

## SCHEME PROPOSALS FOR COMPENSATORY AFFORESTATION IN REVENUE LAND IN CHITTOOR WEST DIVISION, ANANTAPURAM CIRCLE

As per section 3.2 and 3.4 of the Forest (Cons.) Act, 1980, it envisages to raise compensatory afforestation over the extent of equal non-forest land. The Superintending Engineer, TGP & GNSS Circle, Irrigation Department, Tirupati has proposed for Sri Balaji Reservoir, Mallemadugu Reservoir and Kailasagiri Canal in Chittoor District under GNSS phase-II. For diversion of 740.855 Ha of Forest Land in Karakambadi RF of WLM Division Tirupati and Adavaram RF, Ramapuram RF & Nagalapuram RFs of Chittoor East(WL) Division for alignment of bund, Foreshore submersion and Canals. As per instructions/ guidelines issued by the Prl. Chief Conservator of Forests (HoFF), Andhra Pradesh for taking CA lands to the Government projects vide PCCFs Rc.No. 45921/01/FCA.4(i), dt.23.08.2014 & 21.3.2016 and on the subject matter vide Rc.No. 2244/2016/FCA-1, dt.10.01.2018 and the deliberations and discussions held with District Collector, Chittoor on 25.06.2018. The field visit was done on 26.08.2018 along with the Joint Collector, Chittoor, Revenue Divisional Officer, Madanapalle and Superintending Engineer, TGP & GNSS Circle, Irrigation department, Tirupati.

The following revenue lands for CA plantations are identified in the five survey numbers of three Revenue Mandals falls under the jurisdiction of Madanapalle Forest Range of Chittoor West Division as detailed below :

Sl. No.	Name of the Range	Mandal	Name of the Revenue Village	Survey No.	Extent in Ha	CA extent in Ha
1	2	3	4	5	6	7
1	Madanapalle	Peddamandyam	Bandrevu	529	170.51	165
2	-do-	-do-	Kalicherla	1	167.16	155
3	-do-	Gurramkonda	Chittiboyana palle	82	117.02	75
4	-do-	-do-	Cherlopalle	259	270.22	205
5	-do-	Nimmanapalle	Reddivaripalle	510	266.97	150
				<b>Total</b>	<b>991.88</b>	<b>750</b>



The area identified at Chittiboyanapalle & Cherlopalle Villages of Gurramkonda (M) are having the tree growth i.e., Pala, Cassia fistula, Neem, Neeruddi etc., and it appears like Reserve Forest only. The area at Reddivaripalle (V) in Nimmanapalle (M) also having the tree growth i.e., Sandra, Pala, Thuniki, Chigara, Juvvi, Manga etc., and it appears like Reserve Forests. Out of 991.88 Ha land identified, only 750 Ha is suitable for CA and it is proposed to raise Plantations with Non-Timber Secondary Hardwoods species under suitable techniques. The District Collector, Chittoor has submitted proposals to the Special Chief Secretary to the Government, Revenue Department, AP Secretariat, Velgapudi, vide Rc.No. REV-3icOGLM(LM)89/2016-JA(3I CELL)-REVCTTR, dt.04.07.2018 requesting permission for advance possession/ transfer to forest department.

The identified Compensatory Afforestation lands are big blocks having natural growth and also adjoining/ continuation to existing Reserved Forest blocks in the Madanapalle Range. The status is as given below;

Sl. No	Name of the Mandal/ Village	Sy. NO.	Surveyed Area		Reference to RF block	Suitable area in Ha
			in Acres	in Ha		
1	Peddamandyam/ Bandrevu	529	421.33	170.51	Separate big block. Nearby RF is T.Sadukonda (C.No.68) at 3 Kms	165
2	Peddamandyam/ Kalicherla	1	413.05	167.16	Abutting to Musalikunta RF Compt.No.69	155
3	Gurramkonda/ Chittiboyana palle	82	289.16	117.02	Abutting to Sangasamudram RF Compt.No.58	75
4	Gurramkonda/ Cherlopalle	259	667.73	270.221	Abutting to Sangasamudram RF Compt.No.58	205
5	Nimmanapalle/ Reddivaripalle	510	659.68	266.97	Separate big block. Nearby RF is Noorukuppalakonda at 1.5 Kms	150
			<b>2450.95</b>	<b>991.88</b>		<b>750.00</b>

Though the areas required for CA scheme is only 750 Ha, due to sheet rock, boulders etc., the department raised to handover the total land of 991.88



Ha in the above five(5) survey numbers and accordingly the District Collector agreed too.

