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Compensatory Afforestation Scheme for Diversion of 12.684 Ha Forest Land in Bhadrachalam Forest Division for formation of road from R.Kothagudem to Kurnapally from Km 0/0 to 11/600 in erstwhile Khammam District in favour of SE,R&B Circle, Khammam in Non-forest CA lands and degraded forest lands

A. Non-forest CA lands (NFL):

1. Introduction:

It is submitted that the Principal Chief Conservator of Forests, TS, Hyderabad vide his Rc.No.12376/2016-FCA2, Dt:01-09-2017 has issued instructions to submit the CA Scheme for Formation of Road from R.Kothagudem to Kurnapalli Road from KM 0/0 to 11/600. The details are as follows.

Sl. No.	Name of the Work	Area to be diverted in Ha.
1	Formation of Road from R.Kothagudem to Kurnapalli Road from KM 0/0 to 11/600 erstwhile Khammam District	12.684

It is further submitted that the Non-Forest land has been handed over by the User Agency to an extent of 12.684 Ha in Sy.Nos.350/1 of Dammapeta Mandal and 227 of Aswaraopeta Mandal of erstwhile Khammam district. After re-organization of the Districts and Divisions, the Non-Forest land which was handed over by the User Agency falls under the jurisdiction of Paloncha Division of Bhadrachalam District. The details are as follows.

Sl. No	Name of the Range	Name of the Mandal	Name of the Village	Sy.No.	Non-Forest land handed over by the User Agency	
					Ext. in Acres	Extent in Ha
1.	Dammapeta	Dammapeta	Ankorpalem	350/1	27.00	10.931
2.	Aswaraopeta	Aswaraopeta	Asupaka	227	4.33	1.753
			Total:		31.33	12.684

The above Non forest land to an extent of 12.684 Ha is hillock and covered with good vegetation and not to take up any plantations in the said area. Keeping in view the nature of the Non- forest land it is proposed to take up operations like singling, coppicing and bush clearance along with SMC works. Hence CA scheme is prepared to an amount of Rs. **34.76875** Lakhs to deal these Non-forest CA areas. As the areas are isolated with a small patches, with lot of biotic pressure from adjoining villages and there is every possibility of encroachment of this land for agriculture or for quarry or for any. Hence suitable protection measures are needed from biotic pressure and encroachment. Hence chain link fence is proposed all around the boundary of the CA area.

Hence chain link fence is proposed all around the boundary of the CA area. The details are as follows.

1. THE SCHEME - TREATMENT MODELS AND OPERATIONS PROPOSED:

Soil and moisture conservation works: It is proposed to carry out SMC works like Digging of SCT, Percolation tank etc in the CA areas.

Protection of CA land: Erection of Chain link fencing around the CA area with gate is proposed. The boundary pillars are also proposed around the CA land to facilitate notification of CA lands as PF/RF.

Administrative Costs (Over Heads): As the work involves lot of record maintenance, book keeping and mobility of the field officers it is required to provide 10% of treatment cost (nursery raising, plantations raising and SMC works) towards over heads and monitoring of implementation of the Scheme.

PROJECT COST: The total financial out lay of the project is **Rs.34.76875 Lakhs.**

The annual requirement of funds have been worked out on the base cost of 2017-18 FSR with 10% annual escalation for the remaining project period up to 2030-31.

The component wise details in brief are as follows.

S. No	Scheme Proposals	Cost in Lakhs
1	Singling, Coppicing, Bush cleaning	0.30250
2	Construction of boundary Pillars	1.120
3	Construction of small pillars at 20 Mtr interval along the periphery	0.816
4	Erection of gates	1.000
5	Erection of chain link fencing	31.50
7	Administrative cost 10% over Core activities	0.03025
	Total:	34.76875

B. Degraded forest lands (DFL) for CA:

1. Introduction:

In addition to that the equivalent degraded Forest land to an extent of 13.00 Ha has been identified by the Forest Range Officer, Aswaraopeta to meet the requirement of planting 1000 plants/ ha of forest land diverted for the Project

The details of areas identified for DFL CA with < 0.4 density are as follows.

