



STATE FOREST HEADQUARTERS  
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS, ODISHA,  
BHUBANESWAR

No . /9F (MG) - 33/2018  
Dated, Bhubaneswar the December, 2020

To

The Deputy Director General of Forests (Central),  
Government of India, Ministry of Environment, Forests & Climate Change,  
Integrated Regional Office, A/3, Chandrasekharapur,  
Bhubaneswar-751023, Odisha

**Sub: Proposal for diversion of 5.888 ha of DLC Forest Land (including 0.562 ha of Safety Zone Area) in village Oraghat of Sundargarh District for Iron & Manganese Mines by M/s Sayed Abdul Halim under Bonai Forest Division (Proposal No. FP/OR/MIN/15807/2015 & State Sl. No.OR-011/2017 dated 16.03.2017).**

Ref:- GoI, MoEF & CC, IRO, BBSR letter No. 5-ORC412/2020 BHU dated 03.04.2020.

Sir,

With reference to the GoI, MoEF & CC, ERO, BBSR letter cited above on the captioned subject, the compliance to the observations pointed out by the GoI, MoEF & CC, ERO, BBSR as received from the RCCF, Rourkela Circle vide his memo no. 1731 dated 10.07.2020 are detailed below:

*1) As per Ministry's guideline issued vide Letter No. 5-2/2017-FC dated 28.03.2019, 0.235 ha (10m wide along both side of village road) will not be considered as part of Safety Zone. Accordingly, State Govt. may identify additional 0.235 ha of non-forest land for compensatory afforestation.*

**Compliance:-** In compliance to the above, the RCCF Rourkela Circle has reported that an additional area of 0.235 ha (0.58 Ac) of non-forest Govt. land has been identified in Plot No 96/692/p of Khata No. 71 of Village-San-Baurkela for the purpose of compensatory afforestation. Accordingly, the DFO, Bonai division has prepared and furnished a compensatory afforestation scheme over **5.564 ha** of Govt. non-forest land in village San-Baurkela under Bonai Range of Bonai Forest division which has been technically approved by PCCF(FD & NO, FC Act) at current wage rate of **Rs 308/-** per manday for **Rs 25,08,800/-**.

A copy of the said CA scheme alongwith the financial outlay is enclosed as **Annexure-1**.

Contd P-2



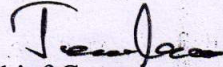
2) On scrutiny of KML file of C.A land in Google Earth, it is observed that some portion of C.A land have agricultural plots/cultivated land. This may be clarified.

**Compliance-:** In compliance to the above, the RCCF Rourkela Circle has reported that the Tahasildar, Bonai has been requested by DFO, Bonai division vide his memo no. 4486 dated 11.05.2020 to submit necessary clarification on the above said matter which is enclosed as **Annexure-2**. In response to the said letter, the Tahasildar, Bonai vide his Letter No. 1455 dated 08.07.2020 addressed to the DFO, Bonai division has clarified that the land schedule identified before for the purpose of compensatory afforestation is free from encroachment, free from Sairat source and also there is no forest growth existing over the said plot. A copy of the said letter of Tahasildar Bonai is enclosed as **Annexure-3**.

In view of the above, the compliance to the conditions imposed by MoEF & CC, Government of India, Eastern Regional Office, Bhubaneswar is sent herewith for according final approval for diversion of 5.888 ha of DLC Forest Land (including 0.562 ha of Safety Zone Area) in village Oraghat of Sundargarh District for Iron & Manganese Mines by M/s Sayed Abdul Halim under Bonai Forest Division under Section 2(ii) Forest (Conservation) Act, 1980.

**Encl: Annexure-1, 2, & 3 in one set**

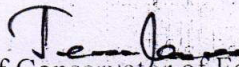
Yours faithfully,

  
Principal Chief Conservator of Forests  
Forest Diversion & Nodal Officer, F.C. Act  
10/12/20

Memo No. 21593 / Dated. 10/12/2020

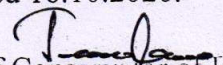
Copy alongwith the compliance forwarded to the Additional Chief Secretary to Government, F&E Department for information and necessary action with reference to F&E Department memo no. 8249/F&E dated 30.05.2020.

**Encl: Annexure-1, 2, & 3 in one set**

  
Principal Chief Conservator of Forests  
Forest Diversion & Nodal Officer, F.C. Act  
10/12/20

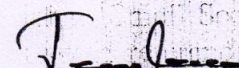
Memo No. \_\_\_\_\_ / Dated.

Copy forwarded to the RCCF, Rourkela Circle, for information and necessary action with reference to his memo no. 1731 dated 10.07.2020 and 3865 dated 16.10.2020.

  
Principal Chief Conservator of Forests  
Forest Diversion & Nodal Officer, F.C. Act  
10/12/20

Memo No. \_\_\_\_\_ / Dated.

Copy forwarded to the DFO, Bonai Forest division for information and necessary action with reference to memo no. 1732 dated 10.07.2020 and 3866 dated 16.10.2020 of RCCF, Rourkela Circle to his address.

  
Principal Chief Conservator of Forests  
Forest Diversion & Nodal Officer, F.C. Act  
10/12/20



**SCHEME FOR  
COMPENSATORY AFFORESTATION  
OVER 5.564 HA. OF  
GOVT. NON-FOREST LAND  
IN VILLAGE SAN-BAURKELA  
UNDER BONAI RANGE  
IN BONAI FOREST DIVISION  
AGAINST THE IRON AND MANGANESE  
MINING PROJECT OF S.A. HALIM  
IN  
BONAI FOREST DIVISION  
Wage Rate – ₹ 303.40**



**SCHEME FOR COMPENSATORY AFFORESTATION OVER 5.564 HA. OF  
GOVT. NON-FOREST LAND IN VILLAGE SAN-BAURKELA UNDER BONAI RANGE IN  
BONAI FOREST DIVISION AGAINST THE IRON AND MANGANESE MINING PROJECT  
OF S.A. HALIM IN BONAI FOREST DIVISION  
WAGE RATE – ₹ 303.40**

**01. INTRODUCTION**

The Lessee S.A. Halim has submitted a proposal for diversion of 5.888 ha. of forest land for mining and ancillary activities including 0.562 ha. for Safety Zone (7.5 Mt. along lease boundary-0.327 ha. and Safety Zone 10 mt along both side of the village road-0.235 ha.) pertaining to Oraghat Iron and Manganese Mines. Equal extent of non-forest land, i.e., 5.561 ha. (5.888 ha. (-) 0.327 ha.) is required for Compensatory Afforestation, excluding the 7.5 Mt. along lease boundary Safety Zone area.