### **Soils :**

The soils are Hard gravelly soils mixed with small size boulders and sheet rock also. Planting with tall seedlings, duly adding sufficient quantity of Tank Silt, F.Y.M and imported soil, with the suitable method for raising plantation. Soil and moisture conservation works are to be constructed in a big way. Fencing is chain link mesh is also proposed in this area addition to the big size periphery trench along the boundary.

The Plan is prepared for raising of Compensatory Afforestation and treatment of existing tree growth in non forest areas over an extent of 992 Ha with financial outlay of Rs.4780 lakhs spreading over a period of 12 years as maintenance up to 10<sup>th</sup> year. The Components / Technique proposed are discussed below;

#### **1) Raising SMM Plantations Technique :**

The technique proposed for Raising Plantation is Semi mechanized method under which deep ploughing over a depth of 30cm will be carried out and planting will be taken up at 3x3 Mt espacement duly pitting 45cm cube pit with 6x12 / 8x12 size bag plants i.e., 1111 Nos of plants per Ha. The main species is Red Sanders, Narepi, Neem, Usiri, & Hardwickia Binata in these plantations. 165 Ha of area is proposed for treatment under this model.

#### **2) Raising LIM Plantations Technique :**

The technique proposed for Raising Non-Timber Secondary Hardwood is Labour intensive method under which planting will be taken up at 4x4 Mt espacement in pits of size 0.75x0.75x0.75 cm with 8"x12" size bag plants i.e., 625 Nos of plants per Ha. The main species is Narepi, Tapasi, Tella Maddi, Neem, Usiri, etc., in these plantations. 250 Ha of area is proposed for treatment under this model.



### **3) Creation/ treatment of exiting tree growth Technique :**

Under this component the existing growth will be treated with tending & singling operations coupled with SMC operations to boost the tree growth. The available gap areas will be planted with Non-Timber Secondary Hardwood species under Gap planting method in Trench cum pit method not exceeding 200 No of plants per Ha. The main species is Narepi, Tapasi, Tella Maddi, etc., in this plantations. 335 Ha of area is proposed for treatment under this model.

**4) Protection:** The balance area of 241.88 or 242 (992-750) Ha having natural tree growth at hill tops will be protected with suitable treatment of singling operations & SMC works.

**5) Raising & Maintenance of Nurseries :** Proposed to raise Primary beds and Polybags with Non-Timber Secondary Hardwoods such as Red Sanders, Hardwickia Binata, Narepi, Tapasi, Usiri, Pongamia, etc., in 8"x12" / 6"x12" bag plants. Tall Plants in woven sacks is also proposed having MPF & Ficus species to supplement in the gaps of areas having good growth.

**Providing Fencing :** The areas will be fenced all along the periphery suitably with Chain link Mesh or digging periphery trench of size (3+2.0)/2x3.00 M for protection from the cattle etc.,

**Procurement and supply of Vehicles:** For inspection of works & monitoring One Scorpio, one Bolero and one Innova is proposed In the scheme. These vehicle will be procured by the User Agency and supplied to the Forest Department.



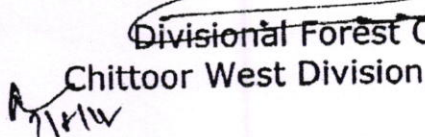
The scheme is spreaded over a period of 13 (3+10) years commencing from 2019-20 to 2031-32 and the details of proposals for CA Plantation is as follows.

(Rs. in Lakhs)

S.No.	Component	Physical area	Financial target
1	Raising Nursery including nursery infrastructure	6.65 lakh nos	231.190
2	Raising SMM plantations	165 Ha	923.292
3	Raising LIM plantations	250 Ha	1271.84
4	Treatment to Natural tree growth & Gap planting	335 Ha	784.757
	<b>Cost of plantation</b>	<b>750 Ha</b>	<b>3211.079</b>
5	SMC works like RFDs, PTs & Check dams	--	524.038
6	Peripheral trench/ Chain link fence & cairns	--	542.03
7	Beneficiary sheds	8 Nos	126.00
8	Monitoring & evaluation charges		93.411
9	Procurement of vehicles for inspecting officers	3 Nos	55.20
10	Administrative cost including Establishment charges		228.18
			4779.938 or
	Total:	750 Ha	4780 lakhs

#### IMPLEMENTING AGENCY:

The A.P. Forest Department will take up the responsibility for implementation of the Compensatory Afforestation scheme with the funds deposited by the user agency and the scheme will be monitored by the Prl. Chief Conservator of Forests(HoFF), Andhra Pradesh, Guntur through its mechanism.

  
Divisional Forest Officer  
Chittoor West Division, Chittoor.



