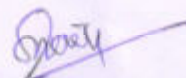


Land Suitability Certificate

An area of 17.401 Ac (7.043 Ha) of forest kissam land is to be diverted for Widening & Strengthening of Raruan-Fagu via Ghagarbeda (ODR) from 0.000km to 25.000 km under CRF Scheme. In lieu of this, User Agency has submitted 17.401 Ac (7.043 Ha) of DGPS survey map which is non-Forest as per DSS developed by FSI. Hence, 17.401 Ac (7.043 Ha) of effective CA land is available for raising of CA against the statutory requirement of 7.043Ha. of non-forest land. Accordingly, over an area of 7.043 Ha. of non-forest kissam land has been identified for raising of Compensatory Afforestation as follows.

This is to certify that 7.043 Ha. of Revenue Non-Forest kissam land in 1 no. of Villages, i.e., **1. Nakasara** of R.I. Circle Ghagarbeda of Tahasil Raruan under Karanjia Range in Karanjia Forest Division are identified for Compensatory Afforestation and found suitable for plantation from management point of view. No plantation has been carried out in the aforesaid area previously.



Divisional Forest Officer
Karanjia Forest Division

EXECUTIVE SUMMARY

The Scheme of Compensatory Afforestation over an area of 7.043Ha. has been prepared in lieu of diversion of forest land over an extent of 17.401 Ac /7.043Ha. for Widening & Strengthening of Raruan-Fagu via Ghagarbeda (ODR) from 0.000km to 25.000 km under CRF Scheme. The Proposed Compensatory Afforestation area has been identified in 1 No. of village under Karanjia Range of Karanjia Forest Division. And adopted one scheme to accommodate 7,043 nos. of seedlings as per Suitability of site-specific land, the details as follows: -

1. Village - Naksara khata no. 230, under Plot No. 24 over an area of 7.043 Ha. under Karanjia Range of Karanjia Forest Division. The said C.A area has been proposed for Compensatory Afforestation @ 1000 plants /Ha. in Block plantation mode for which 7,043 nos of seedlings will be planted in 7.043 Ha with SMC work, Inspection Road, Rest Shed, Re-generation cleaning etc.

Details of Compensatory Afforestation Scheme:

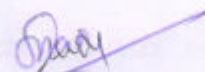
Since, 1 site and 1 no. of patch has been selected for raising of Compensatory Afforestation in Block plantation mode @ 1000 plants/ Ha. with maintenance up to ten years (with 0th year) are prepared as per **One Time Cost Norm for Compensatory Afforestation as approved by PCCF, Odisha Bhubaneswar vide his O.O No. 1109 dt. 08.11.2021** as follows:

Block Plantation @ 1000 plants/Ha.

Tahasil	R.I Circle	Mouza	Khata No.	Plot no.	Area found suitable for plantation	Total Number of Seedlings to be planted
1	2	3	4	5	6	7
Raruan	Ghagarbeda	Nakasara	230	24	7.043	7043
Total					7.043	7043

SUMMARY OF THE COMPENSATORY AFFORESTATION SCHEME

Sl. No.	Mode of Plantation	Area in Ha.	No. of seedlings to be planted
1.	Block Plantation @ 1000 plants/ Ha.	7.043	7043
		7.043	7043



Divisional Forest Officer
Karanja Forest Division

**COMPENSATORY AFFORESTATION SCHEME OVER 17.401 AC/7.043 HA OF
REVENUE NON-FOREST LAND IN MAYURBHANJA DISTRICT IN LIEU OF
DIVERSION PROPOSAL OVER 17.401 AC/7.043 HA FOR WIDENING &
STRENGTHENING OF RARUAN-FAGU VIA GHAGARBEDA (ODR) FROM 0.000KM
TO 25.000 KM UNDER CRF SCHEME BY SUPERINTENDING ENGINEER OF
RAIRANGPUR(R&B) DIVISION.**