Sl. No	Name of the Range	RF	Section	Beat	Compt. No.	Extent in Ha
1	Aswaraopeta	Aswaraopeta Extn-I	Aswaraopeta	Papidigudem	292	13.00

2. THE SCHEME - TREATMENT MODELS AND OPERATIONS PROPOSED:

Plantations: It is proposed to take up compensatory afforestation of **NON TEAK SECONDARY HARDWOOD SPECIES (NTSH)** through Semi-mechanical method, with CPT along the periphery of the DFL CA area.

The above Afforestation and Reforestation works shall be carried out either by involvement of VSS members wherever possible or through Departmental execution.

The operations to be carried out are Survey and demarcation, clearance of existing unwanted growth, uprootal, burning, ploughing, inter-ploughing, scoping of 60 cm cube pits, importing of soil, and planting at 3 x 3 m espacement with 10 years of maintenance etc. Watering of plants is provided for raising year.

Soil and moisture conservation works: It is proposed to carry out SMC works like Digging of SCT, Constructions of Check Dam, Percolation tank etc in the CA areas.

Administrative Costs (Over Heads): As the work involves lot of record maintenance, book keeping and mobility of the field officers it is required to provide 10% of treatment cost (nursery raising, plantations raising and SMC works) towards over heads and monitoring of implementation of the Scheme.

PROJECT COST: The total financial out lay of the project is **Rs.79.14685 Lakhs.**

Nursery raising and maintenance is proposed in 2018-19 & 2019-20, Advance operations 2019-20 and raising of plantation starts from 2020-21. The annual requirement of funds have been worked out on the base cost of 2017-18 FSR with 10% annual escalation for the remaining project period up to 2030-31.

The component wise details in brief are as follows.

S. No	Scheme Proposals	Cost in Lakhs
1	Raising of Plants in Nurseries & their Maintenance	6.59229
2	Raising of plantations with 10 years of maintenance	62.92729
3	SMC Works	2.43210
4	Administrative Cost - 10%	7.19517
	Total:	79.14685

Mode of Execution:

It is proposed to implement the above proposals through VSS on Joint Forest Management concept wherever possible or by Departmental execution method. In addition to the existing staff of Forest Department with required logistic support, necessary manpower required for effective implementation of the project will be hired through outsourcing from the administrative cost.

Annexures:

Annexure IV	Abstract of Compensatory Afforestation Scheme on DFL
Annexure V	Year wise Estimated cost Compensatory Afforestation
Annexure VI	Unit cost Data sheets


 Forest Divisional Officer
 Paloncha


 DISTRICT FOREST OFFICER
 Bhadradi Kothagudem Dist
 Kothagudem
 22.12.2017


 Chief Conservator of Forests /
 Conservator of Forests
 KOTHAGUDEM CIRCLE

YEAR WISE DETAILED ABSTARCT OF CA SCHEME over 12.684 Ha of Non-Forest Land - formation of road from R.Kothagudem to Kurnapally of Paloncha Division

Sl. No	Item of Work	Unit	Unit Cost (Rs.) for 2017-18	2018 - 19			2019 - 20			2020 - 21			2021 - 22			2022 - 23			2023 - 24			2024 - 25			2025 - 26			2026 - 27			2027 - 28			2028 - 29			2029 - 30			2030 - 31			Grand Total		
				Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Fin (Rs.in Lakhs)				
1	2	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	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
1	Tending operations in 75 ha																																												
1	Singling, Coppicing, Bush cleaning	Ha	5500				5	6050	0.303	0	6655	0.000	0	7321	0.000																												5	0.30250	
	TendingTotal					0.000			0.303			0.000			0.000			0			0			0		0.000			0.000		0.000			0			0			0			0		0.30250
1	Forest Protection																																												
1	Construction of boundary pillars	No's	8000	0	8000	0.000	14	8000	1.120	0	8000	0.000																															14	1.120	
2	Construction of boundary pillars - Intermediate	No's	800	0	800	0.000	102	800	0.816	0	800	0.000																															102	0.816	
3	Construction of Gates	No's	100000	0	100000	0.000	1	100000	1.000	0	100000	0.000																															1	1.000	
4	Fencing - km	km	1500000	0	1500000	0.000	2.1	1500000	31.500	0	1500000	0.000																															2.10	31.500	
	Protection Total					0.000			34.436			0.000			0			0			0			0		0			0		0			0			0			0			0		34.4360
3	SMC Works																																												
	SMCTotal					0			0			0		0		0		0		0		0		0		0		0		0		0			0			0			0			0.000	
4	Administrative cost 10% over Core activities					0			0.030			0.000		0.000		0		0		0		0		0		0		0		0			0			0			0			0		0.03025	
	Total year wise outlay of the project					0.000			34.7688			0.0000		0.0000		0		0		0		0		0		0		0		0			0			0			0			0		34.76875	