**COMPENSATORY AFFORESTATION SCHEME PROPOSALS FOR BALAJI & MALEMADUGU RESERVOIR IN CHITTOOR WEST DIVISION, ANANTAPURAM CIRCLE**  
**ABSTRACT CUM YEAR WISE ACTION PLAN**

Sl No	Name of the work	Unit	2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		2030-31		2031-32		Total	
			Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	2	2a	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
I	Raising Nursery 6x12																												6.65	127.171
A	Raising of nursery	Per plant	1.50	21.813	2.25	39.591	2	42.582	0.9	23.186																				64.019
B	Maintenance of nursery	Per plant			1.50	10.981	2.25	19.930	2	21.436	0.9	11.672																		40.000
C	Nursery infrasture Development cost	Nos	2	20.000	1	15.000		5.000																						
	Sub Total ::			41.813		65.571		67.512		44.622		11.672		0		0		0		0		0		0		0		0	6.65	231.190
II	Plantations																													
A	Raising of Plantation Under SMM method																													74.960
i	Advance Operation	Ha	25	10.038	70	30.916	70	34.007																					165	162.653
ii	Raising / Creation	Ha			25	21.780	70	67.082	70	73.791																				98.157
iii	1st Year Maintenance	Ha					25	13.144	70	40.482	70	44.531																		107.972
iv	2nd Year Maintenance	Ha							25	14.458	70	44.531	70	48.984																75.772
v	3rd Year Maintenance	Ha									25	10.146	70	31.250	70	34.3754														63.504
vi	4th Year Maintenance	Ha											25	8.50349	70	26.1908	70	28.810												49.844
vii	5th Year Maintenance	Ha												25	6.674	70	20.557	70	22.613											54.829
viii	6th Year Maintenance	Ha														25	7.342	70	22.613	70	24.874									60.311
ix	7th Year Maintenance	Ha																25	8.884	70	27.361	70	27.361							66.342
x	8th Year Maintenance	Ha																		25	9.772	70	30.098	70	30.098					69.967
xi	9th Year Maintenance	Ha																			25	8.884	70	30.098	70	30.098				38.981
xii	10th Year Maintenance	Ha																							25	8.884	70	30.098	165	923.2924
	Sub Total ::			10.038	25	52.696	70	114.233		128.731		99.207		88.7375		67.2405		56.7086		53.301		58.632		64.495		69.079		60.195		



Sl No	Name of the work	Unit	2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		2030-31		2031-32		Total	
			Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	2	2a	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	29	29	30
ii	Raising of Plantation Under LIM method	Ha	50	37.125	100	81.675	100	89.843																						208.643
iii	Advance Operation	Ha																											250	176.805
iv	Raising / Creation	Ha			50	31.460	100	69.212	100	76.133																				
v	1st Year Maintenance	Ha					50	21.962	100	48.315	100	53.147																		
vi	2nd Year Maintenance	Ha							50	15.373	100	33.821	100	37.203																
vii	3rd Year Maintenance	Ha									50	14.495	100	31.888	100	35.0769														
viii	4th Year Maintenance	Ha											50	14.3496	100	31.5692	100	34.726												
ix	5th Year Maintenance	Ha													50	13.349	100	29.367	100	32.304										
x	6th Year Maintenance	Ha															50	14.684	100	32.304	100	35.534								
xi	7th Year Maintenance	Ha																	50	16.152	100	35.534	100	39.088						
xii	8th Year Maintenance	Ha																			50	17.767	100	39.088	100	42.996				
xiii	9th Year Maintenance	Ha																				50	19.544	100	42.996	100	42.996			
xiv	10th Year Maintenance	Ha																						50	17.767	100	42.996			
Sub Total ::				37.125	50	113.135	100	181.016		139.822		101.462		83.4405		79.9948		78.7769		80.76		88.836		97.719		103.76		85.993	250	1271.84
C	Creation/ Treatment to existing tree growth																													
i	Raising / Creation NTSH	Ha	15	24.217	100	76.109	100	83.720	100	92.092																			335	276.137
ii	1st Year Maint. NTSH	Ha			35	6.141	100	19.300	100	21.229	100	23.352																		70.022
iii	2nd Year Maint.	Ha					35	5.916	100	18.594	100	20.453	100	22.499																67.463
iv	3rd Year Maint.	Ha							35	6.508	100	20.453	100	22.499	100	24.749														74.209
v	4th Year Maint.	Ha									35	7.159	100	22.499	100	24.749	100	27.224												81.630
vi	5th Year Maint.	Ha										35	7.875	0	0.000	100	27.224	100	29.946											65.044
vii	6th Year Maint.	Ha											0	35	8.662	0	0.000	100	29.946	100	32.941									71.549
viii	7th Year Maint.	Ha												0	0	0	35	9.528	0	0.000	100	32.941	100	36.235						78.703
Sub Total ::			15	24.217	100	82.250	100	108.936		138.423		71.418		75.3711		58.1595		63.9754		59.892		65.881		36.235		0		0	335	784.7568
Cost on Plantation:			15	113.192	175	313.652	270	471.697	0	451.598	0	283.759	0	247.549	0	205.395	0	199.461	0	193.95	0	213.35	0	198.45	0	172.84	0	146.19	750	3211.079
III	5% Wrkks of 15% of plantation cost			16.979		47.048		70.755		67.740		47.564		37.132		30.809		29.919		29.093										372.036

