



OFFICE OF THE DIVISIONAL FOREST OFFICER
BOUDH FOREST DIVISION BOUDH

Telephone/ Fax- 06841-222073 e-Mail: boudhdfn@gmail.com

Letter No. 867 /4F-125/2022 Dt. 17 / 02 / 2022

To

The Dy. Chief Engineer, (Con)
East Coast Railway, Boudh

Sub: Diversion of 13.22 Ha. of forest land under Boudh Forest Division for construction of Khurda Road-Bolangir New BG Rail Link Project between Km. 180-238

Ref: Memo no. 1065 dt. 18.01.2022 of Conservator of Forests, (Nodal) O/o the Pr.C.C.F, Odisha, Bhubaneswar and memo no. 595 dt. 15.02.2022 of R.C.C.F, Berhampur Circle addressed to this office & memo no. 20750 dt. 04.12.2021 of Conservator of Forests, (Nodal) O/o the Pr.C.C.F, Odisha, Bhubaneswar addressed to you.

Sir,

With reference to the above cited memos on the captioned subject, it is to inform you that, as per instruction of the Conservator of Forests, (Nodal) O/o the Pr.C.C.F, Odisha, Bhubaneswar, Avenue Plantation Scheme for 116 RKM has been submitted to RC.C.F, Berhampur Circle and the same has been approved @ Rs. 315/- per MD amounting to Rs. 10,87,99,555/- vide his memo under reference.

Hence, you are requested to deposit the cost of Avenue Plantation an amount of Rs. 10,87,99,555/- through PARIVESH web portal in Site Specific CAMPA Account and intimate the deposit particulars to this office for taking further course of action at this end. A copy of the approved financial outlay is enclosed herewith for your information and necessary action.

Encl: As above

Yours Sincerely,

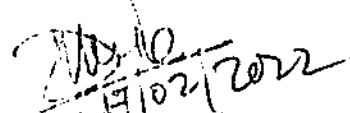
Self / Land / Con
Pl. Check the page-5
Compliance and process
for payment immediately.
[Signature]
19/02/2022

[Signature]
17/02/2022
Divisional Forest Officer
Boudh Division

Memo No. 868

Dt. 17 / 02 / 2022


Copy forwarded to the Conservator of Forests, (Nodal) O/o the Pr.C.C.F, Odisha, Bhubaneswar for favour of kind information and necessary action with reference to his memo no. 20749 dt. 04.12.2021.


Divisional Forest Officer
Boudh Division

Memo No. 869

Dt. 17 / 02 / 2022

Copy forwarded to the Regional Chief Conservator of Forests, Berhampur Circle for favour of kind information and necessary action with reference to his memo no. 595 dt. 15.02.2022.


Divisional Forest Officer
Boudh Division

SCHEME FOR
RAISING OF AVENUE PLANTATION OVER 116 RKM ON
EITHER SIDE OF ALIGNMENT OF THE TRACK
IN LIEU OF
DIVERSION OF 13.22 HA. OF FOREST LAND FOR
CONSTRUCTION OF KHURDA ROAD-BOLANGIR NEW BG RAIL
LINK PROJECT FROM KM. 130 TO 238

Prepared by
Divisional Forest Officer
Boudh Forest Division

**RAISING OF AVENUE PLANTATION OVER 116 RKM IN LIEU OF DIVERSION OF 13.22
HA. OF FOREST LAND FOR CONSTRUCTION OF KHURDA ROAD-BOLANGIR NEW BG
RAIL LINK PROJECT**

❖ **INTRODUCTION:**

East Coast Railway, Boudh has submitted a proposal for diversion of 13.22 ha of forest land for construction of Khurda road- Bolangir New BG Rail Link Project from Km. 180-238. For compliance of the additional condition imposed by the State Govt. a Scheme for raising of Avenue Plantation over 116 Rkm. on either side of alignment of the track has been prepared as per the approved plantation cost norm communicated vide memo no. 18547 dt. 02.11.2021 of Principal Chief Conservator of Forests, Odisha, Bhubaneswar.

❖ **OBJECTIVE OF THE SCHEME:**

- To arrest environment pollution, rise of atmospheric temperature due to cutting of trees.
- To add greenery and maintain aesthetic value along road side.
- To restocking of the plants against the tree cutting.