The Compensatory Afforestation Scheme has been prepared for raising Compensatory Afforestation over 5.564 Ha. of Govt. Non-forest land in village San-Baurkela under Bonai Range of Bonai Forest Division, and Bonai Tehsil of Sundargarh District. The Scheme aims to compensate the loss of 5.561 Ha. of forest land proposed for diversion for the above Mining Project 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 5.564 ha. verified jointly is found suitable for plantation being free from encroachment and encumbrances. The land identified for Compensatory Afforestation does not come under DLC report.

Total 5.564 ha. of non-forest land identified for Compensatory Afforestation is free from vegetation. It is proposed to take up Block Plantation of 1600 plant per ha. over 5.564 ha. The cost estimate for this plantation has been calculated as per cost norm for Block Plantation of 1600 plants per ha., which is enclosed vide Annexure-1.

**2. IDENTIFICATION OF THE NON-FOREST AREA:**

The non-forest land over 5.564 ha. has been identified in one compact patch for Compensatory Afforestation in village San-Baurkela under Bonai Tehsil of Sundargarh district. The Land Schedule of the area identified for Compensatory Afforestation is furnished below.

**LAND SCHEDULE**

Sl. No.	Name of village	Khata No.	Plot No.	Kisam	Area (in Ac.)	Remark
1	2	3	4	5	6	7
1.	San-Baurkela	71	96/692/P	Patita	12.25	
2.		71	90	Patita	1.50	
<b>TOTAL :-</b>					<b>13.75 Ac. Or, 5.564 Ha.</b>	



During the course of joint verification, the land so identified was found suitable for raising Compensatory Afforestation, and the area is not included in the DLC report. Besides, the said non-forest land is free from encroachment and encumbrance. Certificates to this effect has been issued by the Tehsildar, Bonai and Range Officer, Bonai is enclosed as **Annexure-6**. The location map showing in the Toposheet is enclosed as **Annexure-7**

**3. TOPOGRAPHY AND SOIL :**

The non-forest land identified for Compensatory Afforestation is located on a plain area. The soil is fairly good. The area experiences sub-tropical climate with monsoon rainfall.

**4. CLIMATE**

The area experiences Sub-tropical climate. It is characterized by very hot summer and cool winter. Maximum temperature during summer rises upto 44<sup>0</sup> Celsius and the minimum goes down to 12<sup>0</sup> Celsius. The area gets rain from South-East Monsoon, which breaks during second fortnight of June and continues upto last week of September. The annual rainfall varies from 780 to 1600 mm. The average annual rainfall is 1400 mm. The bulk of precipitation occurs during July-August. Occasional rainfall occurs during April-May along with thunder storm.

**5. EXISTING VEGETATION.**

The non-forest land identified for raising Compensatory Afforestation contains Neem, Jamu and Char etc.

**6. OBJECTIVE OF THE SCHEME:**

- i) To compensate the loss of forest land over 5.561 ha. to be diverted for the non-forestry purpose and to keep over-all forest area intact as per the provisions of Forest (Conservation) Act'1980 and Rules framed thereunder.
- ii) To improve the micro-edaphic conditions by undertaking suitable soil and moisture conservation measures.
- iv) To protect the area against encroachment, illicit felling, fire occurrence, grazing etc., so as to prevent degradation of the area.
- v) To provide employment to the local people mainly involving SC/ST population.
- vi) To create awareness among the local villagers for protection and maintenance of plantation and forest.



## **7. PROPOSED TECHNIQUE:**

To achieve the above aims and objectives, basing on field survey, it has been proposed to take up Block plantation @ 1600/ ha. at a spacing of 2.5 mtr X 2.5 mtr. in the identified area. The Plantation work will be done in the 1<sup>st</sup> year followed by maintenance during 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> year. The detailed expenditure statement of Block Plantation is enclosed separately as **Annexure-3**.

### **(A). SURVEY AND DEMARCATION:**

The area has been surveyed and demarcated in the field with the help of G.P.S., RCC pillars of usual size has been placed at visible distance along the boundary line. This operation will be helpful in future maintenance and management. The location map with GPS co-ordinates showing in village sheet is enclosed as **Annexure-8**.

### **(B). CLEANING OPERATION:**

The site clearance is to be done by cutting and removing the scattered bushy growth of miscellaneous and unwanted species.

During 0<sup>th</sup> year operation, cutting and removal of bushes will be done.

### **(C). PLANTATION:**

1600 plants per ha. will be planted in Block Plantation over the entire identified area of 5.564 ha. Taking in to consideration the soil condition, local habitation, and suitability of the site, the following species are selected.

1. *Pongamia pinnata* (Karanja)
2. *Azadirachta indica* (Neem)
3. *Emblica officinalis* (Amla)
4. *Terminalia belerica* (Bahada)
5. *Terminalia chebula* (Harida)

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 six months prior to the year of plantation so that quality seedling stock will be available for plantation. 20% extra seedlings shall be raised 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 30cm x 30cm x 30cm will be dug maintaining a spacing of 2.5mtr x 2.5mtr @1600 seedlings per ha. for Block Plantation.



