SCHEME FOR COMPENSATORY AFFORESTATION OVER AN AREA OF 30 HA IN DEGREDED FOREST LAND IDENTIFIED IN IDONGIRI RF UNDER RAMGIRI RANGE OF PARLAKHEMUNDI FOREST DIVISION FOR DIVERSION OF 14.012 HA OF FOREST LAND FOR THE PURPOSE OF CONSTRUCTAION OF 132KV LILO TRANMISSION LINE FROM EXISTING 132KV MOHANA TO DIGAPANDI SC LINE TO PROPOSED 132/32KV SUB– STATION R- UDAYAGIRI BY ODISHA POWER TRANSMISSION CORPORATION LIMITED, BERHAMPUR, GANJAM.
IN THE DISTRICT OF - GAJAPATI, & IN THE STATE OF ODISHA.

PREPARED BY

DIVISIONAL FOREST OFFICER
PARLAKHEMUNDI FOREST DIVISION
PARLAKHEMUNDI

ELEMENTS OF THE SCHEME FOR COMPENSATORY AFFORESTATION

(1)

CHAPTER-I

BRIEF NOTE ON THE PROPOSED FOREST DIVERSION PROPOSAL.

M/S OPTCL Berhampur have a proposal for construction of proposed 132KV LILO transmission line from existing 132KV Mohana to Digapahandi SC line to proposed 132/33 KV sub-station at R-Udayagiri. This project comes under Gajapati District as well as under Parlakhemundi Forest Division, Parlakhemundi. These sub-station are to be constructed in Gajapati District in order to cater qualitative power with stability in transmission system as well as to meet the increased load demand. This line pass through village- Chandiput and Chandragiri revenue circles of Mohana Tahasil and villages of Chheliguda revenue circle of under R- Udayagiri Tahasil. R- Udayagiri is one of the major town of the district Gajapati. It is situated on the State Highway connecting Mohana to Parlakhemundi, which is the District Hade Quarter.

This system shall also fulfill the requirement of additional power to these areas. Therefore the power transmitted through this line will boost the Small Industries and agricultural growth of the area.

Since the project involves Forest land and User Agency has submitted the Forest Diversion Proposal over an area of 14. 012ha under FC Act 1980. As per guidelines, of Ministry of Forest & Environment & Climate Change, Govt. of India, the User Agency shall pay the Compensatory Afforestation cost over 30.00ha of Degraded Forest Land (2 times of the Forest Land Diverted) identified in Idongiri RF for the purpose.

The present Scheme aims at preparation of Site Specific Compensatory Afforestation Scheme over 30.00 ha in degraded forest land identified in Idongiri RF under Ramgiri Range of Parlakhemundi Forest Division with maintenance of a period of 10 years.

`

(2)

CHAPTER-II

DETAILS OF LAND IDENTIFIED FOR COMPENSATORY AFFORESTATION

A-LAND IDENTIFICATION AND JOINT VERIFICATION OF THE IDENTIFIED SITE.

The site for Compensatory Afforestation has been identified in Idongiri RF under Ramgiri Range of Parlakhemundi Forest Division over an area of 30.00ha and the area has jointly verified by the Forest Range Officer Ramgiri Range, Forester jiranga Section and the User Agency. The above identified land has been allotted in favour of M/S OPTCL Barhampur by the Divisional Forest Officer, Parlakhemundi Forest Division vide there Letter No--------Dated----------

B- INFORMATION ON NON-ENCROACHMENT AND NON-ENCUMBRANCE.

The Range Officer Ramgiri Range has verified and Inform that regarding non-encroachment and non-encumbrance on the identified Degraded Forest Land for raising Compensatory Afforestation.

C- INFORMATION ON LAND STATUS.

The Land Status identified and allotted for Compensatory Afforestation in furnished here under.

Sl No	Name of the Forest Division	Name of the Range	Name of the RF	Area in Ha
1.	Parlakhemundi Forest Division	Ramgiri	Idongiri	30.00Ha

D-SUITABILITY OF IDENTIFIED SITE FOR COMPENSATORY AFFORESTATION.

