

**SCHEME PROPOSALS FOR COMPENSATORY
AFFORESTATION (CA) IN BOATH RANGE OF
ECHODA DIVISION INLIEU OF
CONSTRUCTION OF 220 KV DC LINE FROM
400/220 KV SS NIRMAL TO THE PROPOSED
220/132 KV SS UTNOOR IN ECHODA DIVISION
OF ADILABAD DISTRICT**

AREA: 8.40 Ha

ABSTRACT FOR RAISING OF PLANTATION IN C.A. LAND (DFL).IN COMPARTMENT NO 08 OF BEAT KOWTHA(S) OF SECTION SONALA OF RANGE BOATH OF ECHODA DIVISION TO AN EXTENT OF 8.40 HA, IN LIEU OF THE DIVERSION OF FOREST LAND FOR CONSTRUCTION OF 220 KV DC LINE FROM 400/220 KV SS NIRMAL TO THE PROPOSED 220/132 KV SS UTNOOR IN ECHODA DIVISION OF ADILABAD DISTRICT.

1.0 INTRODUCTION

The Superintending Engineer, OMC Circle, TSTRANSCO, Adilabad has submitted the proposals for diversion of forest land for Construction of 220 KV DC line from 400/220 KV SS Nirmal to the proposed 220/132 KV SS Uttoor in Echoda division of Adilabad District. In this regard, the double the Degraded Forest land (DFL) identified for Compensatory Afforestation in Echoda Division to an extent of 8.40 Ha. in RF Kaddam, Compartment No. 08 of Kowta(S) beat of Sonala section of Boath Range of Echoda division towards Compensatory Afforestation purpose. The details of CA area are as follows.

Sl.No.	Division / Range	Section/Beat	Compt. No	Extent in Ha (DFL)
1	Echoda / Boath	Sonala / Kowta (S)	08	8.40
	Total			8.40 Ha

1.1 Accordingly 8.40 Ha of double the Degraded Forest Land (DFL) was allotted under CA. The area proposed for CA is having existing tree growth and coppice growth with the species like *Tectona grandis* (Teak), *Albizia lebbek* (Dirisanam), *Ficus religiosa* (Ravi), *Terminalia tomentosa* (Nallamaddi), *Terminalia Arjuna* (Tellamaddi) , *Butea monosperma*(Moduga), *Terminalia Bellarica* (Tani), *Madhuca longifolia* (Ippa), *Semicarpus anacardium*(Jeedi) , *Cassia fistula* (Rela), *Cleistanthus collinus* (Nalla Kodisha), *Buchanania lanzan* (Morri). The area is undulating hillock with minor streams passing through it and covered with mostly red morrum and black cotton soil and rocky patches.

1) **Compensatory Afforestation:** The proposed CA land is an extent of 8.40 Ha. The area is mostly rocky patches and hard gravelly soils and gentle slope for

which Protection and SMC like, CPT, Percolation tanks and Chainlink mesh fence around CA areas are proposed which includes providing of Watch and Ward and SMC works along with regeneration with afforestation plantation. The proposals have been prepared to take up Intensive Protection, Coppicing and Singling of the existing valuable species like long rotation high value timber species (Teak and associated species).

The proposals have been prepared with a cost of **Rs 1,80,60,000 /-**
The year wise scheme proposals are as hereunder (Appendix – I)

This scheme will be monitored through the machinery of Forest Department at various levels.

Sl.No.	Year	Financial (in Rs)
1	2019-20	3202800
2	2020-21	11496100
3	2021-22	1221200
4	2022-23	277300
5	2023-24	305000
6	2024-25	335600
7	2025-26	369200
8	2026-27	406000
9	2027-28	446600
	TOTAL	18059800
	OR	1,80,60,000

The Compensatory Afforestation scheme is prepared over an area of 8.40 Ha under AR method for a period of 7 years maintenance basing on the Forest Schedule of Rates for the year 2018-19 of Zone-II with an escalation of 10% for 2019-20 and with an annual escalation of 10% for the subsequent years, provided the funds are to be deposited and has to be released during the year 2018-19.

2.0 AIMS AND OBJECTIVES:

The objectives of the scheme are as follows.

- 2.1 To create small timber and fuel wood resources to meet the needs of the local public.

- 2.2 To reduce pressure on the already depleted resource requirements of small timber, fuel and fodder of local tribal people.
- 2.3 To fulfill broader objective of sustainable environmental conservation for the general good of the people.

