

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.

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 Rekhapalli village over 10.785 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
0 th year	10.875Ha	22139.00	238769.00
1 st year	-do-	21125.00	227833.00
2 nd year	-do-	12064.00	130110.00
3 rd year	-do-	8320.00	89731.00
4 th year	-do-	4600.00	49611.00
5 th year	-do-	3600.00	38826.00
6 th year	-do-	3600.00	38826.00
7 th year	-do-	3600.00	38826.00
8 th year	-do-	3600.00	38826.00
9 th year	-do-	3600.00	38826.00
10 th year	-do-	3600.00	38826.00
Total	10.875Ha	89848.00	969010.00
CC Pillars=680 Nos. for 1500Mtr@449.6/-Per Mtr			674400.00
Add Maintenance fencing 4th year			50000.00
Add Supervision charges for monitoring (Vehicle,fuel ,3nos Computer,etc)			435000.00
EPA (Digging up Ponds) local demanding			500000.00
Grand Total			2628410.00

5. **Technical Details:-**

Objective of the scheme:-

i) The main objective of the scheme is to take up the Block Plantation in Revenue Forest 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:-**

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	Neem	Azadirachta indica	-
3	Sissoo	Dalbergia sissoo	In lower areas with good soil depth
4	Gamhar	Gmelina arborea	In lower areas with good soil depth
5	Mango	Mangifera indica	-
6	Jafra	Bixa orellana	-

iv) **Method of raising plantation:-** Black plantation over 10.875Ha 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 30 cm x 30 cm x 30 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 2628410.00 (Rupees Twenty six lakhs twenty eight thousand four hundred ten) only, which shall be payable by the User Agency as per the advice of Divisional Forest Officer.


Divisional Forest Officer
Malkangiri Forest Division
Malkangiri

ESTIMATE FOR BARBED WIRE FENCE AROUND 10.785 HECTARES REVENUE FOREST GOVT. LAND IN REKHAPALLI OF MALKANGIRI DISTRICT FOR COMPENSATORY AFFORESTATION AGAINST DIVERSION OF FOREST LAND FOR WIDENING OF JEYPORE -KOTA- MALKANGIRI ROAD (NH-326) KHAIRPUT & MATHILI TAHASIL OF MALKANGIRI DISTRICT .

Total length of fence =1.5 Km (1500 Mtr.)

7 strands (5 straight + 2 cross strands) of 1 ply barbed wire on RCC posts fixed at 2.5 mtr intervals. Two fencing posts extra, used as status at each corner point

Number of fence posts required per kilometers 500 Nos.

Fence post size 2 mtr long; 10cm x10 cm top; 15 cm x 15 cm bottom

Minimum wage rate Rs. 200/- per day for unskilled labourer

Lead statement & Cost of materials

S.L	Item	Unit	Basic Price	Lead in Km	Transport charge	Royalty	Total price
1	4 cm hand broken granite metal	Cum	609.00	15 (Village track)	209.76	98.79	917.55
2	12 mm H.G hand broken chips	Cum	934.00	15 (Village track)	209.76	98.79	1242.55
3	Screened & washed sand	Cum	59.00	25 (Village track)	408.48	27.44	494.92
4	M.S Rod	Qunt.	4000.00	90	70.20	-	4070.20
5	Cement	Qunt.	700.00	90	70.20	-	770.20
6	Barbed wire	KG	69.00	90	0.70		69.70

Analysis of rate

S.L	Item	Quantity	Unit	Rate	Amount
1	Cement concrete (1:4:8) with 4cm HG metal				
	A . Materials				
	Hand broken granite stone 4cm size	0.96 cum	Cum	917.55	880.85
	Sand (Screened & Washed)	0.48 cum	Cum	494.92	237.56
	Cement	1.72 quintal	Quintal	770.20	1324.75
	B. Labour				
	Mason second class	0.18 no.	each	220.00	39.60
	Man mulia	1.8 nos.	each	200.00	360.00
	Women mulia	1.4 nos	each	200.00	280.00
	Man mulia for mixing stone, Sand and cement and getting water	1.70 no.	each	200.00	140.00
	c. Overhead charges 7.5% of (a+b)				244.71
	Total cost per cum				3507.47
2	C.C (1:2:4) in mm hand broken H.G chips including hoisting and laying per cum.				
	a. Materials				
	Hand broken granite chips 12 mm size	0.90 cum	Cum	1242.25	1118.30
	Sand (Screened & Washed)	0.45 cum	Cum	494.92	222.71
	Cement	3.23 quintal	Quintal	770.20	2487.74