**REVENUE LANDS PROPOSED FOR COMPENSATORY AFFORESTATION IN MADANAPALLE RANGE (in Ha) IN LIEU OF FOREST LAND DIVERTED FOR BALAJI & MALLEMADUGU RESERVIOR**

Sl. No	Name of the Village	Survey Number.	Name of the Mandal	Range	Surveyed Area		Reference to RF block	Suitable area in Ha	Planting (in Ha.)		Imp. to Natural growth (in Ha)	No. of PT's/ CD's (in Nos)	No. of Boundary pillars (in Nos.)	Length of the PPT (in Kms)/ chainlink mesh
					in Acres	in Ha			SMM plantation	LIM plantation				
1	2	3	4	5	6	6a	7	8	9	10	11	12	13	14
1	Bandrevu	529	Peddamandyam	Madanapalle	421.33	170.51	Separate big block. Near by RF is T.Sadukonda (C.No.68) at 3 Kms	165	40	110	15.00	3	105	10
2	Kalicherla	1	Peddamandyam	Madanapalle	413.05	167.16	Abutting to Musalikunta RF Compt.No.69	155	125	25	5.00	4	100	10
3	Chittiboyana palle	82	Gurramkonda	Madanapalle	289.16	117.02	Abutting to Sangasamudram RF Compt.No.58	75	0	25	50.00	3	90	8
4	Cherlopalle	259	Gurramkonda	Madanapalle	667.73	270.221	Abutting to Sangasamudram RF Compt.No.58	205	0	50	155.00	4	200	12
5	Reddivaripalle	510	Nimmanapalle	Madanapalle	659.68	266.97	Separate big block. Near by RF is Noorukuppalakonda at 1.5 Kms	150	0	40	110.00	6	225	11.5
<b>Total ::</b>					<b>2450.95</b>	<b>991.88</b>		<b>750.00</b>	<b>165</b>	<b>250</b>	<b>335.00</b>	<b>20.00</b>	<b>720.00</b>	<b>51.50</b>

**Note:** Area shown in Natural Growth column is mostly covered with big boulders, hill and sheet rock.

Divisional Forest Officer  
Chittoor West Division  
Chittoor.

Forest Range Officer  
Madanapalle



Sl No	Name of the work	Unit	2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28		2028-29		2029-30		2030-31		2031-32		Total	
			Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	2	2a	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	29	29	30
IV	Demarcation of boundary																													
a	Digging of Peripheral trench along boundary	KM	12	45.000	20	75.000	8	33.000																				40	153.000	
b	Providing Chainlink fence	KM	2.5	52.500	6	135.500	6.5	157.000																				15	345.000	
c	Construction of cairns	Nos	120	7.950	230	18.320	200	17.760																				550	44.030	
V	SMC structure like Check dam & Percolation Tanks	Nos	4	20.000	8	56.000	6	48.000	4	28.000																		22	152.000	
VI	Construction of Beneficiary shed & Seed stores	Nos	2	25.000	3	45.000	3	50.000		6.000																		8	126.000	
VII	Monitoring & Evaluation charges @3% of plantation cost			5.660		9.410		14.151		13.548		8.513		7.426		6.162		5.984		5.819		6.400		5.953		5.185		4.386		93.411
VIII	Procurement and supply of vehicles i.e., one scorio, One Bolero & One Innova	Nos		55.200																									55.200	
VIII	Administrative Cost including 2 FSO & 3 FBO salary for 7 years			13.590		28.233		37.738		45.165		31.214		29.706		22.593		19.946												228.180
Sub Total ::				241.878		414.478		428.403		160.452		82.290		74.265		59.564		55.849		34.912		6.400		5.953		5.185		4.386		1568.859
Grand Total ::			35	355.070	175	728.130	270	900.100	0	612.050	366.050	321.814	264.959	255.310	228.86	219.75	204.40	178.02	150.57	240	4779.938	or 4780 lakhs								

  
 Forest Range Officer  
 Madanapalle  
 Divisional Forest Officer,  
 Chittoor West Division, Chittoor.  
 7/7/18