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Chief Conservator of Forests
Conservator of Forests
KOTHAGUDEM CIRCLE

DISTRICT FOREST OFFICER
Bhadradi Kothagudem Dist
Kothagudem.
22.12.2017

Forest Divisional Officer
Paloncha

Year-wise detailed Abstract of CA Scheme for 13.00 Ha in Degraded Forest Land for of Paloncha Division

Sl. No	Item of Work	Phy	Unit Cost 2017-18 (Rs.)	2018 - 19			2019 - 20			2020 - 21			2021 - 22			2022 - 23			2023 - 24			2024 - 25		
				Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
I	Raising of Plants in Nurseries & their Maintenance, Procurement of Plants																							
1	Raising of Primary beds - Unit cost for 100000 plants	Plant	0.2491	23150	0.27403	0.06344	0	0.30143	0															
2	Raising of Bag Plants of 5"x9" - Unit Cost 100000 plants	Plant	4.7932	23150	5.27253	1.22059	0	5.79978	0															
3	Maintenance of Bag Plants of 5"x9" - Unit Cost for 100000 plants	Plant	1.6559				23150	2.00364	0.46384	0	2.20400	0	0	2.4244	0									
4	Conversion of bag plants from 5"x9" to 8"x12" - Unit Cost 100000 plants	Plant	13.9689				23150	16.90239	3.91290	0	18.59263	0	0	20.45190	0									
5	Maintenance of Bag Plants of 8"x12" - Unit Cost for 100000 plants	Plant	3.0232							23150	4.02383	0.93152	0	4.42621	0	0	4.86883	0						
						1.284			4.377			0.932			0.000			0.000			0.000			0.000
II	Planting activities (SMM)																							
6	Advance Operations	Ha	39865				13.00	48237	6.27076	0.00	53060	0.00000												
7	Raising of Plantation	Ha	177211							13.00	235867	30.66273	0.00	259454	0.00000									
8	1st Year Maintenance	Ha	45647										13.00	66832	8.68814	0.00	73515.03	0.00000						
9	2nd Year Maintenance	Ha	23187													13.00	37342.90	4.85458	0.00	41077.18	0.00000			
10	3rd Year Maintenance	Ha	16265																13.00	28814.19	3.74585	0.00	31695.61	0.00000
11	4th Year Maintenance	Ha	16265																			13.00	31695.61	4.12043
12	5th Year Maintenance	Ha	2385																					
13	6th Year Maintenance	Ha	1903																					
14	7th Year Maintenance	Ha	2385																					
15	8th Year Maintenance	Ha	1903																					
16	9th Year Maintenance	Ha	2385																					
17	10th Year Maintenance	Ha	1903																					
	Sub Total:					0.00000			6.27076			30.66273			8.68814			4.85458			3.74585			4.12043
III	SMC Works																							
18	Digging of CPT in km	km	140000		154000.00		1.2	169400	2.0328	0	186340.00	0												
19	Bund plantation in km	km	25000		27500.00		0	30250	0	1.2	33275.00	0.399												
20	Construction of Percolation Tanks	No	350000		385000.00		0	423500	0	0	465850.00	0												
21	Construction of Mini Percolation Tanks	No	100000		110000.00		0	121000	0	0	133100.00	0												
22	Checkdams	No	750000		825000.00		0	907500	0	0	998250.00	0	0	1098075	0									
23	Desilting of old percolatin tanks	No	300000		330000.00		0	363000	0	0	399300.00	0	0	439230	0									
24	Staggered trenches(0.45*0.45*1500 RMT/Ha	Cmt			200.00		0	220	0	0	242.00	0	0											
25	Digging of borewell with solar panels	No	700000		770000.00		0	847000	0	0	931700.00	0	0	1024870	0									
	Sub Total					0.00000			2.0328			0.399			0.00000			0.00000			0.00000			0.00000
IV	Administrative Cost - 10%																							
	Total year wise outlay of the project					1.4124			13.9483			35.1929			9.5570			5.3400			4.1204			4.5325