**iii) Actual Planting:**

The seedlings will be planted in the dugout pits of size 30cm x 30cm x 30cm with a spacing of 2.5mtr x 2.5mtr. @1600 seedlings per ha. for Block Plantation. Plantation will be taken up after first regular shower of monsoon and will be completed by the end of July. Species will be planted as per suitability of the soil condition. NPK fertilizer @50gms per plant will be applied as basal dosage 5 gm of anti-termite insecticide will also be applied to each pit while planting. Casualties, if any noticed, shall be replaced with the extra 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 after rains. First weeding shall be around the plants and the second one will be done in strip. In the third year the weeding will be done around the plants, which will be carried out during August.

After each weeding, intensive soil working will be done around each plant at a radius of 0.5mtr, followed by manuring of @50grms NPK per plant in ring form.

**v) Application of insecticides:**

The plantation site, after planting good healthy seedlings, 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 on a sunny day in the forenoon as per requirement.

**vi) Fire line tracing and maintenance :**

Fire causes heavy loss to the forest and 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 off the growth 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 10 years. Provision has been made in the cost norm for the purpose.



## 8. SOIL CONSERVATION MEASURES:

The site selected for Compensatory Afforestation is non-forest land; undulating, and gullies have been formed due to erosion. So, the following special type of Soil Conservation Measures are proposed to improve the site. The treatment Map is enclosed as **Annexure-9**.

(i) **LOOSE BOULDER STRUCTURE**:- Taking into consideration the degradation of the area due to Soil erosion, it has been proposed to take up Soil Conservation Measures by construction of Loose Boulder Structures of following sizes (1mt=7 Nos., 2mt = 4 nos., and 3mt = 6 nos.) over the area.

Name of the Range	Name of the village	Area in ha.	Nos. of LBS		
			1mt	2mt	3mt
Bonai	San-Baurkela	5.564	7 Nos.	4 Nos.	6 Nos.
			@ ₹ 5678/- per LBS = 39,746/-	@ ₹ 10798/- per LBS = 43,192/-	@ ₹ 22647/- per LBS = 1,35,882/-

The details of estimate of 1M span, 2M span, and 3M span size of Loose Boulder Structure are given in **Annexure-2, 3 & 4**.

## 9. WATCH AND WARD:

To protect the area against grazing, fire accident and other biotic interference, there is provision for watch and ward for 10 years in the cost estimate.

## 10. FENCING:

Barbed wire fencing is proposed to be undertaken in the site.

To protect the Block plantation from biotic interference, barbed wire fencing is proposed to be done over 1500 Mtr. around the plantation site by fixing RCC pillar, as per cost norm enclosed as **Annexure-5**.

## 11. MOTIVATION OF PEOPLE :

As per Govt. resolution of 2011, the villagers of the adjoining village, i.e. Patrapali and San-Barunkela are 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. Thus, 15% of the plantation cost has been earmarked for expenditure on this score.



**12. INSPECTION, MONITORING & EVALUATION :**

In order to make the plantation under this Scheme successful, intensive inspection of the plantation by the field staff of Forest Department, and the Officers at the Divisional level is necessary. Moreover, frequent monitoring and evaluation shall have to be done at different stages. The User Agency will provide necessary logistic support for the purpose. For this purpose, 5% of the cost incurred in each year remains included in the cost norm.

**13. EXECUTING AGENCY:**

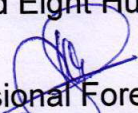
The Divisional Forest Officer, Bonai Division on behalf of State Forest Department shall execute the work by involving the local VSS.

**14. REQUIREMENT OF FUNDS:**

For implementation of all prescriptions outlined above, ₹ 31,55,800/- (Rupees Thirty One Lakh Fifty Five Thousand Eight Hundred) only will be required as detailed below. As there will be efflux of time between the writing of the Scheme and its implementation, the User Agency will pay enhanced wage rate as and when required.

1.	Block plantation over 5.564 Ha. @₹ 1,76,488/- per hectare	₹	9,81,979.00
2.	Cost of Barbed wire Fencing over 1500 RMT (Or, 1.5 Km) @724/- per Mtr. with 3 years maintenance of 3 years (3 <sup>rd</sup> , 6 <sup>th</sup> & 9 <sup>th</sup> ) year.	₹	10,86,000.00
3.	Loose Boulder Structure 1 Mt. Span x 7 Nos. – ₹ 5678/- x 7 = ₹ 39,746/- 2 Mt. Span x 4 Nos. – ₹ 10798/- x 4 = ₹ 43,192/- 3 Mt. Span x 6 Nos. – ₹ 22647/- x 6 = ₹ 1,35,882/- ₹ 2,18,820/-	₹	2,18,820.00
	<b>TOTAL PLANTATION COST :-</b>	₹	<b>22,86,799.00</b>
4.	15% of the total plantation cost for motivation of VSS / People involved as per Govt. Resolution of 2011.	₹	3,43,020.00
	<b>TOTAL :-</b>	₹	<b>26,29,819.00</b>
5.	Add 20% for escalation	₹	5,25,964.00
	<b>Grand Total:-</b>	₹	<b>31,55,783.00</b> Or, ₹ 31,55,800.00

(Rupees Thirty One Lakh Fifty Five Thousand Eight Hundred) only

  
Divisional Forest Officer,  
Bonai Division.