❖ **PLANTING TECHNIQUE:**

• **SURVEY & DEMARCATION:**

The area should be surveyed in the field using G.P.S. system. The plantation area to be indicated by sign boards at corners or at point of intersection with roads. The sign boards should contain the name of the plantation site, area, year of planting, planting module, No. of seedlings planted & other details, if necessary.

• **ALIGNMENT AND STACKING:**

Alignment, stacking and pitting will be taken up in the month of January-February, Pits of size 45 cm X 45 cm X 45 cm will be dug with a spacement of 4 mtrs.

• **RAISING OF NURSERY:**

Seedlings required for this plantation shall be raised in the Permanent nursery, which is the perennial source of seedling and 10% extra seedlings shall be raised to compensate and mitigate the eventuality of seedling casualty in the nursery. Standard nursery practices shall be followed for raising of seedlings in polythene bags. Permanent gaps need to be assessed well in advance where plantation can be done.

- **PLANTING & POST-PLANTING OPERATION:**

The road side will be re-stocked by way of raising 29000 nos. plant in Avenue model. Taking into consideration of the soil condition and existing species growing there naturally, the following species are proposed to be planted in dug out pits of 45 cm X 45 cm X 45 cm maintaining a spacing of 4 mt. between the pits. Plantation should be taken up after first regular shower of monsoon and should ideally be completed by end of July. NPK/DAP fertilizer @ 50 gms per plant should be given as basal dose. Anti-termite and insecticide @ 5 gms. per plant should be applied per pit while planting. Casualty replacement whenever required during the planting year and in the subsequent years up to third year should be undertaken for which the seedlings shall be raised and kept in stock at site as well as in the nursery..

Sl. No.	Common Name	Scientific Name
1	Sunari	<i>Cassia fistula</i>
2	Patoli	<i>Stereospermum chelonoides</i>
3	Amla	<i>Phyllanthus emblica</i>
4	Gangasiuli	<i>Nyctanthes arobr-tristis</i>
5	Kamini	<i>Murraya paniculata</i>
6	Kurei	<i>Holarrhena antidysenterica</i>
7	Telkuruma	<i>Ixora arborea</i>
8	Baula	<i>Mimusops elengi</i>
9	Harida	<i>Terminalia chebula</i>
10	Kurudu	<i>Gardenia gummifera</i>

- **WEEDING, SOIL WORKING AND MANURING:**

For establishment and boost up growth of the planted seedlings, weeding, soil working, manuring, soil & water conservation in the form of half moon trenches are necessary. Application of vermi compost shall be given preference. First weeding shall be carried out after the first pair of leaf of the planted species have come up preferably in August. The detailed cost estimate of various operations to be taken up in Avenue plantation has been furnished below.

- **PROTECTION:**

The important element of successful plantation is Protection. To protect the plantation from grazing and other biotic interference, it will be provided with Iron Wire Mesh Gabion and watchers are to be engaged on daily wage basis for ten years but they should be assigned with specific work and their involvement in protecting the plantation should be ensured. It is suggested not to engage a particular person for the entire ten years but considering the work efficiency of the person, if not found suitable should be replaced.

- ❖ **POINTS OF IMPORTANCE:**

While taking up plantation, the following aspects shall be taken up for consideration.

- All care should be taken to raise healthy seedlings of minimum 45cm height and 10% extra of the required stock has to be raised. Pitting shall be invariably done during January-February, when the soil is moist by fall of dew. Planting shall be done at the onset of monsoon.
- Basal dose of 50 grams of NPK and 5 grams of Bio-pesticide be applied at the time of planting. Casualty replacement, weeding and soil working, application of fertilizer and insecticides shall be taken up as per the provisions made in the cost norm at the proper time. Engaging requisite watchers as per norm is mandatory.
- All out efforts be taken to keep the plantation free from grazing, fire and other biotic interference.

- ❖ **FUNDING AGENCY:**

East Coast Railway, Boudh.

- ❖ **EXECUTING AGENCY:**

Divisional Forest Officer, Boudh Forest Division.