	B. Labour				
	Mason second class	0.18no.	each	220.00	39.60
	Man mulia	1.8 nos	each	200.00	360.00
	Women mulia	1.4 nos	each	200.00	280.00
	Man mulia for mixing stone, Sand and cement and getting water	1.4 nos	each	200.00	140.00
	Mason Second Class	0.5 nos.	each	220.00	110.00
	c. Overhead charges 7.5% of (a+b)				356.88
	Total cost per cum				5115.23
3	Labour for M.S reinforcement for R.C.C work including cutting, bending and tying the grills and placing in position, including cost of binding wire (per 1 quintal)				
	Blacksmith (Special)	1	each	260.00	260.00
	Semiskilled mulia	1	each	220.00	220.00
	30% sundries, binding wires and T & P etc.				144.00
	Total charges per quintal =				624.00

Estimated cost per fence post of 2 mtr long, 15 cm x 15 cm bottom and 10 cm x 10 cm top in R.C.C (1:2:4) with 12 mm H.G chips

Work	Quantity	Rate	Unit	Amount
Cost of concrete 2.0 mtr x 0.01625 sq. mtr=	0.0325 cum	5115.23	Cum	166.25
Cost of 8 mm rod (4 x 2 mtr) + mm rod 0.6 mtr for rings	3.25 Kg	4070.20	Quinta	132.28
Labour for cutting, bending, binding & laying in position of rods including cost of binding wire	3.15 Kg	6.24	Kg	19.66
Cost of staples for holding barbed wire				20.00
2% T & P etc.				6.76
Total				3.4495 or say 345.00

Estimated cost for fixing each fence post with C.C 1:4:8 in 4 cm metal

Cost of concrete (45 cm x 45 cm x 45 cm) – 15 cm x 15 cm x 45 cm)	0.081 cum	3507.47 per cum	284.10
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ESTIMATE PER KILOMETER OF BARBED WIRE FENCE

Sl	Work	Amount
1	Cost of fence posts R.C.C (1:2:4) with 12 mm H.G chips 2 mtr long 15 cm x 15 cm bottom and 10 cm x 10 cm top 500 nos x Rs. 345 each	172500.00
2	Digging of pits for fixing of fence posts 500 pit x Rs. 20.00 each	10000.00
3	Fixing of fence posts with CC 1:4:8 with 4 cm H.G metal 500 nos x Rs. 284.10	142050.00
4	Cost of 2 Ply barbed wire 7 strands x 1000Mtr=7000 Mtr@8 Mtr per KG=875 KG @Rs. 69.70 per KG	60988.00
5	Labour for fixing barbed wire fencing and post by means of staples and staining hooks 7000 mtr @ Rs. 2.00 per mtr	14000.00
6	Average expenditure needed for extra lead for transporting RCC fence posts in hill slopes manually 0.5 mandays per pillar (0.5xRs. 200)x500 pillars	50000.00
	Total expenditure for 1 Km of barbed wire fence Rs. 449538.00 or say Rs. 449600.00	

Total estimate expenditure for 1.5 Km barbed wire fence with RCC pillars

= Rs. 449600.00 x 1.5K = Rs. 674400/-

**COST NORM FOR BLOCK PLANTATION (TEAK) FOR COMPENSATORY AFFORESTATION AT REKHAPALII OF
KUDUMULUGUMMA C.D. BLOCK, DIST:MALKANGIRI**

ing: 2.5 Mtr x 2.5 Mtr
of Plants to be Planted: 1600 Plants/Ha.
age rate: @200/-Per MD
0" the Year

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
1	Survey, Demarcation & Pillar posting	Nov/Dec	2 MD	400.00	0.00	400.00	
2	Site Preparation	Nov/Dec	8 MD	1600.00	0.00	1600.00	
3	Alignment & Stacking of pit	Jan/Feb	2 MD	400.00	0.00	400.00	
4	Digging up pits (30x30x30)cum	Feb/Mar	40MD	8000.00	0.00	8000.00	
5	Nursery cost (6 Month's old seedlings) @ Rs.6.67/seedlings.(part) for 1760no's	Jan -Mar	44MD	8800.00	2939.00	11739.00	
	Total		96 MD	19200.00	2939.00	22139.00	