**COST NORM FOR BLOCK PLANTATION @1600 PLANTS PER HECTARE  
(6 month old seedlings)**

**WAGE RATE ₹ 303.40 per day**

SI No.	Item of works	Preferable period of Execution	Person days	Labour cost @303.40	Material cost (Rs.)	Total Cost (Rs.)
1	2	3	4	5	6	7
<b>0th Year (Advance Work)Pre-Planting Operation</b>						
1	Survey, Demarcation & Pillar Posting	Nov / Dec	2	606.80	-	606.80
2	Site preparation	Nov / Dec	12	3640.80	-	3640.80
3	Align and stacking of pits	Jan/ Feb	2	606.80	-	606.80
4	Digging of pits(30cm cube)	Feb / Mar	40	12136.00	-	12136.00
5	Nursery cost (6 months old seedlings) part @ ₹ 12.43/- seedling (₹ 8.67 in the 0th year + ₹ 3.76 in 1st year) for 1760 seedlings (1600+160)	Jan - Mar	44	13349.60	2939	16288.60
	<b>Total :-</b>		<b>100</b>	<b>30340.00</b>	<b>2939.00</b>	<b>33279.00</b>
6	Monitoring & Supervision charge 5% of the total cost.					<b>1663.95</b>
	<b>G.Total :-</b>		<b>100</b>	<b>30340.00</b>	<b>2939.00</b>	<b>34942.95</b>
<b>1st Year/Planting Year</b>						
7	Nursery cost (6 months old seedlings) balance @ ₹ 3.76 for 1760 seedlings	Apr-Jul	21.5	6523.10	593	7116.10
8	Fencing For an average of 250 meters/ha. @Rs.76.80 per meter of bamboo twigs and bamboo thorn fencing	May/June	38	11529.20	8560	20089.20
9	Carriage & planting, casualty replacement and application of insecticides, manure etc.	Jul/Aug	21	6371.40	0	6371.40
10	Cost of insecticide & fertiliser (a) NPK @ 50 gms / plant as basal dose = 80kg @ ₹24/- per kg = ₹1920.00 (b) Urea @ 70 gms / plant in two subsequent doses @ ₹6/- per kg = ₹ 672.00 (c) Granular insecticide (Themet, Forate etc) @ 5 gms / plant @ ₹ 80/- per kg = Rs.640/-	Jul/Aug	-	-	3232	3232.00
11	1st weeding(complete weeding )	Aug/Sep	7	2123.80	0	2123.80
12	Manuring urea 35 gm	Aug/Sep	5	1517.00	0	1517.00
13	2nd weeding(complete weeding )	Sep/Oct	5	1517.00	0	1517.00
14	Soil working ( 50 cms radius around plant) and manuring Urea 35 gms per plant	Sep/Oct	7	2123.80	0	2123.80
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	3034.00	0	3034.00
16	Fireline tracing & inspection path	Feb / Mar	3	910.20	0	910.20
17	Watch and ward	Aug-Mar	7	2123.80	0	2123.80
	<b>Total :-</b>		<b>124.5</b>	<b>37773.30</b>	<b>12385</b>	<b>50158.30</b>
18	Monitoring & Supervision charge 5% of the total cost.					<b>2507.92</b>
	<b>G.Total :-</b>		<b>124.5</b>	<b>37773.3</b>	<b>12385</b>	<b>52666.22</b>



SI No.	Item of works	Preferable period of Execution	Person days	Labour cost @303.40	Material cost (Rs.)	Total Cost (Rs.)
1	2	3	4	5	6	7
<b>2nd Year Maintenance</b>						
19	Casualty replacement (10%) with Nursery cost	Jul/Aug	4	1213.60	1988.80	3202.40
20	Weeding(complete weeding )	Sep/Oct	6	1820.40	0	1820.40
21	Cost of fertiliser (NPK @ 70 gms / plant) ( Rs. 24/- per kg & Insecticide @5gms / plant for 160 plants 800 gms @ Rs.80/- per kg)		-	-	2752	2752.00
22	Repair and maintenance of Bamboo fence including material cost	Sep/Oct	20	6,068.00	5080	11148.00
23	Soil working (50 cms. Radius around plants)	Oct/Nov	7	2123.80	0	2123.80
24	Application of fertilizer & insecticide	Sep/Oct	4	1213.60	0	1213.60
25	Fire line tracing(2m. wide fire line over 400 m L )	Feb / Mar	3	910.20	0	910.20
26	Watch and ward	Apr-Mar	15	4551.00	0	4551.00
	<b>Total :-</b>		<b>59</b>	<b>17900.60</b>	<b>9820.80</b>	<b>27721.40</b>
27	Monitoring & Supervision charge 5% of the total cost.					<b>1386.07</b>
	<b>G.Total :-</b>		<b>59</b>	<b>17900.6</b>	<b>9820.80</b>	<b>29107.47</b>
<b>3rd year Maintenance</b>						
28	Weeding and application fertiliser	Aug/Sep	7	2123.80	0	2123.80
29	cost of Fertiliser (NPK @ 50 gms / plant) @ ₹24/- per kg)		0	0.00	1920	1920.00
30	Repair and maintenance of Bamboo fence including material cost	Sep/Oct	20	6068.00	1000	7068.00
31	Soil working ( 50 cms radius around plant) & application of fertilizer	Oct/Nov	7	2123.80	0	2123.80
32	Fire line tracing(2m.Wide fire line over 400 mtr Long) & cultural operation	Feb / Mar	3	910.20	0	910.20
33	Watch and ward	Apr-Mar	15	4551.00	0	4551.00
	<b>Total :-</b>		<b>52</b>	<b>15776.80</b>	<b>2920</b>	<b>18696.80</b>
34	Monitoring & Supervision charge 5% of the total cost.					<b>934.84</b>
	<b>G.Total :-</b>		<b>52</b>	<b>15776.8</b>	<b>2920</b>	<b>19631.64</b>
<b>4th Year Maintenance</b>						
35	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	910.20	0	910.20
36	Watch and ward	Apr-Mar	15	4551.00	0	4551.00
	<b>Total :-</b>		<b>18</b>	<b>5461.20</b>	<b>0</b>	<b>5461.20</b>
37	Monitoring & Supervision charge 5% of the total cost.					<b>273.06</b>
	<b>G.Total :-</b>		<b>18</b>	<b>5461.2</b>	<b>0</b>	<b>5734.26</b>