To fulfill the above objectives, it is proposed to take up the afforestation over an area which is double DFL to the area proposed for diversion for non-forestry purpose, i.e., 8.40 Ha. The plantations will be taken up with the Indigenous Secondary hard wood Species and its associates mixed with local NTFP, Ficus species like Ficus religiosa (Ravi), Ficus benghalensis (Marri), Juvvi and Dendrocalamus strictus (Bamboo) and with fuel wood, fodder and locally suitable NTFP species.

3.0 ELEMENTS OF THE PROJECT

3.1 Details of the lands identified for raising compensatory afforestation are as follows.

Sl.No.	Division / Range	Section/Beat	Compt. No	Extent in Ha (DFL)
1	Echoda / Boath	Sonala / Kowta (S)	08	8.40
	Total			8.40 Ha

3.2 NAME OF THE SCHEME

Compensatory Afforestation in lieu of diversion of forest land for “Construction of 220 KV DC line from 400/220 KV SS Nirmal to the proposed 220/132 KV SS Utnoor in Echoda division of Adilabad District”.

3.3 SITUATION

The proposed Compensatory Afforestation areas as shown in the above statement are situated in Forest division Echoda and fit for CA scheme.

3.4 GEOLOGY

The geology of the proposed area for Compensatory Afforestation is Sub-Cretaceous – Eocene – Deccan Trap, Late Precambrian – Salluvai series, Archaean Granites, Gneisses and schists.

3.5 SOIL

The soils of area proposed for Compensatory Afforestation area vary with the underlying rock formation patches with hard gravelly soils predominantly block cotton soils with gravelly stones. The Deccan tract gives rise to black cotton soils and lateritic soils. The later disintegrates to form "Murram". Sand stones give rise to sandy or loamy soils and gives rise to black soils. Composite gneisses yield black loamy and granites brown sandy soils. There is continuous erosion of top soil due to undulating terrain and disturbing biotic factors.

General distribution of soils in the division

Black cotton soils 63 % Mostly in Boath, Echoda Ranges; partly of Adilabad and Utnoor Ranges.

Chalka and Red Soils 27% Mostly in Indervelly, Utnoor partly in Adilabad Range

Sandy loams and other 5% Mostly in Utnoor / Echoda and Indervelly Ranges.

Saline & Alkaline soils 2% Scattered and spread over the division

3.6 CLIMATE :

The climate is fairly dry with very hot summer and cool winters. During summer, the temperature rises upto 47 degree centigrade. Summer and winter are separated by prolonged rainy season. The area is served by South-West Monsoon. However, Cyclonic rains are common during October – December.

3.7 RAINFALL :

Rainfall is mostly from the Southwest monsoon, cyclonic rains during October – December are quite common. The normal rainfall in a year ranges from 1000 mm to 1100 mm. The average rainfall for the past (12) years is 1051 mm.

3.8 EXISTING VEGETATION:

The area is having vegetation of *Tectona grandis* (Teak), *Albizia lebbeck* (Dirisanam), *Ficus religiosa* (Ravi), *Terminalia tomentosa* (Nallamaddi), *Terminalia Arjuna* (Tellamaddi) , *Butea monosperma*(Moduga), *Terminalia Bellarica* (Tani), *Madhuca longifolia* (Ippa), *Semicarpus anacardium*(Jeedi) , *Cassia fistula* (Rela), *Cleistanthus collinus* (Nalla Kodisha), *Buchanania lanzan* (Morri), etc.

3.9 AGENCY RESPONSIBLE FOR AFFORESTATION:

The afforestation programme will be implemented by the Telangana Forest Department through the Forest Divisional Officer, Echoda.

3.10 DETAILS OF WORK SCHEDULE PROPOSED FOR COMPENSATORY AFFORESTATION

The details of work schedule proposed for compensatory afforestation year wise is as follows.