The Identified land is free from encroachment and encumbrance. The Identified land is within Idongiri RF. The area is situated in hilly slops with existing shall crop with its associate species.

The topography of the area is mainly hilly with eroded soil profile having exposed rocks at places necessitating Soil Conservation Measures. However good depth Soil is still available which is conducive for plantation with suitable Soil Conservation Measures. The average temperature varies from 14^0C minimum in December & 45^0C maximum in May. The annual rain fall varies from 1100mm to 1450mm.The maximum rain fall is received during the rainy season from July to September. The identified land is therefore taken up for Compensatory Afforestation in ANR model (1000 no of seedlings/ Ha) over an area of 30.00 Ha in Idongiri RF with site specific SMC measures.

(3)

CHAPTER-III

DELINEATION OF PROPOSED AREA ON SUITABLE MAP

A-TOPOSHEET SHOWING COMPENSATORY AFFORESTATION SITE.

The identified degraded Forest Land over an area of 30.00 Ha in Idongiri RF has been shown in Survey of India Toposheet no- E 45A8.

B-GPS COORDINATES GPS MAP OF THE COMPENSATORY AFFORESTATION SITE.

The area has been demarcated through GPS survey and RCC pillars have been posted around the identified area and the same has been depicted in the Toposheet.

GPS survey data showing latitude and longitude of each point and their chainage with bearing is also enclosed in the Map prepared thereon (Map enclosed).

(4)

CHAPTER-IV

AGENCY RESPONSIBLE FOR COMPENSATORY AFFORESTATION

A-AGENCY RESPONSIBLE FOR PLACEMENT OF FUNDS.

The user agency shall provide funds for raising Compensatory Afforestation as per approved scheme.

B-AGENCY RESPONSIBLE FOR EXECUTION OF COMPENSATORY AFFORESTATION.

The territorial wing of the Forest Department i.e. Divisional Forest Officer Parlakhemundi Forest Division will be assigned the task for Execution of Compensatory Afforestation.

(5)

CHAPTER-V

DATAILS OF WORK SCHEDULE PROPOSED FOR COMPENSATORY AFFORESTATION.

A-PLANTING PLAN

Planting plan reflects the species specific treatment of the identified site. Choice of species is based on the geo-morphology of the site, soil-texture, structure, fertility and depth, proneness of the site to water logging etc. Specific treatment of the site in terms of soil and moisture conservation intervention will be depicted in the treatment map. A treatment map will invariably be prepared for Species to be planted and treatments to be applied to the different patches shown in the treatment map and planting plan. This plan will be followed when actual planting is carried out.

Species to be planted:-

1. Sizyzium cumini (Jamu)
2. Adina cardifolia (Kuruma)
3. Anogeissus latifolia (Dhaura)
4. Accacia catechu (Khair)
5. Dalbergia sissoo (Sissoo)
6. Azadirrachta indica (Neem)
7. Gmelina arborea (Gambhar)
8. Terminalia belerica (Bahada)
9. Terminalia chebula(Harida)
10. Pongamia pinnata (Karanja)
11. Emblica officinalis (Ainla)
12. Tectona grandis (Teak)

B-PRE-PLANTING OPERATION

B (I) - RAISING OF PLANTATION STOCK- NURSERY-

Nursery will be raised @ 1100 seedlings per ha including 10% for casualty replacement.

B (II) – SURVEY, DEMARCATION & PILLAR POSTING, GPS READING WITH MAPPING-

The area has been demarcated through GPS survey and RCC pillars have been posted around the identified area and same has been depicted in the Maps. GPS survey data showing latitude and longitude of each point and the chainage with bearing is also enclosed in the Map prepared thereon. The user agency has erected has sign board depicting the details of the site, area, purpose etc. at the identified site.