1st Year (Creation)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
7	Nursery cost (Balance)@Rs.2.78/seedlings (six month oldseedlings) for 1760 no's	April-July	21.5MD	4300.00	593.00	4893.00	
8	Carriage & Planting , Casualty replacement and application of insecticides,manure etc.	July/August	21 MD	4200.00	0.00	4200.00	
9	Cost of insecticides and Fertilizer		0	0.00	3232.00	3232.00	
10	1st Weeding (Complete weeding)	Aug/Sept	7 MD	1400.00	0.00	1400.00	
11	Manuring	Aug/Sept	5 MD	1000.00	0.00	1000.00	
12	2nd Weeding (Complete weeding)	Sept/Oct	5 MD	1000.00	0.00	1000.00	
13	Soli working (50cm radius around plants)	Sept/Oct	7 MD	1400.00	0.00	1400.00	
14	Soil conservation measure (SMC)in form of staggered trench of size 2mx0.5mx0.5mx @30 no's per ha	Sept/Oct	10 MD	2000.00	0.00	2000.00	
15	Fire line and inspection path (2Mtr wide fire line over 400 Mtr long)	Feb/Mar	3 MD	600.00	0.00	600.00	
17	Watch & Ward for 8 month (August to March)@ 2600/- per Ha	Aug-Mar	7MD	1400.00	0.00	1400.00	
	Total		86.5MD	17300.00	3825.00	21125.00	

2nd Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
18	Casualty Replacement with Nursery Cost	jul/Aug	4MD	800.00	1512.00	2312.00	
19	Weeding (Complete Weeding)	Sept/Oct	6 MD	1200.00	0.00	1200.00	
20	Application of fertilizer and insecticides	Sept/Oct	4 MD	800.00	0.00	800.00	
21	Cost of fertilizer and insecticide		LS	0.00	2752.00	2752.00	
22	Soil working (50cm Radius around plant)	Oct/Nov	7 MD	1400.00	0.00	1400.00	
23	Fire line tracing (2 mtr wide fire line over 400 mtr long)	Feb/Mar	3 MD	600.00	0.00	600.00	
24	Watch & Ward (12 months)	April-Mar	15MD	3000.00		3000.00	
	Total		39MD	7800.00	4264.00	12064.00	

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 MD	1400.00	0.00	1400.00	
27	Cost of fertilizer		0	0.00	1920.00	1920.00	
28	Soli working (50cm Radius around plant)	Oct/Nov	7 MD	1400.00	0.00	1400.00	
29	Fire line tracing (2mtr wide fire line over 400 mtr long)	Feb/Mar	3 MD	600.00	0.00	600.00	
30	Watch & Ward (12 months)	April-Mar	15MD	3000.00		3000.00	
	Total		32MD	6400.00	1920.00	8320.00	

4th Year (Maintenance)

	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
	Pruning/Uprooting unwanted weeds growth		5 MD	1000.00	0.00	1000.00	
33	Fire line tracing (2mtr wide fire line over 400 mtr long)		3 MD	600.00	0.00	600.00	
34	Watch & Ward (12 months)		15MD	3000.00		3000.00	
	Total		23 MD	4600.00	0.00	4600.00	

5th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
37	Fire line tracing (2mtr wide fire line over 400 mtr long)		3 MD	600.00	0.00	600.00	
38	Watch & Ward (12 months)		15MD	3000.00		3000.00	
	Total		18MD	3600.00	0.00	3600.00	

6th 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)		3 MD	600.00	0.00	600.00	
42	Watch & Ward (12 months)		15MD	3000.00		3000.00	
	Total		18MD	3600.00	0.00	3600.00	

7th 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)		3 MD	600.00	0.00	600.00	
45	Watch & Ward (12 months)		15MD	3000.00		3000.00	
	Total		18MD	3600.00	0.00	3600.00	

8th 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)		3 MD	600.00	0.00	600.00	
	Watch & Ward (12 months)		15MD	3000.00		3000.00	
	Total		18MD	3600.00	0.00	3600.00	

