	5	1555.00	0	1555.0
3	Watch & Ward	Apr/Mar	18	5598.00	0	5598.0
	Total		26	8086	0	8086.0
7th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
8th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598
	Total		21	6531	0	6531
9th Year Maintenance						
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933.00	0	933
2	Watch & Ward	Apr/Mar	18	5598.00	0	5598

BASE COST NORM FOR COMPENSATORY AFFORESTATION (BLOCK PLANTATION) @ 1600 PLANTS PER HECTARE (18 months old seedling)							
WAGE RATE Rs- 311/- PER MANDAY							
Sl. No	Items of work	Preferable Period of Execution	No of Mandays	Labour Cost (In Rs.)	Matrrial Cost (In Rs.)	Total cost (In Rs.)	
1	2	3	4	5	6	7	
	Total		21	6531	0	6531	
10th Year Maintenance							
1	Fire line tracing (2 m. wide fire line over 400 m length)	Feb/Mar	3	933	0	933	
3	Watch & Ward	Apr/Mar	18	5598.00	0	5598	
	Total		21	6531	0	6531	
Year wise Abstract of Cost Norm (showing seedling cost separately)							
Sl. No	Year	No. person days	Labour cost @ Rs.311/- per day (Rs)	Material Cost	Monitoring, Evaluation, Learning, Documentation and Other Contingency (5%) of (4+5)	Cost of Seedlings @Rs.50.31 per seedlings	TOTAL COST
1	2	3	4	5	6	7	8
1	0th year	82	25502	3600	1398.00	0	30500.00
2	1st year	105	32655	23360	2800.00	88546	147361.00
3	2nd year	45	13995	6566	1028.00	8050	29639.00
4	3rd year	41	12751	5486	911.00	0	19148.00
5	4th year	21	6531	0	326.00	0	6857.00
6	5th year	21	6531	0	326.00	0	6857.00
7	6th year	26	8086	0	404.00	0	8490.00
8	7th year	21	6531	0	326.00	0	6857.00
9	8th year	21	6531	0	326.00	0	6857.00
10	9th year	21	6531	0	326.00	0	6857.00
11	10th year	21	6531	0	326.00	0	6857.00
	Total:	425	132175	39012	8497	96596	276280

Note:

- 1 Priority must be given to the indigenous local species available nearby to the site of plantation.
- 2 10 % indigenous fruit bearing trees must be preferred to Plantation.
- 3 Site specific Soil conservation work like LBCD, Gully Plugging, Staggered Trench, Contour Trench, Graded Bund, etc. may be
- 4 Chain link fencing can be adopted in the CA plantation taken up outside the forest area and Bamboo twigs fencing may be
- 5 Watering facilities for procurement of water & watering may be adopted as per the availability of water.
- 6 The Cost Norm of various items can be changed with the approval of the concerned RCCFs keeping the overall cost norm fixed for each Financial Year


 APCCF (Forest Diversion & NO, FC Act)

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

Sl. No.	Commence ment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost (10 Years)
Base Norm		30500	147261	29639	19148	6857	6857	8490	6857	6857	6857	6857											
1	2021-22	30500	154729	32674	22266	8335	8751	11377	9648	10131	10637	11169											310117
2	2022-23		32025	162465	34308	23274	8752	9189	11946	10130	10638	11169	11727										325623
3	2023-24			33626	170388	36023	24438	9190	9648	12543	10637	11170	11727	12313									341903
4	2024-25				35307	179117	37824	25660	9650	10130	13170	11169	11729	12313	12929								358998
5	2025-26				37072	186073	39715	26943	10133	10637	13829	11727	12315	12929	13575								376948
6	2026-27					38926	197477	41701	28230	10640	11169	14520	12313	12934	13575	14254							395796
7	2027-28						42872	207351	43786	29705	11172	11727	13246	12929	13578	14254	14567						415587
8	2028-29							42916	217719	45975	31180	11721	12313	16008	13575	14257	14967	15715					436366
9	2029-30							45062	228605	48274	32750	12318	12929	16608	14254	14970	15715	16501					458186
10	2030-31								47315	240035	50688	34388	12934	13575	17648	14967	15715	16501	17326				481096

In Rupees

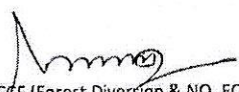
APCCF (Forest Diversion & NO. FC Act)