SI No.	Item of works	Preferable period of Execution	Person days	Labour cost @303.40	Material cost (Rs.)	Total Cost (Rs.)
1	2	3	4	5	6	7
<b>5th Year Maintenance</b>						
38	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	910.20	0	910.20
39	Watch and ward	Apr-Mar	15	4551.00	0	4551.00
	<b>Total :-</b>		<b>18</b>	<b>5461.20</b>	<b>0</b>	<b>5461.20</b>
40	Monitoring & Supervision charge 5% of the total cost.					<b>273.06</b>
	<b>G.Total :-</b>		<b>18</b>	<b>5461.2</b>	<b>0</b>	<b>5734.26</b>
<b>6th Year Maintenance</b>						
41	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	910.20	0	910.20
42	Watch and ward	Apr-Mar	15	4551.00	0	4551.00
	<b>Total :-</b>		<b>18</b>	<b>5461.20</b>	<b>0</b>	<b>5461.20</b>
43	Monitoring & Supervision charge 5% of the total cost.					<b>273.06</b>
	<b>G.Total :-</b>		<b>18</b>	<b>5461.2</b>	<b>0</b>	<b>5734.26</b>
<b>7th Year Maintenance</b>						
44	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	910.20	0	910.20
45	Watch and ward	Apr-Mar	15	4551.00	0	4551.00
	<b>Total :-</b>		<b>18</b>	<b>5461.20</b>	<b>0</b>	<b>5461.20</b>
46	Monitoring & Supervision charge 5% of the total cost.					<b>273.06</b>
	<b>G.Total :-</b>		<b>18</b>	<b>5461.2</b>	<b>0</b>	<b>5734.26</b>
<b>8th Year Maintenance</b>						
47	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	910.20	0	910.20
48	Watch and ward	Apr-Mar	15	4551.00	0	4551.00
	<b>Total :-</b>		<b>18</b>	<b>5461.20</b>	<b>0</b>	<b>5461.20</b>
49	Monitoring & Supervision charge 5% of the total cost.					<b>273.06</b>
	<b>G.Total :-</b>		<b>18</b>	<b>5461.2</b>	<b>0</b>	<b>5734.26</b>
<b>9th Year Maintenance</b>						
50	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	910.20	0	910.20
51	Watch and ward	Apr-Mar	15	4551.00	0	4551.00
	<b>Total :-</b>		<b>18</b>	<b>5461.20</b>	<b>0</b>	<b>5461.20</b>
52	Monitoring & Supervision charge 5% of the total cost.					<b>273.06</b>
	<b>G.Total :-</b>		<b>18</b>	<b>5461.2</b>	<b>0</b>	<b>5734.26</b>



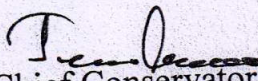
**Revised Financial Outlay for Compensatory Afforestation Scheme over 5.564 ha of Govt. non-forest land identified in village San-Baurkela under Bonai Range in Bonai Forest Division against the Iron and Manganese Mining Project of M/s S.A. Halim.**

**(Wage Rate @ Rs.308/- per MD)**

Sl. No.	Description	Amount (Rs.)
1.	Cost of Block Plantation @ 1600 plants per ha over 5.564 ha @ Rs.1,38,295.92 per ha with 10 years maintenance without provision of fencing	7,69,478.00
2.	Soil Conservation Measures:	
	(i) L.B.C.D. Structure of size 1 mt span for 7 nos. LBCD @ Rs.3697.56/LBCD	25,883.00
	(ii) L.B.C.D. Structure of size 2 mt span for 4 nos. LBCD @ Rs.7571.95/LBCD	30,288.00
	(iii) L.B.C.D. Structure of size 3 mt span for 6 nos. LBCD @ Rs.16255.62/LBCD	97,534.00
	<b>Total</b>	<b>9,23,183.00</b>
3.	Cost of Barbed wire fencing over 1.5 Km with 3 years maintenance @ 2% of cost per RKM @ Rs.6,85,960/- per RKM	10,28,940.00
4.	15% of the total plantation cost towards Entry Point Activity/ Incentive to VSS etc.	1,38,477.00
	<b>Total</b>	<b>20,90,600.00</b>
5.	Add Escalation Cost (20%)	4,18,120.00
	<b>Grand Total</b>	<b>25,08,720.00</b> <b>Or rounded off to</b> <b>25,08,800.00</b>

**(Rupees Twenty five lakhs eight thousand eight hundred) only**

Technically Approved

  
Principal Chief Conservator of Forests  
Forest Diversion & Nodal Officer, FC Act  
24/11/20

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



SI No.	Item of works	Preferable period of Execution	Person days	Labour cost @303.40	Material cost (Rs.)	Total Cost (Rs.)
1	2	3	4	5	6	7
<b>10th Year Maintenance</b>						
53	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	910.20	0	910.20
54	Watch and ward	Apr-Mar	15	4551.00	0	4551.00
	<b>Total :-</b>		<b>18</b>	<b>5461.20</b>	<b>0</b>	<b>5461.20</b>
55	Monitoring & Supervision charge 5% of the total cost.					<b>273.06</b>
	<b>G.Total :-</b>		<b>18</b>	<b>5461.2</b>	<b>0</b>	<b>5734.26</b>
	<b>G.total</b>		<b>461.50</b>	<b>140019.10</b>	<b>28064.80</b>	<b>176488.10</b>
<b>ABSTRACT</b>						
Year	No. person days	Labour cost @303.40 per day	Material cost (Rs.)	Monitoring & Supervision charge 5% of the total cost.	Total cost Rs.	
0th year	100.00	30340.00	2939.00	1663.95	34942.95	
1st year	124.50	37773.30	12385.00	2507.92	52666.22	
2nd year	59.00	17900.60	9820.80	1386.07	29107.47	
3rd year	52.00	15776.80	2920.00	934.84	19631.64	
4th year	18.00	5461.20	-	273.06	5734.26	
5th year	18.00	5461.20	-	273.06	5734.26	
6th year	18.00	5461.20	-	273.06	5734.26	
7th year	18.00	5461.20	-	273.06	5734.26	
8th year	18.00	5461.20	-	273.06	5734.26	
9th year	18.00	5461.20	-	273.06	5734.26	
10th year	18.00	5461.20	-	273.06	5734.26	
<b>Total</b>	<b>461.5</b>	<b>140019.10</b>	<b>28064.80</b>	<b>8404.20</b>	<b>176488.10</b>	
						Or,
						<b>176488.00</b>

  
 Divisional Forest Officer,  
 Bonai Division.



