

**SCHEME FOR COMPENSATORY
AFFORESTATION IN NON-FOREST LAND
OVER 9.195 HA. IDENTIFIED IN MOUZA -
JHADABALASKUMPA UNDER KAJURIPARA
TAHASIL OF KANDHAMAL DISTRICT.**

**FOR
DIVERSION OF 9.195 Ha. FOREST KISSAM
LAND OF KANDHAMAL DISTRICT.**

**Divisional Forest Officer
Phulbani Forest Division
Phulbani, Kandhamal.**



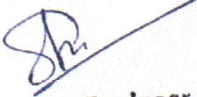
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Rural Works Division
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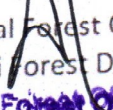
Land Suitability Certificate

An area of 22.721 Ac. (9.195Ha.) of forest Kissam land is to be diverted for Improvement of Road from Samapaju to Panisal road under inter District inter Block connectivity for the year 2020-21.

The proposed CA land of 9.195 Ha. area in one number village i.e. Jhadabalskumpa of R.I Circle Sudrukumpa of Tahasil Khajuripada under Phulbani Range in Phulbani forest Division is found to be suitable for plantation from management point of view in ANR gap plantation @200 seedling per hectare model

No plantation has been carried out in the aforesaid area previously.


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EXECUTIVE SUMMARY

The Scheme of Compensatory Afforestation over an area of 9.195 Ha has been prepared in lieu of diversion of forest land over an extent of 22.721 Ac/ 9.195 Ha. for Improvement of Road from Samapaju to Panisal road under inter District inter Block connectivity for the year 2020-21. The Proposed Compensatory Afforestation area has been identified in 1 No. of village under Phulbani Range of Phulbani Forest Division. And adopted one scheme to accommodate 1,839 nos. of seedlings as per suitability of site-specific land, the details as follows: -

1. Village - Jhadabalaskumpa Khata No. 79, under Plot No. 795/802 over an area of 9.195 Ha. under Phulbani Range of Phulbani Forest Division. The said C.A area has been proposed for Compensatory Afforestation @ 200 plants /Ha. in ANR plantation mode for which 1,839 nos. of seedlings will be planted in 9.195 ha. with SMC work, Inspection Road, Rest Shed, Re-generation deaning etc..

Details of Compensatory Afforestation Scheme:

Since, 1 site and 1no. of patch has been selected for raising of Compensatory Afforestation in ANR plantation mode @ 200 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:


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ANR Plantation @ 200 Plants/Ha.

Tahasil	R.I Circle	Mouza	Khata No.	Plot no.	Area in Ha. found suitable for plantation	Total Number of Seedlings to be planted
1	2	3	4	5	6	7
Khajurpada	Sudrukumpa	Jhadabalas kumpa	79	795/802	9.195	1,839
Total					9.195	1,839

SUMMARY OF THE COMPENSATORY AFFORESTATION SCHEME

Sl. No.	Mode of Plantation	Area in Ha.	No. of seedlings to be planted
1.	ANR Plantation @ 200 Plants/ Ha.	9.195	1,839
		9.195	1,839

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Compensatory Afforestation Scheme over 9.195 ha of Revenue Non-Forest Land in Kandhamal District in lieu of Forest Diversion Proposal over Improvement of road from Samapaju to Panisal Road under inter District inter Block connectivity for the year 2020-21 scheme by Superintending Engineer of Boudh Rural Works Division.

INTRODUCTION

This Road connecting Samapaju to Panisal road leading to Khajuripada block Head Qr. Most of people depend upon this road for their day to day marketing, Education & Hospitality at Kandhamal. This road is an important road on the proposed reaches following provisions such as road New formation, GSB, Gr-II/III, B.T and C.C. road in village portion & Renewal coat of CC road has been provided and all necessary provision has been provided in this estimate to bring it trafficable condition.

LAND INVOLVED

These project extents over an area of 22.721Ac or 9.195 Ha. Forest land for Improvement of Road from Samapaju to Panisal road under inter District inter Block connectivity for the year 2020-21.

DETAILS OF SELECTION OF SITE

District: Kandhamal.