(5)

B (III- SITE PREPARATION AND SILVICULTURAL OPERATION INCLUDING CLEARANCE OF WEED, CLIMBER CUTTING, HIGH STUPM CUTTING, SINGLING OF SHOOTS-

The clearing of site involving removal of invasive weeds, bushes, climbers, high stumps and singling of shoots will be taken up preferably by the end of February and latest by the end of March. Pits of the dimension 30 x 30 x 30 cm. Will be dug @ 1000nos per ha. In the available gaps preferably 2 month before or at least a month before planting of seedling.

C-PLANTING OPERATION.

Planting seedling will be taken up in the month of July. Before planting the seedling raised in the nurseries are to be transported to the planting site and care should be taken so that no seedling will be damaged. The Polythene covering of the balls of earth will be carefully removed before planting. Care will be taken to see that the ball of earth is not broken while doing so. The seedling with all the ball of earth will then be placed firmly in the pit and buried at such a depth that the root collar is well below the surface of the soil. The soil around the plant will be well compacted with the heal as a final step so that there is a proper bond between the ball and the surrounding soil. The earth close to the collar will be slightly elevated so that rain water does not a accumulate very close to the plant.

D – POST PLANTING OPERATION

D (1)-CASUALTY REPLACEMENT

The entire area will be gone over in the same order as plantation was carried out and casualties, if any, will replaced as soon as the main plantation operation is over.

D (2)-WEEDING AND SOIL WORKING

Regular and efficient weeding will start immediately after sprouting of the stumps is complete or after the seedling have started throwing up new buds.

D (3)-MANURING AND INSECTICIDE APPLICATION

On degraded sites urban compost or farmyard manure wherever available, will be added to the soil while refilling the pits. As regards chemical fertilizers, the fertilizer required and dosage @ 50 gms NPK per plant as basal dose and urea @ 70gms per plant will be applied in two spilt doses one in August and the other in September.

D (4)-SOIL MOISTURE CONSERVATION MEASURES

Special Soil Moisture Conservation Measures will be taken up over the entire plantation area with staggered trenches of dimension 2m x 0.5m x 0.5m to the tune of 60nos per ha.

(6)

D (5)-PROTECTION AGAINST FIRE AND GRAZING

Measures are to be taken to protect the entire plantation area form fire and grazing. For that fire line tracing will be ensured to protect the plantation from fire and watch & ward will be provided as per the approved norm to augment protection.

(7)

CHAPTER-VI

COST STRUCTURE OF PLANTATION, PROVISION OF FUNDS AND UTILIZATION

A- ESTIMATE OF COST FOR 1.00 HA. UNDER ANR MODEL (1000 seedlings per ha.) – Wage rate Rs. 213.50/day. (Advance work) pre-planting operation.

0th year Operation

Sl - No.	Item of Work	Preferable Period of Execution	Person days	Labour (Rs.)	Material (Rs.)	Total (Rs.)
1	Survey, Demarcation & pillar posting.GPS Regarding with mapping.	Nov/Dec	2	427.00	-	427.00
2	Site Preparation	Nov/Dec	2	427.00	-	427.00
3	Silvicultural Operation including clearance of weed, climber cutting, high stump cutting singling of shoots etc.	Jan/Feb	5	1067.50	-	1067.50
4	Nursery cost (6 months old seedling) Part @ Rs.10.09/- seedling part (Rs.7.12in 0th year +Rs.2.97 in 1st year) for 1100 seedling (1000+100)	Jan-March	27.50	5871.25	1961.00	7832.25
5	Contingency and Unforeseen Expenditures	**-**	**-**	**-**	280.75	280.75
	Sub Total-		**36.5**	**7792.75**	**2241.75**	**10034.50**
	1st year Operation					
1.	Nursery cost (6 months old seedling)balance @ Rs. 2.97 for 1100 seedling	April -Jul	13.5	2882.25	382.25	3264.50
2.	Pitting 30cm cube size	Feb-Mar	30	6405.00	-	6405.00
3.	Carriage and Planting including casualty replacement	Jul/Aug	25	5337.50	-	5337.50
(8)						
4.	Complete weeding Soil working, Manuring	Aug-Sep	30	6405.00	-	6405.00
5.	Cost of Vermi compost 200gms/plant @ Rs.21.35per kg= Rs.4270.00 and Granular Insecticide 5gms/plant @ Rs.85.40/-per kg.=Rs.427.00	-	-	-	4697.00	4697.00