- ❖ **TOTAL FINANCIAL OUTLAY FOR THE SCHEME:**

The total financial outlay of the scheme is Rs. 10,87,99,555/-


24/01/2022
Divisional Forest Officer
Boudh Division

COST NORM FOR RAISING OF AVENUE PLANTATION OVER 116 RKM
(18 Months Old Seedling)
(250 plants per RKM, Spacing of 4 metres between plants)

Wage Rate Rs. 315/- Per Manday Vide Notification No. 5639/LC, Bhubaneswar dt. 02.11.2021 of Labour Commissioner, Odisha & as per Plantation Cost Norm approved by PCCF, Odisha Bhubaneswar vide his O.O No. 1087 dt. 02.11.2021

Sl. No.	Item of work	Preferable Period of Execution	No. of M.Ds	Labour Cost (Rs.)	Material Cost (Rs.)	Total Cost (Rs.)
A. 0th Year (Advance work)						
1	Survey, demarcation, site preparation, alignment & stacking	Feb-Mar	4	1260	100	1360
2	Digging of pits (45 cmX 45 cm X 45 cm) / 50 cm diameter augur hole	Feb-Mar	10	3150	0	3150
	Total		14	4410	100	4510
3	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					226
	Grand Total		14	4410	100	4736
B. 1st Year / Planting Year						
1	Cost of of transportation of seedlings in hired truck /tractor from the Permanent/Mega nursery to planting site including loading & unloading. (Average lead of 10 Rkm) to the planting site@ Rs.6 per seedling (250+25=275 nos)		0	0	1650	1650
2	<p>A. Organic compounds/ CDM/ FYM/vermicompost (125 cft. @ 0.5 cft per pit) @ Rs.25.00 per cft.=Rs. 3125/-</p> <p>B. Basal dose NPK/Bio-Fertilizer @ 50 gms per plant =12.5Kg @ Rs.30/- kg=Rs.375/-</p> <p>C. Insecticide/Bio Pesticide @5 gms per pit =1.25Kg @ Rs.150/- per kg =Rs 188/-</p> <p>D. Urea /DAP/Bio-fertilizer in two subsequent doses= Rs.800/-</p>	June-July	0	0	4488	4488

3	Planting of Seedlings after careful removal from polybags including mixing of FYM/CDM,Vermicompost, Insecticide/ NPK/Bio Fertilizer and Scooping the soil and pressing the soil around the plants	July-August	6	1890	0	1890
4	Casualty Replacement @ 10%	July-August	1	315	0	315
5	1st Weeding within 0.5 mtr radius around the plant & Manuring	Aug/Sept	8	2520	0	2520
6	Weeding, Soil working (15 cm deep & 0.5 mtr radius around the plant) and application of fertilizer (Urea/DAP/Bio Fertilizer etc.)	Oct/Nov	10	3150		3150
7	Provision of soil & water conservation measures by providing circular trench in flat land & half moon trench in slope area at a distance of 0.5 mt from the plant	Sept-Oct	3	945	0	945
8	Watering 1 st Dec to 31 st March (4 months) (10 days per month) including labour, transportation, hire charges of tractor/tanker @ Rs.65.00 per seedling	Dec-March	0	0	16250	16250
9	Watch & Ward July to March 270 days per RKM	July-March	60	18900	0	18900
	Total		88	27720	22388	50108
10	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					2505
	Grand Total		88	27720	22388	52613

Additional Cost towards maintenance of Fencing

1	Gabion made up of Bamboo twigs/Agro Net /HDPE Hexagone @Rs285/- per plant
2	Gabion made up of Iron Wire mesh @Rs1680/- per plant

C. 2nd Year Maintenance

1	Transportation of 25 seedlings from Nursery to plantation site including loading, unloading & conveyance by Tractor @ Rs.6/-- per seedling	Jul	0	0	150	150
2	10% casualty replacement	July-August	1	315		315
3	Weeding, Soil working and application of chemical fertilizer (NPK/DAP/Bio Fertilizer etc.)	Sept-Oct	15	4725	1600	6325

4	Watering 1 st April to 15 th June & 1 st Dec to 31 st March (195 days) including labour (5 days per month), transportation, hire charges of tractor/tanker @ Rs.55.00 per seedling	April-15th June December-March	0	0	13750	13750
5	Watch & Ward Apr-Mar (365 days) per RKM	April-March	80	25200	0	25200
	Total		96	30240	15500	45740
6	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					2287
	Grand Total		96	30240	15500	48027