Detail Estimate of Loose Boulder Structure (S.M.C.)

Wage rate@ Rs.303.40

Span - 1 mtr.

Ht. = 0.6 mtr  
Slope - U/S:-1:1.5  
D/S Slope:-1:2

- 1 Leaving the unshape surface of the selected site & layout the structure foundation L.S. 1 MD. Rs. 303.40  
Excavation of foundation in hard soil within initial lead of 50 mtr. Including rough dressing and breaking of clods to maximum size 5 cm. to 7 cm. laying in layer not exceeding 0.3 in depth to strengthening both side U/S approx bun d of loose boulder structure.
- 2

Base with apron-1x3.60x1.60x0.30=	1.728			
Wing wall - 4x0.50x0.30x0.30=	0.180	1.908	Cum	
<b>@Rs.13592.29 per 100 cum.</b>			Rs.	<b>259.34</b>
3 Rough stone dry packing upto GL				
Base with apron-1x3.60x1.60x0.30=	1.728			
Wing wall - 4x0.50x0.30x0.30=	0.180	1.908	Cum	
Above GL				
Super structure - 1x1.00x2.60+0.50x0.60=	0.930			
-----2				
Wing wall - 4x0.50x0.30x0.30=	0.180			
Side wall				
i. 2 x 0.3+ 0.9 x 0.3=	0.324			
-----2				
ii 2 x 0.3+ 0.9 x 1.2 x 0.3=	0.432			
-----2				
iii 2 x 0.5 x 0.9 x 0.3 =	0.270			
iv 2 x 1.0 x 0.3 x 0.3 =	0.180	2.316	Cum	
		4.424	Cum	
<b>@Rs.1156.35 per cum</b>			Rs.	<b>5,115.69</b>
		<b>G.Total</b>		<b>5,678.43</b>
			Or	
			Rs.	<b>5,678.00</b>

(Rupees Five thousand six hundred Seventy Eight only)

  
 Divisional Forest Officer  
 Bonai Division



**Detail Estimate of Loose Boulder Structure (S.M.C.)**

Wage rate@ Rs.303.40

Span – 2 mtr.

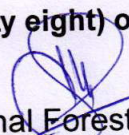
Ht. = 0.6 mtr

Slope- U/S :- 1:1.5

D/S slope :- 1:2

1.	Leveling the unshpe surface of the selected site & layout the structure foundation L.S. 1 MD.			303.40
2.	Excavation of foundation in hard soil within initial lead of 50 mtr. including rough dressing and breaking of clods to maximum size 5 cm. to 7 cm. laying in layer not exceeding 0.3 in depth to strengthening both side U/S approx. bund of loose boulder structure.			
	Base with apron- 1 x 3.70 x 3.00 x 0.30 =	3.33		
	Wing wall- 4 x 0.50 x 0.50 x 0.30 =	0.30	3.63cum	
	<b>@ Rs.13571.68 per 100 cum.</b>			492.65
3.	<b>Rough stone dry packing</b>			
	up to GL			
	Base with apron- 1 x 3.70 x 3.00 x 0.30 =	3.33		
	Wing wall- 4 x 0.50 x 0.50 x 0.30 =	0.30		
	Above GL			
	Super structure 1 x 2.00 x $\frac{2.70 + 0.60}{2}$ x 0.60 =	1.980		
	Wing wall- 4 x 0.50 x 0.50 x 0.50 =	0.50		
	Side wall-			
i.	2 x $\frac{0.50 + 1.10}{2}$ x 0.9 x 0.5 =	0.72		
ii.	2 x $\frac{0.5 + 1.10}{2}$ x 1.2 x 0.5 =	0.96		
iii.	2 x 0.6 x 0.6 x 0.5 =	0.36		
iv.	2 x 1.0 x 0.5 x 0.5 =	0.50		
			8.65 cum	
	<b>@ Rs.1156.24 per cum</b>			10001.47
				<b>10797.52</b>
				<b>Or</b>
			<b>G. Total:-</b>	<b>10798.00</b>

(Rupees Ten thousand seven hundred ninety eight) only

  
 Divisional Forest Officer,  
 Bonai Division.



**Detail Estimate of Loose Boulder Structure (S.M.C)**

Wage rate@ Rs.303.40

Ht. = 1.0 mtr

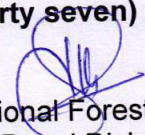
Slope- U/S :- 1:1.5

D/S slope :- 1:2.0

Span – 3 mtr.

1.	Leveling the unshaped surface of the selected site & layout the structure foundation L.S. 1 MD.			303.40
2.	Excavation of foundation in hard soil within initial lead of 50 mtr. including rough dressing and breaking of clods to maximum size 5 cm. to 7 cm. laying in layer not exceeding 0.3 in depth to strengthening both side U/S approx. bund of loose boulder structure.			
	Base with apron- 1 x 5.10 x 4.00 x 0.30 =	6.12		
	Wing wall- 4 x 0.50 x 0.50 x 0.30 =	0.30	6.42 cum	
	<b>@ Rs.13592.61 per 100 cum.</b>			872.64
3.	<b>Rough stone dry packing</b>			
	up to GL			
	Base with apron- 1 x 5.10 x 4.00 x 0.30 =	6.12		
	Wing wall- 4 x 0.50 x 0.50 x 0.30 =	0.30		
	Above GL			
	Super structure – 1 x <u>4.10 + 0.60</u> x 1.00 x 3.0 =	7.05		
	-----2			
	Wing wall- 4 x 0.50 x 0.50 x 0.50 =	0.50		
	Side wall-			
i.	2 x <u>0.50 + 1.50</u> x 1.5 x 0.5 =	1.50		
	-----2			
ii.	2 x <u>0.5 + 1.50</u> x 2.0 x 0.5 =	2.0		
	-----2			
iii.	2 x 0.6 x 1.0 x 0.5 =	0.60		
iv.	2 x 1.0 x 0.5 x 0.5 =	0.50		
			18.57 cum	
	<b>@ Rs.1156.24 per cum</b>			21471.37
			<b>G.Total:-</b>	<b>22647.41</b>
				<b>or,</b>
				<b>22647.00</b>

(Rupees Twenty two thousand six hundred forty seven) only

  
Divisional Forest Officer,  
Bonai Division.