Tahasil: Khajuripada.

RI Circle: Sudrukumpa.

Village: Jhadabalaskumpa

The Compensatory Afforestation has been identified in Phulbani Forest Division of Kandhamal District. The site located on Survey of India Open Series Topo Sheet No. **F45S7** confined within Latitude: 20°29'20.9043"N to 20°29'11.927"N, Longitude: 84°21'0.620"E to 84°21'10.1804"E and indicated on the map enclosed as Annexure – I. The proposed areas are free from encroachment other encumbrances and found suitable for plantation.


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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: -

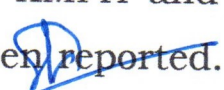
Hilly/Undulating/Plain: The topographical configuration of the identified site is undulating.

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 1° C. The temperature rises steadily from January onwards reaching 28° C to 41° 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 gutsy 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 1597 mm under the influence of south west monsoon. On average, there are about 77 rainy days. The humidity is maximum in the month of July to August (90%) and minimum in February (52%). The wind velocity varies between 60 KMPH and 90 KMPH, although occasional higher values have also been reported. Lightening incidents are rarely reported in this area.


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Plantation Model: The identified site in Sambalpur Forest Division of Sambalpur District over 9.195 Ha. 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 **ANR** 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


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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 Solar Fencing over an area of 9.195 Ha.

Site Clearance & Planting: Plantation over 9.195 Ha. shall be taken up with planting model of ANR 200 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.
Dendrocalamus strictus	Salia Bamboo	In lower areas with good soil depth healthy seedling from rhizomes may be planted.

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<i>Terminalia tomentosa</i>	Asana	In lower areas with good soil depth.
<i>Madhuca indica</i>	Mahul	Only two years old seedling may be planted.
<i>Terminalia belerica</i>	Bahada	
<i>Albizia lebbeck</i>	Sirisa	
<i>Zizyphus mauritania</i>	Barakoli	In rocky area with low soil depth.
<i>Acacia catechu</i>	Khaira	
<i>Mangifera indica</i>	Mango	In situ planted (direct placing of mango stone in planting site) during pre-monsoon may be adopted in few lower areas or where life-saving watering can be done during summer.
<i>Syzygium cumini</i>	Jamu	
<i>Ficus benghalensis</i>	Bara	
<i>Ficus religiosa</i>	Pipal	
<i>Artocarpus heterophyllous</i>	Panasa	

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.



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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 Samrakhyana 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, Phulbani 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.

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**COST NORM FOR ANR PLANTATION FOR COMPENSATORY
AFFORESTATION AT JHADABALASKUMPA UNDER KHAJURIPADA TAHSIL
OF KANDHAMAL DISTRICT UNDER PHULBANI WILDLIFE DIVISION.**

As per onetime 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 Conservator of Forests (Nodal)

No. of Plant to be planted: 1839 Plants (18-Month-Old Seedling)

Wage Rate: @ 345/- Per Man Day

Sl. No.	Description	Amount (Rs.)
1.	Cost of Plantations	
A	ANR Plantation @ 200 plants per Ha. over 9.195 Ha. without fencing @ Rs. 1,05,986/- per Ha. with provision of 10 years maintenance	9,74,541.27
2.	SMC Activities like Staggered Trench, Percolation pit, Contour trench, Graded earthen bund, LBCD, Wire mesh LBCD, Sub surface Dyke & WHS as per the slope & site requirement @ Rs. 39,284/- per Ha. over 9.195 Ha.	3,61,216.38
3.	Watering Provision with 1 no. Bore well fitted with solar pump set @ Rs. 5,20,261/- per 1839 nos. seedlings over 9.195 Ha. with 5 years maintenance	5,20,261.00
4.	Cost of Fencing with Solar over 9.195 Ha. @ Rs. 1,78,547 per Ha. with 10 years maintenance	16,41,739.66
	Total	34,97,758.31
5.	15% of the total plantation cost towards EPA/Incentive to VSS & Monitoring, Evaluation.	5,24,663.74
	Grand Total	40,22,422.05 or say 40,22,422.00

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