INTRODUCTION

This road starts from Raruan (Block head qtr. Of Raruan Block) traverses through good number of villages inhabited with a large number of schedule cast & schedule tribe people via Ghagarbeda & connects Champua. Presently this road is ODR category having 3-meter-wide carrier way which is insufficient to cater the increase volume of traffic. Therefore this road has been proposed to be strengthened and widen to double lane standard under CRF grant. After completion of the project thousands of villagers residing in the vicinity will derive immense benefit such as in their communication, transportation of agricultural produces and forest products to nearby town for sell and the socioeconomic standard of the people will be improved. Apart from the above, the iron ore from mines at Suleipur, Badampahar and Gorumahisani are being transported through this route. The entire length of this road coming under Mayurbhanj District. The flexible pavement design has been computed as per IRC 37:2012. The existing alignment has been considered for improvement to D/L standard within the existing ROW i.e. Maximum up to 16.00 Meter including Geometric Correction and realignment of curves. No need of Land acquisition though required Land is available. The road passes mostly through agriculture & forest land. It is proposed to use half width of the road during execution of work along with suitable cautionary sign boards towards precautionary measures. Retro-refractor Traffic sign boards, location boards, Cautionary sign board etc have been proposed for fixing at required locations.

LAND INVOLVED

These project extents over an area of 17.401 Ac or 7.043 Ha. Forest land for Widening & Strengthening of Raruan-Fagu via Ghagarbeda (ODR) from 0.000km to 25.000 km under CRF Scheme.

DETAILS OF SELECTION OF SITE

District: Mayurbhanja.

Tahasil: Raruan

RI Circle: Ghagarbeda

The Compensatory Afforestation has been identified in Boudh District. The site located on Survey of India Open Series Topo Sheet No. **F45 H16** confined within LATITUDE: 22° 6'18.07"N & 22° 6'1.83"N, LONGITUDE: 85°47'48.76"E & 85°48'5.96"E for UTM **Zone - 45** and indicated on the map enclosed as **Annexure-I**. The proposed areas are free from encroachment, other encumbrances and found suitable for plantation.

Description of Area: The identified Degraded Revenue Non-Forest area is under the possession of Revenue Department.

Soil type: Laterite. Some patches support swallow soil, mixed sand and exposed rock within the site.

Topography: -

Hilly/Undulating/Plain: The topographical configuration of the identified site is undulating.

Slope: The site selected for Compensatory Afforestation have medium to gentle slope.

Whether the area is bearing any root stock of vegetation: The site selected for Compensatory Afforestation has root stock and the existing vegetations are in degraded stage.

Temperature: The area experiences cold weather between November – January when the temperature drops to less than 12° C. the temperature rises steadily from January onwards reaching 30° C to 45° C in summer (May). So, it is under tropical condition with limited rainy days.

Climate& Rainfall: The area has tropical climate with monsoon rains from June to September and occasional rains during the autumn. This area also experiences occasional gusty wind to heavy thunderstorms during summer season (April to June). Monsoon breaks out in early to middle of June and continues up to September. The average annual rainfall is about 1600 mm under the influence of south west monsoon. On average, there are about

100 rainy days. The humidity is maximum in the month of July to August (90%) and minimum in February (36%). The wind velocity varies between 40 KMPH and 80 KMPH, although occasional higher values have also been reported. Lightening incidents are rarely reported in this area.

Plantation Model: The identified site in Mayurbhanja District over 7.043Ha. is having degraded in nature. The topography is gentle and has swallow soil, mixed sand and exposed rock. Thus, it is proposed to take up **Block** plantation model in this area.