Sl. No	Item of Work	Phy	Unit Cost 2017-18 (Rs.)	2025 - 26			2026 - 27			2027 - 28			2028 - 29			2029 - 30			2030 - 31			2031 - 32			Grand Total	
				Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Unit Cost (Rs.)	Fin (Rs.in Lakhs)	Phy	Fin (Rs.in Lakhs)
1	2	3	4	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
I	Raising of Plants in Nurseries & their Maintainanc																									
1	Raising of Primary beds - Unit cost for 100000 plants	Plant	0.2491																						23150	0.0634
2	Raising of Bag Plants of 5"x9" - Unit Cost 100000 plants	Plant	4.7932																						23150	1.2206
3	Maintenance of Bag Plants of 5"x9" - Unit Cost for 100000 plants	Plant	1.6559																						23150	0.4638
4	Conversion of bag plants from 5"x9" to 8"x12" - Unit Cost 100000 plants	Plant	13.9689																						23150	3.9129
5	Maintenance of Bag Plants of 8"x12" - Unit Cost for 100000 plants	Plant	3.0232																						23150	0.9315
						0.000			0.000			0.000			0.000			0.000			0.000			0.000		6.59229
II	Planting activities (SMM)																									
6	Advance Operations	Ha	39865																						13	6.2708
7	Raising of Plantation	Ha	177211																						13	30.6627
8	1st Year Maintenance	Ha	45647																						13	8.6881
9	2nd Year Maintenance	Ha	23187																						13	4.8546
10	3rd Year Maintenance	Ha	16265																						13	3.7458
11	4th Year Maintenance	Ha	16265	0.00	34865.17	0.00000																			13	4.1204
12	5th Year Maintenance	Ha	2385	13.00	5112.16	0.66458	0.00	5623.38	0.00000																13	0.6646
13	6th Year Maintenance	Ha	1903				13.00	4486.85	0.58329	0.00	4935.53	0.00000													13	0.5833
14	7th Year Maintenance	Ha	2385							13.00	6185.71	0.80414	0.00	6804.29	0.00000										13	0.8041
15	8th Year Maintenance	Ha	1903										13.00	5429.08	0.70578	0.00	5971.99	0.00000							13	0.7058
16	9th Year Maintenance	Ha	2385													13.00	7484.71	0.97301	0.00	8233.19	0.00000				13	0.9730
17	10th Year Maintenance	Ha	1903																13.00	6569.19	0.85399	0.00	7226.11	0.00000	13	0.8540
	Sub Total:					0.66458			0.58329			0.80414			0.70578			0.97301			0.85399			0.00000		62.92729
III	SMC Works																									
18	Digging of CPT in km	km	140000																						1	2.0328
19	Bund plantation in km	km	25000																						1	0.3993
20	Construction of Percolation Tanks	No	350000																						0	0
21	Construction of Mini Percolation Tanks	No	100000																						0	0
22	Checkdams	No	750000																						0	0
23	Desilting of old percolatin tanks	No	300000																						0	0
24	Staggered trenches(0.45*0.45*1500 RMT/Ha	Cmt																							0	0
25	Digging of borewell with solar panels	No	700000																						0	0
	Sub Total:					0.00000			0.00000			0.00000			0.00000			0.00000			0.00000			0.00000		2.43210
IV	Administrative Cost - 10%																									
						0.0665			0.0583			0.0804			0.0706			0.0973			0.0854			0.0000		7.19517
	Total year wise outlay of the project					0.7310			0.6416			0.8846			0.7764			1.0703			0.9394			0.0000		79.14685

Chief Conservator of Forests /
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KOTHAGUDEM CIRCLE

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