

SCHEME FOR COMPENSATORY AFFORESTATION FOR DIVERSION OF FOREST LAND FOR CONSTRUCTION OF AIR STRIP AT MALKANGIRI OF MALKANGIRI DISTRICT.

Introduction:-

This scheme is prepared for compensatory Afforestation in Govt. land in view of diversion of forest by R&B Division, Malkangiri as required under section 3 of forest (Conservation) act -1980. R&B Division, Malkangiri is working under the Works Department, Government of Odisha for proposed construction of Air Strip in Left Wing Extremism affected District. The Air Strip is proposed over a total area of 94.254 Ha. out of which 13.233 Ha. area is under Revenue Forest (Jungle Kissam) category, which is scattered over of 53 nos. of Forest Patches. However, the R&B Division, Malkangiri has agreed to provide fund for raising of compensatory plantation over 13.350 Ha. having Parbat Kissam (Revenue Land) in lieu of 13.233 Ha. Forest Land of Malkangiri Division.

1. DETAILS OF LAND FOR COMPENSATORY AFFORESTATION

District- Malkangiri
Village- Phulagandhi
Tahasil- Chitrakonda

The Revenue land for compensatory has been identified in Phulagandhi village over 13.350 Ha. under Chitrakonda Tahasil of Malkangiri District. The Tahasildar, Chitrakonda vide Letter No. 1444/REV-XX-03/21 dated 14.09.2021 reported that the proposed area is free from encroachment and encumbrances and suitable for plantation from management point of view is outlined as below.

Land schedule of land prepared for Compensatory Afforestation.

Tahasil	Village/Mouza	Khata No.	Plot No.	Area in Ha.	Kissam
Chitrakonda	Phulagandhi	30 (A.A.A)	1	8.350	Parbat
			5	5.000	Parbat

2. Description of Area:-

i. Whether the site selected for compensatory Afforestation is a land bank or not:

This identified Revenue Land and is under the control of revenue department and classified as "Parbat" And it is not a land bank.

ii. If the CA Site is other than the land bank, reasons be given:-

There is no alternate suitable land is available. Therefore the Revenue Land area has been selected for CA.

iii. In case of non-forest area identified for CA , then what is the distance of CA site from the adjoining forest boundary:-

The CA site is at a distance of 200 meter from Phulagandhi village and 200 Meter away from Datunguda PRF.

iv. Soil type:- Morrum Soil

v. Topography:- The topography configuration of the identified site is small hilly.

vi. Slope:- Gentle to moderate slope.

vii. Whether the area is bearing any root stock of vegetation: - No

viii. Temperature:- This area experiences cold weather between November to January when the temperature drops less than 12° C . The summer is very severe in Malkangiri and sometimes the temperature rises from February onwards reaching 42° C to 45° C in summer.


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ix. Climate and Rainfall:- The area has a tropical to sub-tropical climate with monsoon rains from 2nd week June to September and occasional rains during winter. This area also occasional gusty wind to heavy thunderstorms during summer seasons (April to June). The rainfall is about 1410.00 mm.

3. Plantation Model:- The identified site is Phulagandhi village over 13.350 Ha. has poor soil depth with gentle slope. It is proposed for taking of block plantation @ 1600 plants/Ha.

4. Schedule of Plantation programme:-

Details of year wise break up of requirements of funds as under:

Year	Area in Ha	Rate / Ha	Total Amount
Previous Year (Adv Work)	13.350 Ha.	17482.08	233385.77
0 th year	-do-	62842.08	838941.77
1 st year	-do-	32764.20	437402.07
2 nd year	-do-	21478.17	286733.57
3 rd year	-do-	12465.60	166415.76
4 th year	-do-	5877.90	78469.97
5 th year	-do-	5877.90	78469.97
6 th year	-do-	5877.90	78469.97
7 th year	-do-	5877.90	78469.97
8 th year	-do-	5877.90	78469.97
9 th year	-do-	5877.90	78469.97
10 th year	-do-	5877.90	78469.97
Total	13.350 Ha.	188177.43	2512168.69 Or Say 2512170.00
Cost of Vegetative fencing around periphery of the identified degraded forest land of 13.350 Ha., around identified CA land in Phulagandhi (Revenue Land) @ 1000 mtr. Per Ha. @ Rs. 136.00 (1000 Mtr X 136.00 Per Mtr= 136000.00)			136000.00
Total			2648170.00
Maintenance of fencing on 2nd, 3rd & 4th year (2% of cost per each year)			8160
Total			2656330.00
Cost of Cattle Proof Trench of 2Mtr+1Mtr/2X1.5 MtrX1Mtr=2.25 Cum @ 130.62/- per Cum= 2.25 Cum X 1500 MtrX130.62=440843.00			440843.00
Total			3097173.00
15% of total Plantation cost towards EPA/Incentive to VSS			464576.00
Total			3561749.00
Add Escalation Cost (20%)			712350.00
Total			4274099.00
G. Total			4274099.00