ANNEXURE-III

Fencing Model-F-II						
Fencing for Compensatory Plantation raised outside the Forest Areas using Angle Iron & Chain Link wire mesh (250 Rmt/ Ha.)						
WAGE RATE Rs- 311/- PER DAY						
Sl. No	Items of work	Preferable Period of Execution	Man days	Wages	Material cost (Rs)	Total Cost (Rs. per Ha.)
0th Year (PPO)						
1	Earth work (excavation of hole) in Hard soil at a distance 3 mt. 0.40m x 0.40m x 0.40m = 0.064 x 84 = 5.376 cum @ Rs. 140/ cum = Rs. 753.		2.42	752.62	0.0	752.6
2	Cement concrete (1: 4: 8) using 40 mm BHG metal 84 X 0.40m X 0.40m X 0.10m = 1.344 @ 3755.94/cum		0	0	5,047.4	5,047.4
3	Angle Iron pole of size 50 mm X 50 mm X 6 mm of height 2.40 mt. 84 x 2.40 = 201.60 Sqmt. @ 4.50/kg/ Sqmt. = 907.20 kg @ 69.50 per kg				63,050.0	63,050.0
4	Cement concrete (1: 2: 4) for fixing the iron angle pole using 12mm BHG Chips 84 X 0.40m X 0.40m X 0.30m = 4.032 cum @ 5486.77/cum				22,123.0	22,123.0
5	Cost of Chain link mess using 4 mm Dia GI wire having gap size 50 mm X 50 mm 250 Rmt X 2.10 mt. = 525 Sq.mt @ 331/Sqmt = Rs. 1,73,775				1,73,775.0	1,73,775.0
6	Double cost painting of iron angle pole over a coat of primer using good quality enamel paint 84 x 2.10 x 0.20 = 35.28 sqmt. @ Rs.108.80/Sqmt				3,838.0	3,838.0
7	Painting of GI chain link mess 250 x 2.10 x 2 = 1050/10 = 105 Sqmt. @ Rs. 108.80 Sqmt.				11,424.0	11,424.0
8	Transposition of Chain link mess, Iron angle, Straighening & tying of chain link mess etc. @ 2% of the total cost.				5,600.0	5,600.0
	TOTAL		2.42	752.62	2,84,857.4	2,85,610.0
Rate per running mt. 2,85,610/ 250= Rs. 1142/Rmt						
1st Year Maintenance						
1	No Maintenance is required.	Sept./Oct	0	0	0	0
2nd Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
3rd Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
4th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
5th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
6th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
7th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
8th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
9th Year Maintenance						
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000
10th Year Maintenance						

Sl. No	Items of work	Preferable Period of Execution	Man days	Wages	Material cost (Rs)	Total Cost (Rs. per Ha.)
1	Maintenance of wire mess fence @ 1% per running mt. cost of installation in 1st yr. 1142x 1% = 11.42 say Rs. 11	Sept./Oct	0	0	11000	11000

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


APCEF (Forest Diversion & NO, FC Act)

Matrix for Fencing Model-F-II (Iron angle with Chainlink wire mesh)

Sl. No.	Comment	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	Total Cost
Base Norm	Year	285610	0	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000
1	2021-22	285610	0	11116	12734	13370	14039	14740	15478	16252	17064	17918											419331
2	2022-23		295891	0	12732	13371	14039	14741	15477	16252	17065	17917	18814										440289
3	2023-24			314886	0	13369	14040	14741	15478	16251	17065	17918	18813	19755									462316
4	2024-25				332630	0	14037	14742	15478	16252	17064	17918	18814	19754	20743								485432
5	2025-26					347162	0	14739	15479	16252	17065	17917	18814	19755	20742	21780							509705
6	2026-27						364520	0	15476	16253	17065	17918	18813	19755	20743	21779	22869						535191
7	2027-28							382746	0	16250	17066	17918	18814	19754	20742	21780	22869	24012					561951
8	2028-29								401883	0	17069	17919	18814	19755	20742	21780	22869	24011	25213				590049
9	2029-30									421977	0	17916	18815	19755	20743	21779	22869	24012	25212	26474			619552
10	2030-31										443076	0	18812	19756	20743	21780	22868	24012	25213	26473	27798		650531

In Rupees

AFCCE (Forest Diversion & NO, FC Act)