**ESTIMATE FOR BARBED WIRE FENCING**

**ANNEXURE-37**

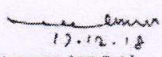
**ESTIMATE FOR BARBED WIRE FENCING**

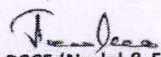
01).	02 ply barbed wire (5 Rmt per kg)		
	7 straight strand x 1000 Mt	=7000Mt	
	2 Diagonal strand = $2 \times \sqrt{(6.5')^2 + (8.2')^2} = 2 \times 10.50 \text{ ft}$		
	=21.00 ft x 400 nos=8400 ft or	=2560Mt	
		=9560Mt	
	Requirement of Barbed wire per Km		
	Cost per KM=9560/5=1912 Kg @ Rs.80/Kg		Rs.1,52,960.00
02).	Construction of RCC pillars of size- Length—8ft, Bottom width 6"x6", Top width-4"x4" Reinforced with 6mm rods with proper curing		
	$\left\{ \frac{8' \times 6''+4''}{2} \right\} \times \frac{6''+4''}{2} = 1.34 \text{ cft or } 0.038 \text{ cum}$		
	i) Cost of c.c. work 1:2:4=0.038 cum @5262.57/cum	= 199.98	
	ii) Cost of rod including cutting, bending & binding 0.038x0.9qtl=0.0342 qtl@ Rs. 10,595.80/qtl.	= 362.38	
	iv) Contingency (15%) including Curing, stacking, provision of hooks etc.	= 81.05	
		-----	
		Rs.643.41 or Rs. 644/-	
	<u>Requirement of pillars per KM-</u> Spacing=2.5mtx2.5mt		
	Requirement=1000mt/2.5mt	= 400	
	Strut pillar in every 10 <sup>th</sup> pillar=(400/10)x2	= 80	
		-----	
		480 Nos	
	Cost of pillars per Kilometer= 480@ 644/-		Rs.3,09,120.00
03).	Fitting fixing of RCC pillars in position with hbg metal (4cm) in C.M (1:4:8)		
	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. 12,040/100cum	= 5521.54	
	ii) Fixing of pillars with 4cm hbg metals in C.M 1:4:8 pit size-1.5'x1.5'x1.5'	=3.375 cft	
	Deduct 1/3 <sup>rd</sup> of butt of pillar i.e.3.375/3	=(-) 1.125 cft	
	Total c.c. work per pillar	-----	
		2.25cft	
	For 480 pillars=480x2.25=1080cft or 30.577 cum @ Rs. 3629.46/cum		Rs.1,10,978.00
04).	Labour for straightening the barbed wire and fixing & clipping with pillars 70M.d per km@280/-	=	Rs.19,600.00
05).	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
06).	Provision of one Iron Gate of size (4' x 5') on LS	=	Rs. 7,500.00
		Total	= Rs.6,23,680.00
		Labour Cess 1%	= Rs. 6,237.00
	Expenditure per 1 km of barbed wire fencing		Rs.6,29,917.00
	Or say, Rs.629.91/- or Rs.630/- per meter		




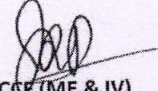
07). Expenditure towards maintenance for 3 years (3<sup>rd</sup>, 6<sup>th</sup> & 9<sup>th</sup> year)  
@ 2% of cost per rkm =  $3 \times 2\% \times \text{Rs.}6,29,917/-$  = Rs.37,795.00  
Expenditure per 1 km of barbed wire fencing including maintenance = Rs.6,67,712.00

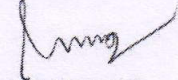
So, expenditure per running meter for fencing = Rs.667.71/Mtr. or say Rs.668/-Mtr.  
(Rupees Six hundred sixty eight) only


  
Addl. PCCF (FB&A)


  
Addl. PCCF (Nodal & FC)

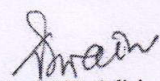
  
Addl. PCCF (PP&A)

  
Addl. PCCF (ME & IV)

  
CCF (CAMPA)

  
RCCF, Bhubaneswar

  
Dy. CF (Affn.)

  
Principal CCF, Odisha

@ 280.00 per MD = Rs.667.71 / Mtr.  
Now @ 303.40 per MD = Rs.723.51 (Or, say 724/- / Mtr.)

  
Divisional Forest Officer,  
Bonai Division.



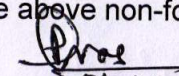
**JOINT VERIFICATION OF LAND SCHEDULE OVER 13.75 AC. (OR, 5.564 HA.) IN VILLAGE SAN-BAURNKELA, TEHSIL-BONAI, UNDER BONAI SUB-DIVISION OF SUNDARGARH DISTRICT FOR COMPENSATORY AFFORESTATION IN LIEU DIVERSION OF 5.888 HA. OF FOREST LAND IN ORAGHAT IRON & MANGANESE MINES OF M/S SAYED ABDUL HALIM IN BONAI FOREST DIVISION.**

Name of Village	Tehsil	Khata No.	Plot No.	Kisam	Area (in Ac.)	Boundary description			
						North	South	East	West
1	2	3	4	5	6	7	8	9	10
San-Baurnkela	Bonai	71	96/692/P	Patit	12.25	90,96/692, 674, 698, 89,91	96/692, Vill-Patrapali	99, 98, 89	96
			90	Patit	1.50				
<b>TOTAL</b>					<b>13.75 Ac. Or, 5.564 Ha.</b>				

1. Certified that the above non-forest Govt. land is free from encroachment and encumbrance
2. Certified that the above non-forest Govt. land is not covered under DLC report.
3. Certified that the above non-forest Govt. land is not allotted previously for any other project.