5. Technical Details:-

Objective of the scheme:-

i) The main objective of the scheme is to take up the Block Plantation in Revenue land and every possible effort shall be made to successful establishment of plantation.

ii) Creation of asset for the community meets their bonafide requirements and also generate employment to improve the socio-economic status during the implementation of the scheme.

a) General Details:-


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i) **Survey and demarcation of boundary:-** The identified area is to be surveyed and GPS co-ordinate of each pillar will be taken. Survey and posting of R.C.C pillars will be done by User Agency.

ii) **Spacement:-** The spacement adopted for plantation is 2.5 mtr x 2.5 mtr .

iii) **Species:-** Although indigenous species are to be preferred in the plantation, considering adverse soil and moisture conditions the following species are to be planted.

Sl. No.	Common name	Scientific name	Remarks
1	Teak	Tectona grandis	Potted seedling from pre-sprouted stumps will be planted
2	Khair	Acacia catechu	-
3	Bamboo	Dendracatamus strictus	In lower areas with good soil depth
4	Babool	Acacia arabica	In lower areas with good soil depth
5	Jamun	Syzygium cumini	
6	Mahua	Madhuca latifoila	
7	Bija	Pterocarpus marsupium	
8	Karanja	Pongamia glabra	

iv) **Method of raising plantation:-** Block plantation over 13.350 Ha shall be taken up with 1600 plants per Ha at a spacing of 2.5 mtr x 2.5 mtr. The standard size of pit 45 cm x 45 cm x 45 cm shall be dug in the entire area. The planting of polypot seedlings will be taken up after onset of monsoon. At the time of planting, insecticides and fertilizers shall be applied as a basal doze depending on the requirement.

Post planting operations shall be including causality replacement, weeding, soil working and other operations to be carried out as per calendar of operations.

v) **Soil and moisture conservation works:-** Half-moon trenches should be constructed on down side of the plants. In the slopes staggered trenches of 2.5m x 0.5m x 0.5m should be dug in between the planting line along the contours. On the other hand Gully plugging, check dams and percolation pits to be constructed as per site specification.

vi) **Protection:-** Protection should be done by way of watch and ward and people's participation.

6. **Proposed monitoring mechanism:-** The scheme shall be executed by the department staffs through regular inspection and checking. All prescribed records are to be maintained by the department staffs.

7. **Any other information:-** Work to be carried out as per the technical advice of the concerned forestry experts such as D.F.O, ACF and Range Officer concerned .

8. **Total cost of the project:-** The total cost of the project will be Rs. 42, 74, 099.00 (Rupees Forty two lakh seventy four thousand ninety nine) only, which shall be payable by the User Agency as per the advice of Divisional Forest Officer.


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Malkangiri Forest Division.


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**COST NORM FOR BLOCK PLANTATION FOR COMPENSATORY AFFORESTATION AT PHULAGANDHI OF
CHITRAKONDA C.D. BLOCK, DIST:MALKANGIRI**

Spacing: 2.5 Mtr x 2.5 Mtr

No. of Plants to be Planted: 1600 Plants/Ha.

Wage rate: @311/-Per MD

Previous Year (Advance Work) Nursery Raising

Sl. No	Item of Work	Preferable Period of execution	Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
1	Nursery cost (18 Month's old seedlings) @37.97/seedling Part (Rs. 9.46 to be released) for 1760 seedlings (1600+160)	Nov-Mar	44	13684.00	2965.60	16649.60	
	Total		44	13684.00	2965.60	16649.60	
2	Monitoring & Supervision charge 5% of the total cost					832.48	
	G. Total		44	13684.00	2965.60	17482.08	