- 2019-20 i. Advance Operations
 - ii. Drilling of borewell with Solar pumpset & Laying of Pipe Line
 - iii. Construction of plantation boundary pillars
 - iv. Erection of plantation hut
- 2020-21 i. Raising of plantation
 - ii. Digging of trench work around CA plantation
 - iii. Formation of Percolation tanks
 - iv. Bund stabilization
 - v. Erection of Chainlink mesh fence
- 2021-22 i. 1st year maintenance of plantation
- 2022-23 i. 2nd year maintenance of plantation
- 2023-24 i. 3rd Year maintenance of plantation
- 2024-25 i. 4th year maintenance of plantation
- 2025-26 i. 5th year maintenance of plantation
- 2026-27 i. 6th year maintenance of plantation
- 2027-28 i. 7th year maintenance of plantation

3.11 COST STRUCTURE:

A compensatory afforestation scheme for **Rs. 1,80,60,000 /-** is prepared (Appendix-I). The year wise expenditure will be as hereunder.

Sl.No.	Year	Financial (in Rs)
1	2019-20	3202800
2	2020-21	11496100
3	2021-22	1221200
4	2022-23	277300
5	2023-24	305000
6	2024-25	335600
7	2025-26	369200
8	2026-27	406000
9	2027-28	446600
	TOTAL	18059800
	OR	1,80,60,000

This scheme will be monitored through the machinery of Forest Department at various levels.

4.0 SCHEME COMPONENT:

The area identified for Compensatory Afforestation is undulating with rocky patches and minor streams. It is proposed to take up afforestation under Labour Intensive Method, which coppices of clearance of unwanted growth, heaping the bushes, with Indigenous Secondary hard wood Species and its associates mixed with local NTFP, Ficus species like Ficus religiosa (Ravi), Ficus benghalensis(Marri), Juvvi and Dendrocalamus strictus (Bamboo), and with fuel wood, fodder and locally suitable NTFP species.

Protect the plantation from biotic interference by providing cattle proof trench / chain link mesh fence, watch and ward and from fire by way of control, burning of the fire lines. The plantation would be maintained for (7) years after planting.

4.1 COST STRUCTURE OF PLANTATIONS :

The cost structure of Compensatory Afforestation including the cost structure for various components (AR) of raising and maintenance of planting stock and the plantation is appended (**Appendix-I**).

4.2 PROVISION OF FUNDS :

The funds for the Compensatory Afforestation has to be deposited by the user agency as per the demand notice issued by the FDO Echoda. These funds will be utilized by the Forest Divisional Officer, Echoda for raising nurseries (including purchase of tall plants), plantations and their maintenance as per the detailed annual plan after obtaining the approval and funds from the competent authority.

5.0 PLANTING TARGETS AND STAFF REQUIREMENT :

The planting targets fixed in the area identified (DFL) for the Compensatory Afforestation to an extent of **8.40 Ha.** in Echoda Division is seedlings.

Hence it is proposed to raise the following seedlings for raising and for replacement of casualties in maintenance of plantations.

Requirement of seedlings for CA scheme for Double degraded forest land in Boath Range of Echoda Divison

Sl. No	Range	Double degraded forest land	Area identified in Ha	Area to be afforested through SMM 3m x 3m	Stabilization of CPT through planting.	Total requirement of seedlings
1	2	3	4	5	6	7
1		Compt No. 8	8.400	8.400	1.50 Kms	
			8.400	8.400	1.50 Kms	
Requirement of seedlings for the above area for CA scheme for Double degraded forest land						
Sl. No	Range	degraded forest land	Area proposed in Ha	SMM 3m x 3m (@ 1350 per Ha)	@ 3300 per Km.	
1		Raising year including casualties	8.40	11340	4950	
				11340	4950	
		Add 10 % (Towards damages)		1134	495	
		Total for Raising		12474	5445	
			Or	12500	5500	18000
				(@ 280 Per ha)		
1		Replacement for 1st year	8.400	2352		
		Add 10 % (Towards damages)		235		
				2587		
		Total for maintenance	Or	2600	0	2600

5.1 OFFICE EXPENSES AND CONTINGENCIES RECURRING :

The amount proposed towards office expenses, contingent expenses are appended (Appendix-I & II)

5.2 CAPITAL EXPENDITURE NON – RECURRING

No amount is proposed towards non-recurring expenditure

5.3 SCHEME PERIOD :

This scheme will be implemented over a period of (9) years commencing from 2018-19. The details of cash flow required for the entire project period for recurring and non recurring expenditure is furnished in Appendix-I & II.

5.4 DETAILS OF PROPOSED MONITORING MECHANISM:

The Conservator of Forests, Adilabad Circle, Adilabad shall monitor the implementation of the conditions of Compensatory Afforestation and the survival of the plants planted.

Banab
8/11/2019
Forest Divisional Officer,
Echoda