  
 Tehsildar,  
 Bonai Tehsil  
**Bonai**

1. Certified that the above non-forest Govt. land is in 1 patch of 5.564 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 @ 1600 plants per hectare.
3. Certified that the above non-forest Govt. land is not covered under DLC report.
4. Certified that the above non-forest Govt. land is not covered under any PRF.

  
 01.10.2020  
 Range Officer,  
 Bonai Range  
**Range Forest Officer  
Bonai Range**

**COUNTERSIGNED**

  
 Divisional Forest Officer  
 Bonai Division

ANNEXURE - 6





By E-mail

ବନଖଣ୍ଡ ଅଧୀକାରୀଙ୍କ କାର୍ଯ୍ୟାଳୟ: ବଣାଇ ବନଖଣ୍ଡ I  
OFFICE OF THE DIVISIONAL FOREST OFFICER: BONAI DIVISION.

Phone / Fax - 06626-244434: E-mail

At- dfobonai@rediffmail.com

No. 4486 /6F-(Mg.) Dt: 11.5 .2020

To

The Tehsildar,  
Bonai.

Sub:-

Proposal for diversion of 5.888 ha. of DLC forest land (including 0.562 ha. of Safety Zone area) in village Oraghat of Sundargarh District for Iron &amp; Mn. by M/s Sayed Abdul Halim under Bonai Forest Division.

Ref: -

1. Proposal No.FP/OR/MIN/15807/2015 dt.16.3.2017
2. Letter No.5-ORC412/2020-BHU dt.3.4.2020 of the MoEF & CC, ERO, Bhubaneswar.
3. Memo No.9379 dt.4.5.2020 of the PCCF (FD & NO, FC Act), Bhubaneswar.
4. Memo No.940 dt.5.5.2020 of the RCCF, Rourkela addressed to this office.

Sir,


With reference to above, I would like to inform you that an area of 13.17 Ac. (Or, 5.326 ha.) of non-forest Govt. land in village San-Baurmkela has identified by you vide your Memo No.1759 dt.9.6.2017 for the purpose of Compensatory Afforestation in lieu of above said diversion proposal applied by M/s S.A. Halim.

Further, the MoEF & CC, Eastern Regional Office, Bhubaneswar has intimated vide his Letter No.5-ORC412/2020-BHU dt.3.4.2020 that on scrutiny of KML file of C.A. land in Google Earth, it is observed that some portion of CA land have agricultural plots/cultivated land.

Hence, you are requested to kindly submit necessary clarification in the above said observation immediately for taking further action at this end.


This is for your information and necessary action.

Yours faithfully,

  
Divisional Forest Officer,  
Bonai Division.


Memo No. 4487 /6F-Dt: 11.5 .2020

Copy forwarded to the Principal Chief Conservator of Forests, Forest Diversion & Nodal Officer, F.C. Act' O/O the P.C.C.F., Odisha Bhubaneswar for favour of kind information and necessary action with reference to his Memo No.9380 dt.4.5.2020.

  
Divisional Forest Officer,  
Bonai Division.


Memo No. 4488 /6F-Dt: 11.5 .2020

Copy forwarded to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action with reference to his Memo No.940 dt.5.5.2020.

  
Divisional Forest Officer,  
Bonai Division.

Memo No. 4489 /6F-Dt: 11.5 .2020

Copy forwarded to the Collector, Sundargarh for favour of kind information and necessary action.

  
Divisional Forest Officer,  
Bonai Division.

Memo No. 4490 /6F-Dt: 11.5 .2020

Copy forwarded to M/s S.A Halim, Plot No.90, First Floor, Satyanagar, Near Satyanagar SBI, Bhubaneswar-751007 for information and necessary action with reference to Memo No.9381 dt.4.5.2020 of the PCCF (FD & NO, FC Act), Bhubaneswar.

  
Divisional Forest Officer,  
Bonai Division.





ANNEXURE - 3

ଡହସିଲଦାର କ କାର୍ଯ୍ୟାଳୟ: ବଣାଇ

Ph. /Fax- 06626-244423, E-mail: [tdr.bng123@gmail.com](mailto:tdr.bng123@gmail.com)

ପତ୍ର ସଂଖ୍ୟା. 1475 ତାରିଖ 08.07.2020

To

The Divisional Forest Officer,  
Bonai Division.

Sub:-

Submission of report regarding proposal for diversion of 5.888 ha. Of DLC forest land (including 0.562 ha. of safety zone area) in village Oraghat of Sundargarh District of Iron & Mn. By M/s Sayed Abdul Halim under Bonai Forest Division.

Ref:-

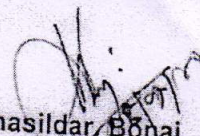
Your office Letter No- 4486/6F- (Mg) Dt. 11.05.2020

Sir,

With reference to the letter on the subject cited above, I am to say that the Revenue Inspector, Kenaveta has submitted the field inquiry report from which it is revealed that the land scheduled identified before for the aforesaid purpose is free from encroachment, free from Sairat source and also there is no any forest growth exist over the said plot.

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

Yours faithfully,

  
Tahasildar, Bonai

Memo. No. \_\_\_\_\_ / Dt. \_\_\_\_\_  
Copy submitted to the Collector, Sundargarh for favour of kind information.

Sd/  
Tahasildar Bonai



ACS/SS (CO)