ANNEXURE-IV

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Annexure-11			
Cost Norms for creation of Compensatory Afforestation with Stabilization of Soil & Conservation of Moisture (1000)			
WAGE RATE Rs. 311/- PER DAY			
Sl.No	Item of Works	Preferable Period of Execution	Total Cost
0th Year (Pre-Planting Operation)			
1	Nil		0
1st Year			
2	Soil Conservation measure structures like Staggered Trench, Percolation pit, Contour trench, Graded earthen bund, LBCD, Wire mesh LBCD, Sub surface Dyke & WHS as per the slope & site requirement on LS	Apr/Sept.	20,215
2nd Year			
3	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
3rd Year			
4	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
4th Year			
5	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
5th Year			
5	Maintenance of SMC structures @ 15 % of initial year cost	Apr/jul	3,032
Total			32,343.0

Abstract					
Sl. No	Year	No. person days	Labour cost @ Rs. 311/-per day	Material Cost	Total cost (Rs.)
1	0th year	0.0	0.0	0.0	0.0
2	1st year	0.0	0.0	20,215.0	20,215.00
3	2nd year	0.0	0.0	3,032.00	3,032.00
4	3rd year	0.0	0.0	3,032.00	3,032.00
5	4th year	0.0	0.0	3,032.00	3,032.00
6	5th year	0.0	0.0	3,032.00	3,032.00
Total		0.00	0.00	32,343.0	32,343.0

Different types of SMC structures may be taken up as per the scope & requirements of the plantation site out of the design & specification of different structures annexed along this document.


APCCF (Forest Diversion & NO, FC Act)

Matrix for (SMC)

Sl. NO.	Commence ment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
Base Norm		0	20215	3032	3032	3032	3032											
1	2021-22	0	21226	3342	3510	3655	3870											35633
2	2022-23		0	22287	3509	3695	3869	4054										37415
3	2023-24			0	23401	3684	3870	4052	4267									39284
4	2024-25				0	24571	3668	4054	4265	4480								41248
5	2025-26					0	25800	4051	4267	4478	4704							43310
6	2026-27						0	27090	4264	4480	4702	4939						45475
7	2027-28							0	28445	4477	4704	4937	5185					47749
8	2028-29								0	29857	4701	4939	5184	5445				50136
9	2029-30									0	31360	4936	5185	5443	5717			52642
10	2030-31										0	32928	5183	5445	5715	6003		55274

In Rupees

APCCF (Forest Diversion & NO, FC Act)

ANNEXURE-V

Watering Model-W-I				
Watering provision to CA Plantation				
Solar system with Bore well (1 system for 5 Ha Plantation) fitted with Drip system, Wage rate @ Rs.311/-				
Year of Installation (0th Year)				
1	Cost of Borewell		1,50,000	
2	Installation of Solar panel & other System		3,00,000	
3	Cost of 0.5 HP submersable motor with accessories		50,000	
4	Water Storage Tanks/ Flexible pipes		15,000	
5	Cost of laying Drip system including all accessories, fittings etc. with 12% GST		3,02,431	
Total			8,17,431	
6	Cost of Water & watering per Ha. (8,17,431/ 5) = Rs. 1,63,486/-			1,63,486
1st Year Watering				
7	No maintenance required			0
Total				0
2nd Year Watering				
8	Maintenance of system @ 5% of initial cost of instalation			8,174
Total				8,174
3rd Year Watering				
9	Maintenance of system @ 5% of initial cost of instalation			8,174
Total				8,174
4th Year Watering				
10	Maintenance of system @ 5% of initial cost of instalation			8,174
Total				8,174
5th Year Watering				
11	Maintenance of system @ 5% of initial cost of instalation			8,174
Total				8,174

Abstract				
Sl. No	Year	No. person days	Labour cost @ Rs. 311/- per day	Material Cost
1	0th year	0	0.0	163486.0
2	1st year	0	0.0	0.0
3	2nd year	0	0.0	8174.0
4	3rd year	0	0.0	8174.0
5	4th year	0	0.0	8174.0
6	5th year	0	0.0	8174.0
Total:		0	0	196182

APCCF (Forest Diversion & NO, FC Act)

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

Sl. NO.	Commence ment Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Total Cost
	Base Norm	163486	0	8174	8174	8174	8174											
1	2021-22	163486	0	9011	9463	9935	30758											222653
2	2022-23		171650	0	9462	9936	10432	32296										233786
3	2023-24			180243	0	9935	10433	10954	33911									245476
4	2024-25				189255	0	10432	10955	11502	35607								257751
5	2025-26					198718	0	10954	11503	12077	37387							270639
6	2026-27						208654	0	11502	12078	12681	39256						284171
7	2027-28							219087	0	12077	12682	13315	41219					298380
8	2028-29								230041	0	12681	13316	13981	43280				313299
9	2029-30									241543	0	13315	13982	14680	45444			328964
10	2030-31										253620	0	13981	14681	15414	47716		345412