6.	Cost of Chemical fertilizer (a) Urea 70gms/plant in 2 subsequent doses @ Rs.6.40/-per kg=Rs.448.00 (b) NPK 50gms/plant @ Rs.25.62/-per kg=Rs.1281.00 as basal dose	-	-	-	1729.00	1729.00
7.	Fire line Tracing and Inspection Path.	Feb/Mar	3	640.50	-	640.50
8.	Silvicultural Operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	3202.50	-	3202.50
9.	Soil Conservation Measures (Staggered trenches of dimension 2m x 0.5m x 0.5m @ 60 nos per ha) or its equivalent	Sep/Oct	20	4270.00	-	4270.00
10.	Watch & ward	Aug/Mar	7	1494.50	-	1494.50
11.	Contingency and Unforeseen Expenditures	-	-	-	450.50	450.50
	Sub Total -		**143.50**	**30637.25**	**7258.75**	**37896.00**
2nd Year Operation						
1.	Casualty Replacement including cost of seedling, carriage and planting	Jul/Aug	5	1067.50	1009.00	2076.50
(9)						
2.	Complete weeding and cultural operations	Sep/Oct	10	2135.00	-	2135.00
3.	Soil working and manuring	Sep/Oct	10	2135.00	-	2135.00
4.	Cost of Fertiliser and insecticide (a) Vermicompost 200gm/plant @ Rs.21.35/-per kg=Rs.4270.00 (b) Granular Insecticides 5gms/plant for 100 plants 500gms @ Rs.85.40/-per kg – Rs.42.70	Sep/Oct	-	-	4312.70	4312.70
5.	Fire line Tracing and Inspection Path	Feb/Mar	1	213.50	-	213.50
6.	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	1708.00	-	1708.00
7.	Watch & ward (whole year)	Apr/Mar	7	1494.50	-	1494.50

8.	Contingency and Unforeseen Expenditures	-	-	-	267.00	267.00
	Sub Total-		**41**	**8753.50**	**5588.70**	**14342.20**
3rd Year Operation						
1.	Complete weeding and culture operation	Aug/Sep	5	1067.50	-	1067.50
2.	Soil working	Aug/Sep	5	1067.50	-	1067.50
3.	Fire line Tracing and Inspection Path	Feb/Mar	1	213.50	-	213.50
(10)						
4.	Watch @ ward (whole year)	Apr/Mar	7	1494.50	-	1494.50
	Sub Total-		**18**	**3843.00**	**-**	**3843.00**
4th Year Operation						
1.	Fire line tracing and Inspection Path	Feb/Mar	1	213.50	-	213.50
2.	Watch & ward and cultural operation	Apr/Mar	2	427.00	-	427.00
	Sub Total-		**3**	**640.50**	**-**	**640.50**
5th Year Operation						
1.	Fire line tracing and Inspection Path	Feb/Mar	1	213.50	-	213.50
2.	Watch & ward and cultural operation	Apr/Mar	2	427.00	-	427.00
	Sub Total-		**3**	**640.50**	**-**	**640.50**
6th Year Operation						
1.	Fire line tracing and Inspection Path	Feb/Mar	1	213.50	-	213.50