Special Objects of Compensatory Afforestation Scheme are as follows:

- To restrict the degradation by reducing the biotic interference to barest minimum and reverse the trend towards the process of restoration of vegetation.
- To develop the forest by providing site-specific silvicultural treatment.
- To facilitate the boosting of natural regeneration and ensure their establishment.
- To take up appropriate soil moisture conservation (SMC) measures to improve the soil and moisture regime.
- To improve the bio-diversity of these blocks.
- To meet the need of the local villagers with regard to firewood and small timber depending upon the productivity (from silvicultural operations like thinning, subsidiary silvicultural operation, climber cutting, cutting of high stumps, double shoot cutting etc.)

Item of works to be taken up:

To achieve the above objectives, the following items of works are mainly prescribed to be taken up

- Survey & Demarcation of Boundary.
- Fencing.
- Site Clearance & Planting in gaps
- Soil & Moisture Conservation Measures.
- Protection of Plantation
- Peoples Participation
- Monitoring & Evaluation Mechanism

Survey & Demarcation of Boundary: The identified area has been surveyed by DGPS and also map has been prepared. The area will be demarcated with RCC pillars of size 1.0 m x 15 cm x 15 cm for clear demarcation of the area.

Fencing: To protect the plantation from grazing and other biotic interference, it will be provided with Iron Mesh & Chain Link Wire over an area of 7.043 Ha..

Site Clearance & Planting: Plantation over 7.043 Ha. shall be taken up with planting model of AR(Block) 1000 plants/Ha.. Site clearance and cleaning to be done in the treatment area to create gap for plantation. Silvicultural cleaning by cutting of high stumps, removal of weeds, singling of multiple shoots, removal of plants in congested areas will be done, so that the plants get optimum condition for growth. All post planting measures like casualty replacement, soil working, manuring, watering, fire protection etc. will be undertaken.

Species: Although indigenous species are to be preferred in the plantation, considering adverse soil & moisture conditions, we may go for hardy exotic species where ever required, so that the plants are able to survive. For success of plantation in interior tribal areas, plantation of fruit and NTFP species plays a great role since economic species have a little value for local people. Considering the topography, soil and moisture availability of the plantation area, the following species will be planted.

Name of species	Common name	Remarks
Terminalia arjuna	Arjun	
Azadirachta indica	Neem	
Pongamia pinata	Karanja	
Emblica officinalis	Amla	
Dalbergia sissoo	Sissoo	In lower areas with good soil depth
Gmelina arborea	Gambhari	In lower areas with good soil depth
Terminalia tomentosa	Asana	In lower areas with good soil depth
Albizia lebbeck	Sirisa	
Zizyphus mauritania	Barakoli	In rocky area with low soil depth
Acacia catechu	Khaira	
Acacia auriculiformis	Sunajhari	Due to Eroded & Murom soil
Acacia nilotica	Babul	
Acacia Mangium	Mangium	

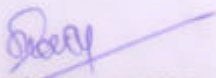
Melia Azedarach	Mahaneem	
Tectona grandis	Saguan	

Soil and Moisture Conservation Works: - Since most of the areas are hilly and undulating, half-moon trenches on down-hill side of plants should be constructed. In the slopes, staggered trenches of 2m x 50Cm x 50Cm should be dug in between the planting line along the contours, and the excavated earth be piled on the downhill side to form a bond. The staggered contour trenches will act as place of deposit of eroded soil and check soil erosion. In Nallahs, LBCD structures are to be constructed from top to bottom as per the specific site condition, which will retard the velocity of run-off and be helpful in feeding ground water to the plants planted below it.

Protection of the plantation: - Iron Mesh & Chain Link Wire along the periphery of the plantation will be provided. Few watchers will also be engaged for protection of the plantation. Assistance of V.S.S is necessary for better protection of plantation.

Peoples Participation: In the recent times, no scheme shall be effective if the local villagers are not involved in the implementation of the scheme itself. The villagers who are having a right on the NTFP items in the adjoining forest area are to be associated with the implementation of the scheme at all different levels. For that, Van Suraksha Samiti (VSS) is proposed to be constituted in all the villages around the Compensatory Afforestation site. The villagers are to be motivated, inspired and above all, explained the benefits they will be getting, if plantation is protected by them.