Additional Cost towards maintenance of Fencing

1	Maintenance for Gabion made up of Bamboo twigs/Agro Net /HDPE Hexagone @Rs42/- per plant
2	Maintenance for Gabion made up of Iron Wire mesh @Rs52/- per plant

D. 3rd Year Maintenance

1	Maintenance of plants including cultural operations, weeding & soil working	Sept-Oct	10	3150	0	3150
2	Watch & Ward Apr-Mar (365 days)per RKM	April-March	80	25200	0	25200
	Total		90	28350	0	28350
3	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					1418
	Grand Total		90	28350	0	29768

E. 4th Year Maintenance

1	Watch & Ward Apr-Mar (365 days) per RKM	April-March	80	25200	0	25200
	Total		80	25200	0	25200
2	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					1260
	Grand Total		80	25200	0	26460

F. 5th Year Maintenance

1	Watch & Ward Apr-Mar (365 days)per RKM	April-March	80	25200	0	25200
	Total		80	25200	0	25200

2	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					1260
	Grand Total		80	25200	0	26460

G. 6th Year Maintenance

1	Watch & Ward Apr-Mar (365 days)per RKM	April-March	80	25200	0	25200
	Total		80	25200	0	25200
2	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					1260
	Grand Total		80	25200	0	26460

H. 7th Year Maintenance

1	Watch & Ward Apr-Mar (365 days)per RKM	April-March	80	25200	0	25200
	Total		80	25200	0	25200
2	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					1260
	Grand Total		80	25200	0	26460

I. 8th Year Maintenance

1	Watch & Ward Apr-Mar (365 days)per RKM	April-March	80	25200	0	25200
	Total		80	25200	0	25200
2	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					1260
	Grand Total		80	25200	0	26460

J. 9th Year Maintenance

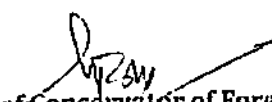
1	Watch & Ward Apr-Mar (365 days)per RKM	April-March	80	25200	0	25200
	Total		80	25200	0	25200
2	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					1260
	Grand Total		80	25200	0	26460

K. 10th Year Maintenance						
1	Watch & Ward Apr-Mar (365 days)per RKM	April-March	80	25200	0	25200
	Total		80	25200	0	25200
2	Monitoring, Evaluation, Learning, Documentation & any other Contingency upto 5% of the total cost.					1260
	Grand Total		80	25200	0	26460
Additional Cost towards maintenance of Fencing						
1	Maintenance for Gabion made up of Bamboo twigs/Agro Net /HDPE Hexagone @Rs42/- per plant					
2	Maintenance for Gabion made up of Iron Wire mesh @Rs.52/- per plant					


ABSTRACT FOR 116 Rkm. (29000 Nos. PLANTS)

Sl. No.	Item of work	No. of M.Ds	Labour Cost (Rs.)	Material Cost (Rs.)	MELD & Other Contingency	Seedling Cost (Rs.)	Total Cost (Rs.)
1	0 th year	14	4410	100	226	0	4736
2	1 st year	88	27720	22388	2505	13973	66586
3	2 nd year Maint.	96	30240	15500	2287	1270	49297
4	3 rd year Maint.	90	28350	0	1418	0	29768
5	4 th year Maint.	80	25200	0	1260	0	26460
6	5 th year Maint.	80	25200	0	1260	0	26460
7	6 th year Maint.	80	25200	0	1260	0	26460
8	7 th year Maint.	80	25200	0	1260	0	26460
9	8 th year Maint.	80	25200	0	1260	0	26460
10	9 th year Maint.	80	25200	0	1260	0	26460
11	10 th year Maint.	80	25200	0	1260	0	26460
	Grand Total	848	267120	37988	15255	15243	335606
A	Cost of plant including 10 years maintenance = Rs. 335606 per Rkm.				Cost for 116 Rkm.		38930296
B	Gabion made of iron Wire Mesh including maintenance for 3 year = Rs.1784/- per plant extra				Cost For 29000 Gabions x Rs. 1784/-		51736000
	Cost for 116 Rkm. (29000 Nos. plants) (Sub Total)						90666296
C	Escalation Cost 20%						18133259
	Cost for 116 Rkm. (29000 Nos. plants)						108799555

Approved by


Regional Chief Conservator of Forests
Berhampur Circle

Submitted by


Divisional Forest Officer
Boudh Division