In Rupees

APCCF (Forest Diversion & NO, FC Act)

JOINT VERIFICATION OF LAND SCHEDULE OVER 58.757 HA. IN VILLAGE SAN-SIBNATHPUR, TEHSIL-GURUNDIA, RANGE-BONAI RANGE OF BONAI FOREST DIVISION UNDER BONAI SUB-DIVISION OF SUNDARGARH DISTRICT FOR COMPENSATORY AFFORESTATION IN LIEU OF DIVERSION OF 60.508 HA. OF FOREST LAND IN DHOLTAPAHAR IRON ORE BLOCK OF M/S KASHVI POWER & STEEL PVT. LTD. IN BONAI FOREST DIVISION.

FOREST DIVISION.									
Name of Village	Tehsil	Khata No.	Plot No.	Kisam	Area (in Ha.)	Boundary description			
						North	South	East	West
1	2	3	4	5	6	7	8	9	10
San-Sibnathpur	Gurundia	7 (AAA)	29	Pahad	28.414	Village boundary of Katuridhua	Village boundary of Katuridhua	Plot No.30, 31 & 32 of Sansibnathpur	Village boundary of Katuridhua
			31	Pahad	19.474	Plot No.30 of village Sansibnathpur	Plot No.32 of village Sansibnathpur	Village boundary of Sansibnathpur	Plot No.29 of village Sansibnathpur
			32	Pahad	10.869	Plot No.31 of village Sansibnathpur	Village boundary of Katuridhua	Village boundary of Sansibnathpur	Village boundary of Katuridhua
TOTAL					58.757				

1. Certified that the above non-forest Govt. land identified is in compact patches of 4 ha. or more having adequate soil depth suitable for plantation from management point of view.
2. Certified that the above non-forest Govt. land is free from encroachment and encumbrance.
3. Certified the above Govt. non-forest land not covered under 4 (i) Notification.
4. Certified that the above non-forest Govt. land is not covered under DLC report.
5. Certified that the above non-forest Govt. land is not allotted previously for any other project.
6. Certified that the above Govt. non-forest land not covered under nay ML/PL area.
7. Certified that the above plots not settled in favour of individual / community under the FRA, 2006.
8. Certified that the status of the above plot is non-forest as on 25.10.1980.
9. Certified that the above plots are unfit not only agriculture, but also for other development requirements.
10. Certified that the above plots have no future potential for agrarians or industrial use.

Tehsildar,

Gurundia Tehsil

Revenue Inspector,

Bhadrakpur

BHADRAPUR

1. Certified that the above non-forest Govt. land is in 1 patch of 58.757 ha. having adequate soil depth suitable for plantation from management point of view.

2. Certified that the above non-forest Govt. land found suitable for plantation in AR mode @ 1000 plants over 52.00 ha. and @ 1600 plants per hectare over 5.00 ha.