"0" the Year

Sl. No	Item of Work	Preferable Period of execution	Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
1	Survey, Demarcation & Pillar posting	Nov/Dec	2	622.00	0.00	622.00	
2	Site Preparation	Nov/Dec	12	3732.00	0.00	3732.00	
3	Alignment & Stacking of pits	Jan/Feb	2	622.00	0.00	622.00	
4	Digging up pits (30 cm cube)	Feb/Mar	40	12440.00	0.00	12440.00	
5	Nursery cost (18 Month's old seedlings) @37.97/seedling Part (Rs. 24.11 to be released) for 1760 seedlings (1600+160)	Jan-Mar	111.67	34729.37	7704.23	42433.60	
	Total		167.67	52145.37	7704.23	59849.60	
6	Monitoring & Supervision charge 5% of the total cost					2992.48	
	G. Total		167.67	52145.37	7704.23	62842.08	

1st Year (Creation)

	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	
7	Nursery cost (18 Month's old seedlings) @37.97/seedling Part (Rs. 4.40 to be released) for 1760 seedlings (1600+160)	Apl-Jul	22	6842.00	915.00	7757.00	
8	Carriage & Planting	Jul/Aug	21	6531.00	0.00	6531.00	
9	Cost of insecticides and Fertilizer		0	0.00	3232.00	3232.00	
10	1st Weeding (Complete weeding)	Aug/Sept	7	2177.00	0.00	2177.00	
11	Manuring	Aug/Sept	5	1555.00	0.00	1555.00	
12	2nd Weeding (Complete weeding)	Sept/Oct	5	1555.00	0.00	1555.00	
13	Soli working (50cm radius around plants)	Sept/Oct	7	2177.00	0.00	2177.00	
14	Soil conservation measure (SMC)	Sept/Oct	10	3110.00	0.00	3110.00	
15	Fire line and inspection path (2Mtr wide fire line over 400 Mtr long)	Feb/Mar	3	933.00	0.00	933.00	
16	Watch & Ward for 8 month (August to March)	Aug-Mar	7	2177.00	0.00	2177.00	
	Total		87	27057.00	4147.00	31204.00	

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17	Monitoring & Supervision charge 5% of the total cost					1560.20	
	G. Total		87	27057.00	4147.00	32764.20	

2nd Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
18	Casualty Replacement with Nursery Cost	Jul/Aug	4	1244.00	5574.40	6818.40	
19	Weeding (Complete Weeding)	Sept/Oct	6	1866.00	0.00	1866.00	
20	Application of fertilizer	Sept/Oct	4	1244.00	0.00	1244.00	
21	Cost of fertilizer		LS	0.00	2752.00	2752.00	
22	Soil working (50cm Radius around plant)	Oct/Nov	7	2177.00	0.00	2177.00	
23	Fire line tracing (2 mtr wide fire line over 400 mtr long)	Feb/Mar	3	933.00	0.00	933.00	
24	Watch & Ward (12 months)	Apr-Mar	15	4665.00		4665.00	
	Total		39	12129.00	8326.40	20455.40	
25	Monitoring & Supervision charge 5% of the total cost					1022.77	
	G. Total		39	12129.00	8326.40	21478.17	

3rd Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
26	Weeding and Application of fertilizer	Aug/Sept	7	2177.00	0.00	2177.00	
27	Cost of fertilizer		0	0.00	1920.00	1920.00	
28	Soil working (50cm Radius around plant)	Oct/Nov	7	2177.00	0.00	2177.00	
29	Fire line tracing (2mtr wide fire line over 400 mtr long)	Feb/Mar	3	933.00	0.00	933.00	
30	Watch & Ward (12 months)	Apr-Mar	15	4665.00	0.00	4665.00	
	Total		32	9952.00	1920.00	11872.00	
31	Monitoring & Supervision charge 5% of the total cost					593.60	
	G. Total		32	9952.00	1920.00	12465.60	

4th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
32	Fire line tracing (2mtr wide fire line over 400 mtr long)	Feb/Mar	3	933.00	0.00	933.00	
33	Watch & Ward (12 months)	Apr-Mar	15	4665.00	0.00	4665.00	
	Total		18	5598.00	0.00	5598.00	
34	Monitoring & Supervision charge 5% of the total cost					279.90	
	G. Total		18	5598.00	0.00	5877.90	