2.	Watch & ward and cultural operation	Apr/Mar	2	427.00	-	427.00
(11)						
	Sub Total-		**3**	**640.50**	**-**	**640.50**
7th Year Operation						
1.	Fire line tracing and Inspection Path	Feb/Mar	1	213.50	-	213.50
2.	Watch & ward and cultural operation	Apr/Mar	2	427.00	-	427.00
	Sub Total-		**3**	**640.50**		**640.50**
8th Year Operation						
1.	Fire line tracing and Inspection Path	Feb/Mar	1	213.50	-	213.50
2.	Watch & ward and cultural operation	Apr/Mar	2	427.00	-	427.00
	Sub Total-		**3**	**640.50**	**-**	**640.50**
9th Year Operation						
1.	Fire line tracing and Inspection Path	Feb/Mar	1	213.50	-	213.50
2.	Watch & ward and cultural operation	Apr/Mar	2	427.00	-	427.00
	Sub Total-		**3**	**640.50**	**-**	**640.50**
(12)						
10th Year Operation						
1.	Fire line tracing and Inspection Path	Feb/Mar	1	213.50	-	213.50
2.	Watch & ward and cultural operation	Apr/Mar	2	427.00	-	427.00
	Sub Total-		**3**	**640.50**	**-**	**640.50**

(13)

ABSTRACT

Sl No-	Item of work	Person Days	Lobour (Rs.)	Material (Rs.)	Total (Rs.)
1.	0^{th} Year Operation	36.5	7792.75	2241.75	10034.50
2.	1^{st} Year Operation	143.5	30637.25	7258.75	37896.00
3.	2^{nd} Year Operation	41	8753.50	5588.70	14342.20
4.	3^{rd} Year Operation	18	3843.00	-	3843.00
5.	4^{th} Year operation	3	640.50	-	640.50
6.	5^{th} Year Operation	3	640.50	-	640.50
7.	6^{th} year Operation	3	640.50	-	640.50
8.	7^{th} Year Operation	3	640.50	-	640.50
9.	8^{th} Year Operation	3	640.50	-	640.50
10.	9^{th} Year Operation	3	640.50	-	640.50
11.	10^{th} Year Operation	3	640.50	-	640.50
		260	**55510.00**	**15089.20**	**70599.20 Or 70600.00**

(Rupees Seventy thousand six hundred only/HA)

(14)

B- ESTIMATE OF COST FOR THE COMPENSATORY AFFORESTATION SCHEME

Description	Unit	Unit cost (in Rs.)	Total Cost (in Rs.)
ANR Plantation	30.00 Ha.	70.600	21,18,000.00
Add 20% escalation charges			4,23,600.00

(Rupees Twenty five lakh Forty one thousand Six hundred only) 25, 41,600.00

C- PROVISION OF FUNDS AND FUND UTILIZATION

Rs. 25, 41,600.00(Rupees Twenty five lakh Forty one thousand six hundred) only shall be deposited by M/s OPTCL Berhampur and approval of the scheme to the Ad-hoc CAMPA Account and the funds will be utilized for raising of Compensatory Afforsstation by the Divisional Forest Officer, Parlakhemundi Division on allotment by the Principal Chief Conservator of Forest, Odisha , Bhubaneswar.

(15)

CHAPTER-VII

DETAILS OF PROPOSED MONITORING MECHABISM

Compensatory Afforestation will be taken up in the identified site by the Range Officer, Ramgiri Range of Parlakhemundi Forest Division. The Range Forest Officer, Ramgiri Range will undertake field checks of the works undertaken at the identified site and will be cross checked by the Asst. Conservator of Forests, (Affn.) and Divisional Forest Officer, Parlakhemundi Forest Division. GPS co-ordinates along with other requird informations of Compensatory Afforestation will be uploaded in the e-Greenwatch Portal of NIC, MOEF, and Govt. of India for the purpose of online monitoring. Annual progress of plantation involving growth of planted seedling, survival percentage etc. will be monitored and recorded in the plantation journal by the field staffs of Ramgiri Range and reported to the Divisional Forest Officer for necessary action. The same thing will be reported to the Regional Chief Con servitor of Forests, Berhampur Circle and Chief Conservator of Forests (PP&A), O/o the Pr. Chief Conservator of Forests, Odisha, Bhubaneswar and necessary corrective measures will be followed if required so.

Divisional Forest Officer,
Parlakhemundi Forest Division.
Parlakhemundi.