Monitoring & Evaluation Mechanism: - The scheme shall be executed by the Divisional Forest Officer, Karanjia Forest Division with his staff and all prescribed records are to be maintained. In addition to internal monitoring by Forest Officers of State Government, a Monitoring Committee under item no. 3.4 (iii) of consolidated guidelines under F.C Act 1980 issued by MoEF, shall be established with a nominee of the Central Government to oversee that the stipulations, including those pertaining to Compensatory Afforestation are carried out.


 Divisional Forest Officer
 Karanjia Forest Division

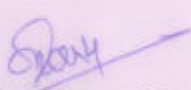
Financial Outlay for raising of **Compensatory Afforestation Scheme** over an area of **7.043 Ha. in AR(Block) Plantation mode @ 1000 plants/ Ha.**, of revenue non-Forest land in **Karanjia Forest Division** to accommodate **7043 nos. of plants**. The said scheme has been prepared as per **One Time Cost Norm for Compensatory Afforestation as approved by PCCF, Odisha Bhubaneswar vide his O.O No. 1109 dt. 08.11.2021 with commencement of plantation from 2021-22.**

**COST NORM FOR BLOCK PLANTATION FOR COMPENSATORY AFFORESTATION AT NASKARA,
BLOCK UNDER TAHSIL DISTRICT OF KARANJIA FOREST DIVISION,
DIST:MALKANGIRI**

As per the One time Cost Norm for Compensatory Afforestation of the Addl. PCCF, Forest Diversion & Nodal Officer, FC Act, Odisha vide Office Order No. 1109/9F-(Misc)-387/2021 dated 08.11.2021 & Memo No. 20565 dated 01.12.2021 of the Conservator of Forests (Nodal)

Spacing: 2.5 Mtr x 2.5 Mtr		
No. of Plants to be Planted: 1000 Plants/ ha. (18 Months old seedling)		
Wage rate: @ Rs. 315/- Per Man Day.		
Sl. No.	Description	Amount(Rs.)
1	Cost Plantations	
	AR (Block) Plantation @ 1000 Plants per Ha. over 7.043 Ha. without fencing @ Rs. 2,34,718/- per Ha. with provision of 10 Years maintenance	1,653,119.00
2	SMC Activities like Staggered Trench, Percolation Pit, Contour trench, Graded earthen bund, LBCD, Wire mesh LBCD, Sub surface Dyke & WHS per the slope & site requirement @ Rs. 35,633/- per Ha. over 7.043 Ha.	250,963.00
3	Watering Provision with 2 nos. Diesel pump set with Bore Well (1 pump set + Bore well) @ Rs. 4,78,294 /- per 1000 nos. seedlings over 7.043 Ha. (7043 nos. seedling) with 5 years maintenance	956,588.00
4	Cost of Fencing with Angel Iron & Chain Link Wire Mesh over 7.043 Ha. @ Rs. 4,19,331/- per Ha. with 10 years maintenance	2,953,348.00
5	Cost of inspection path	1,000,000.00
6	Watch and Ward (02 nos. watcher) for 10 years	1,965,600.00
	Total	8,779,618.00
7	15% of the plantation cost towards EPA/ Incentive to VSS & Monitoring, Evaluation	1,316,943.00
	Total	10,096,561.00
8	Add Escalation Cost (20%)	2,019,312.00
	G. Total	12,115,873.00
	Or Say	12,116,000.00

(Rupees One crore twenty one lakh sixteen thousand) only


Divisional Forest Officer,
Karanjia Forest Division.

All CA will be raised outside forest are where heavy biotic pressure is experienced and the identified CA areas are arid in nature. So as to raise successful CA, provision of watering & fencing is a sine qua non for which watering & fencing provision is adopted.

Approved

Regional Chief Conservator of Forests
Baripada Circle.