5th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
35	Fire line tracing (2mtr wide fire line over 400 mtr long)	Feb/Mar	3	933.00	0.00	933.00	
36	Watch & Ward (12 months)	Apr-Mar	15	4665.00		4665.00	
	Total		18	5598.00	0.00	5598.00	
37	Monitoring & Supervision charge 5% of the total cost					279.90	
	G. Total		18	5598.00	0.00	5877.90	


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6th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
38	Fire line tracing (2mtr wide fire line over 400 mtr long)	Feb/Mar	3	933.00	0.00	933.00	
39	Watch & Ward (12 months)	Apr-Mar	15	4665.00		4665.00	
	Total		18	5598.00	0.00	5598.00	
40	Monitoring & Supervision charge 5% of the total cost					279.90	
	G. Total		18	5598.00	0.00	5877.90	

7th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
41	Fire line tracing (2mtr wide fire line over 400 mtr long)	Feb/Mar	3	933.00	0.00	933.00	
42	Watch & Ward (12 months)	Apr-Mar	15	4665.00		4665.00	
	Total		18	5598.00	0.00	5598.00	
43	Monitoring & Supervision charge 5% of the total cost					279.90	
	G. Total		18	5598.00	0.00	5877.90	

8th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
44	Fire line tracing (2mtr wide fire line over 400 mtr long)	Feb/Mar	3	933.00	0.00	933.00	
45	Watch & Ward (12 months)	Apr-Mar	15	4665.00		4665.00	
	Total		18	5598.00	0.00	5598.00	
46	Monitoring & Supervision charge 5% of the total cost					279.90	
	G. Total		18	5598.00	0.00	5877.90	

9th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
47	Fire line tracing (2mtr wide fire line over 400 mtr long)	Feb/Mar	3	933.00	0.00	933.00	
48	Watch & Ward (12 months)	Apr-Mar	15	4665.00		4665.00	
	Total		18	5598.00	0.00	5598.00	
49	Monitoring & Supervision charge 5% of the total cost					279.90	
	G. Total		18	5598.00	0.00	5877.90	

10th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
50	Fire line tracing (2mtr wide fire line over 400 mtr long)	Feb/Mar	3	933.00	0.00	933.00	
51	Watch & Ward (12 months)	Apr-Mar	15	4665.00		4665.00	
	Total		18	5598.00	0.00	5598.00	
52	Monitoring & Supervision charge 5% of the total cost					279.90	
	G. Total		18	5598.00	0.00	5877.90	

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A B S T R A C T

Sl. No.	Name of the Project	Area to be afforested	Year of plantation	Cost norm per Ha (Rs.)	Cost for 13.350 Ha.
1	2	3	4	5	6
1	DIVERSION OF FOREST LAND FOR CONSTRUCTION OF AIR STRIP AT MALKANGIRI IN MALKANGIRI DISTRICT.	13.350 Ha.	Previous Year (Adv work)	17482.08	233385.77
2			"0"th Year(Adv.)	62842.08	838941.77
3			1st Year	32764.20	437402.07
4			2nd year	21478.17	286733.57
5			3rd Year	12465.60	166415.76
6			4th Year	5877.90	78469.97
7			5th Year	5877.90	78469.97
8			6th Year	5877.90	78469.97
9			7th year	5877.90	78469.97
10			8th year	5877.90	78469.97
11			9th year	5877.90	78469.97
12			10th year	5877.90	78469.97
	Total			188177.43	2512168.69
				Or say	2512170.00
13	Cost of Vegetative fencing around periphery of the identified degraded forest land of 13.350 Ha., around identified CA land in Phulagandhi (Revenue Land) @ 1000 mtr. Per Ha. @ Rs. 136.00 (1000 Mtr X 136.00 Per Mtr= 136000.00)				136000.00
	Total				2648170.00
14	Maintenance of fencing on 2nd, 3rd & 4th year (2% of cost per each year)				8160.00
	Total				2656330.00
15	Cattle Proof Trench				
	Cost of Cattle Proof Trench of 2Mtr+1Mtr/2X1.5 MtrX1Mtr=2.25 Cum @ 130.62/- per Cum= 2.25 Cum X 1500 MtrX130.62=440843.00				440843.00
	Total				3097173.00
16	15% of total Plantation cost towards EPA/Incentive to VSS				464576.00
	Total				3561749.00
17	Add Escalation Cost (20%)				712350.00
	Total				4274099.00
	Grand Total				4274099.00

(Rupees Forty two lakh seventy four thousand ninety nine) only


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