3. Certified that the above non-forest Govt. land is not covered under any PRF.

Range Officer,

Bonai Range

Bonai Range

Forester,

Dharanidhar Pali Section

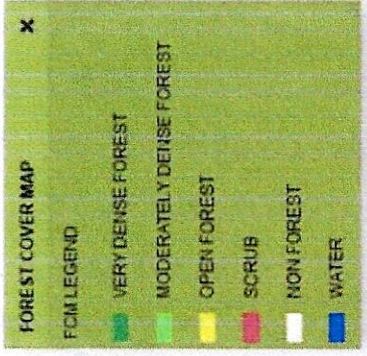
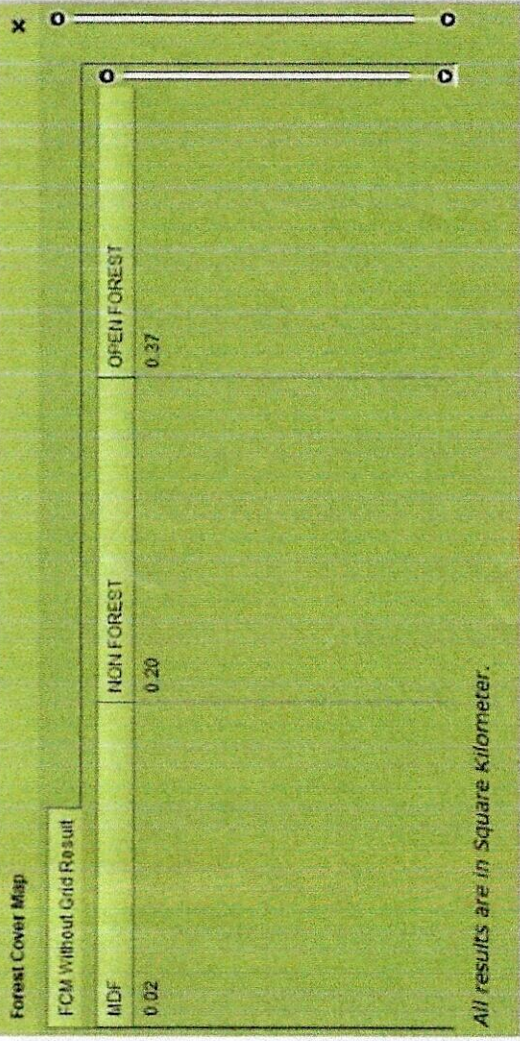
Section Forest Officer

D.D. Pali Section

COUNTERSIGNED

Divisional Forest Officer
Bonai Division

GIS based Decision Support System



Lat : 21.798 Long : 84.859
Scale: 1:5857



CERTIFICATE ON DSS ANALYSIS FOR CA/ACA/PCA

This is to certify that DSS Analysis of land identified for CA/ ACA/ PCA and subsequent ground truthing have been done. The outcome is as mentioned below:

Sl. No	Name of Range	Name of the Forest Block (RF/PRF/PF/DPF/ Revenue Forest)	Area identified for CA/ACA/P CA (in ha.)	Classification of identified land (in ha.)							Area suitable for plantation				Plantation Model (AR/ANR)	Remark
				Very Dense Forest	Moderately Dense Forest	Open Forest	Non-Forest	Scrub	Water	Total	Open Forest	Non-Forest	Scrub	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Bonai	San-Sibnathpur village	58.757	-	1.757	37	20	-	-	58.757	37	20	-	57	AR-1600 plant over 52 ha. and AR-1000 plants over 5 ha.	

Countersigned

RCCF, Rourkela Circle


Divisional Forest Officer
Bonai Forest Division

Financial Outlay for **Compensatory Afforestation Scheme** over an area of **58.757 ha** of **Non-forest land** identified in **San-Sibnathpur** under Gurundia Tahasil in Bonai Forest Range of **Bonai Forest Division** against 60.508 ha of forest land to be diverted for **Dholta Pahar Iron Ore Block** of **M/s Kashvi Power & Steel Ltd.** of Sundargarh District as per approved One-time Cost Norm

Sl. No.	Description	Amount (Rs.)
1.	Cost of AR Plantation @ 1000 Plant per ha over 52.0 ha @ Rs.2,46,454/- per ha with 10 years maintenance	1,28,15,608.00
2.	Cost of AR Plantation @ 1600 Plant per ha over 5.0 ha @ Rs.3,25,623/- per ha with 10 years maintenance	16,28,115.00
3.	Cost of Angle Iron & Chain Link wire mesh fencing over 5.170 Km @ Rs.4,40,299/- per Rmt/ ha with 10 years maintenance	91,05,383.00
4.	Cost of SMC activities like staggered trenches, percolation pits, contour trench, graded earthen bund, LBCD, wire mesh LBCD, Sub-Surface Dyke and WHS as per the slope and site requirement @ Rs.37,415.00 per ha over 58.757 ha with 5 years maintenance	21,98,393.00
5.	Watering model W-I: Borewell fitted with Solar and Drip System (1 Borewell for 5 ha Plantation) for 11 Nos. @ Rs.2,12,444/-	23,36,884.00
Grand Total		2,80,84,383.00 or rounded off to 2,80,84,400.00
6.	Infrastructure to be provided as per consent of the User Agency in kinds	
	i. Supply Mahindra Scorpio-N Z8 L Duesek NT 4WD 7 STR (Pearl White) with all accessories, including RTO, insurance and other charges for monitoring of the CA area	

(Rupees Two Crore eighty lakhs eighty four thousand & four hundred) only

Approved

Sd/- 9/3/23
Principal Chief Conservator of Forests
Forest Diversion & Nodal Officer, FC Act

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