9th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
	Fire line tracing (2mtr wide fire line over 400 mtr long)		3 MD	600.00	0.00	600.00	
49	Watch & Ward (12 months)		15MD	3000.00		3000.00	
	Total		18MD	3600.00	0.00	3600.00	


10th Year (Maintenance)

Sl. No	Item of Work		Mandays	Amount	Material Cost (Rs)	Total(Rs)	Remarks
51	Fire line tracing (2mtr wide fire line over 400 mtr long)		3 MD	600.00	0.00	600.00	
	Watch & Ward (12 months)		15MD	3000.00		3000.00	
	Total		18MD	3600.00	0.00	3600.00	


 Divisional Forest Officer
 Markangiri Forest Division
 Markangiri Forest Division
 Markangiri

ABSTRACT

Sl. No.	Name of the Project	Area to be afforested	Year of plantation	Cost norm per Ha. (Rs)	Amount required(Rs) for 18.5 Ha.
1	2	3	4	5	6
1	Widening to two lane carriage way from 327/700 to 413/700 KM of N.H.-326 (erstwhile from 16/0 to 102/00 Km of S.H.-25) under Vijayawada - Ranchi corridor with Koraput and Malkangiri District in the state of Odish.	10.785 Ha.	"0"th Year(Adv.)	22139.00	238769.00
2			1st Year	21125.00	227833.00
3			2nd year	12064.00	130110.00
4			3rd Year	8320.00	89731.00
5			4th Year	4600.00	49611.00
6			5th Year	3600.00	38826.00
7			6th	3600.00	38826.00
8			7th year	3600.00	38826.00
9			8th year	3600.00	38826.00
10			9th year	3600.00	38826.00
11			10th year	3600.00	38826.00
	Total			89848.00	969010.00
12	CC Pillars=750Nos. for 1500Mtr@449.6/-Per Mtr				674400.00
13	Add Maintenance fencing 4th year				50000.00
14	Add Supervision charges for monitoring (Vehicle,fuel ,3nos Computer,etc)				435000.00
15	EPA (Digging up Ponds) local demanding				500000.00
	Grand Total				2628410.00


 Divisional Forest Officer
 Malkangiri Forest Division
 Malkangiri

**SCHEME FOR COMPENSATORY AFFORESTATION FOR DIVERSION OF FOREST LAND
FOR WIDENING OF JEYPURE -KOTA- MALKANGIRI ROAD (NH-326) KHAIRPUT &
MATHILI TAHASIL OF MALKANGIRI DISTRICT.**

Introduction:-

This scheme is prepared for compensatory Afforestation in Revenue Forest land in view of diversion of forest by National Highway Division, Jeypore as required under section 3 of forest (Conversation) act -1980. National Highway Division, Jeypore is Working under the Works Department , Government Odisha for proposed widening to two lane carriage way from 327/700 to 413/700 of N.H.-326 (erstwhile from 16/0 to 102/00 of SH-25) under Vijayawada-Ranchi corridor with Koraput and Malkangiri District in the state of Odisha on EPC basis in Leftwing Extremism District. The widening of road N. H.-326 is proposed over 7.743 Ha. Reserve Forest Land which is scatted over of 5nos. of Forest Patches. However the, N.H. Division, Jeypore has agreed of provide fund for raising of compensatory plantation over 10.785 Ha. having Kissam Revenue Forest in lieu of 7.743 Ha Forest Land of Malkangiri Division and 2.892 ha of Jeypore Division.

1. DETAILS OF NON-FOREST LAND

District-Malkangiri
Village- Rekhapalli
Tahasil- Chitrakonda

The Revenue Forest land for compensatory has been identified in Rekhapalli village over 10.785 Ha under Chitrakonda Tahasil of Malkangiri District. The Tahasildar, Chitrakonda vide Letter No-343/2017 dt 04.03.2017 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	Khata No.	Plot No.	Area in Ha.	Kissam
Chitrakonda	Rekhapalli	88	645	25.440	10.785

2. Description of Area:-

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

This identified Revenue Forest and is under the control of revenue department and classified as "Gramya Jungle" 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 Forest 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 Rekhapalli village and 0.5 km away from Banaguru RF.

iv. Soil type:- Alluvial (Morrum Soil)

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

vi. Slope:- Gentle to moderate slope.