

Compensatory Afforestation Scheme in Degraded forest land 907 Ha in Kothagudem Division in lieu of diversion of 649.3014 Ha of Forest land for Venkatesh Khani Coal mine from underground rights to Surface rights in Ramavaram RF of Kothagudem Division in favour of M/s Singareni Collieries Company Limited, Kothagudem

I. Introduction :

The Prl. Chief Conservator of Forests, T.S., Hyderabad in reference No. 10066/2019/FCA-1/PS, dt: 11.10.2019 while enclosing the proposals received from the M/s. Singareni Collieries Company Limited for Diversion of 649.3014 Ha (Reduced from 713.274 to 649.3014 Ha) Forest land in Ramavaram R.F of Ramavaram Range of Kothagudem Division in favour of S.C.Co.Ltd., Kothagudem and issued instructions to process the proposals as per Forest (Conservation) Act 1980. Further, the Prl. Chief Conservator of Forests, T.S., Hyderabad has instructed to prepare CA Scheme in double degraded forest area (less than 0.4 density) with 7-10 years maintenance. The User Agency requested the Department to identify double the extent of forest land diverted for CA purpose.

(a) Total Area diverted is 649.3014 Ha

Sl. No.	Division	Range	Section	Beat	RF	Compt. No.	Area in Ha
1	Kothagudem	Ramavaram	Ramavaram	Ramavaram	Ramavaram	2	5.9283
2	Kothagudem	Ramavaram	Ramavaram	Ramavaram	Ramavaram	3	144.622
3	Kothagudem	Ramavaram	Ramavaram	Penuballi	Ramavaram	4	347.8216
4	Kothagudem	Ramavaram	Penagadapa	Musalivarre (E)	Ramavaram	5	95.0551
5	Kothagudem	Ramavaram	Ramavaram	Gareebpeta	Ramavaram	11	55.8744
						Total::	649.3014

(b) Double the area identified is 1299.00 Ha

Sl. No.	District	Division	Area in Ha	Remarks
1.	Bhadradi Kothagudem	Kothagudem	907.00	
2.	-do-	WLM, Kinnerasani	392.00	
			Total::	1299.00

II. Identification of degraded area:

The Forest Range Officers, Kothagudem, Ramavaram, Tekullapally and Chandrugonda to whom the matter was referred for identification of degraded forest area in lieu of diversion of forest land of 649.3014 Ha for the above mentioned project, has identified degraded forest land of 907.00 Ha in Kothagudem Division are shown below. The surveyed sketch of the degraded forest area and location on Toposheet 1:50000 are enclosed to the scheme proposals. The area details are shown below.

Sl. No	Division	Range	Section	Beat	RF	Compt. No.	Area in Ha
1	Kothagudem	Kothagudem	Medlamadugu	Kunaram	Chatakonda	4	54.00
2	Kothagudem	Ramavaram	Abbugudem	Marrigudem	Penagadapa	38	117.00

3	Kothagudem	Tekulapally	Muralipadu	Barlagudem	Chatakonda	28	55.00
4	Kothagudem	Chandrugonda	Maddukuu	Maddukuru East	Lankapally	148/2	100.00
5	Kothagudem	Chandrugonda	Maddukuu	Burugudem	Lankapally	96/1	50.00
6	Kothagudem	Chandrugonda	Annapureddypally	Annapureddypally	Annapureddypally	128	51.00
7	Kothagudem	Chandrugonda	Ravikampadu	Pokalagudem	Annapureddypally	90	223.00
8	Kothagudem	Chandrugonda	Ravikampadu	Pokalagudem	Annapureddypally	91	130.00
9	Kothagudem	Chandrugonda	Ravikampadu	Pokalagudem	Annapureddypally	92	127.00
TOTAL							907.00

III. Planting Techniques

It is proposed to raise Miscellaneous Plantation by adopting artificial regeneration under Semi-Mechanical Method in the said degraded forest areas. The said areas with red loam soil and sandy soil which are suitable for planting for raising Miscellaneous plantation as per the guidelines issued by Prl. Chief Conservator of Forests in Rc.No.43246/2012/CAMPA, dt.29.11.2012. It is noticed that the afforestation will prevent the attempt of encroachment besides cover the forest land with good tree growth.

IV. Activities proposed in Artificial Regeneration under Semi-Mechanical Method in Degraded forest of 907.00 Ha

1. Raising of misc. nursery:

The seedlings suitable such as for soil with two years old are to be raised in the nursery for planting during 2023-24.

2. Taking up advance operations:

The advance works under Semi-Mechanical Method includes clearance of misc. growth, uprootal of stumps, tilling and heaping and burning.

3. Raising of plantations:

The esplacement proposed is 3 M x 3 M - 1111 plants/ Ha. The activities including ploughing, alignment, Scoping and Planting in 45 Cms. Cub pits, with misc. species under the direct supervision of the Forest Range Officer concerned. One circular weeding, Circular weeding, deep soil working, one critical watering, Application of fertilizers, inter-ploughing, protection watcher, digging of cattle proof trench top width 1.5M, bottom width 1 M and height 1M @ 125 Cmt. per Ha.

a. Maintenance of plantations

Maintenance of plantations was taken up to 10 years as per calendar operations.

5. **Planting targets proposed.**

2021-22 – Raising of 4x7 Bag Nurseries

2022-23 – Advance Operations & Maintenance of Nurseries

2023-24 – Raising of Plantation

2024-25 to 2034-35 – Maintenance of Plantations

V. **Project period**

It is proposed to implement the scheme from 2021-22 to 2034-35 for a period of (14) years.

VI. **Project Implementation Agency**

The Forest Divisional Officer, Kothagudem will be the Project Implementation Agency and work will be taken through the Forest Range Officers, Kothagudem, Ramavaram, Tekulapally and Chandrugonda. The raising of Compensatory Afforestation Plantation requires additional manpower and mobility. Hence, it is proposed to hire services of one forester in Ramavaram Range, one Data Entry Operator for initial (3) years in Division office, accordingly, necessary provisions are made in the Scheme proposals under Administrative Cost - 10% of the Scheme Value.

VII. **Cost structure**

Basic rates proposed as per FSR 2020-21 and 10% price escalation is proposed every year on the basic rate of FSR 2020-21. Nursery for all required seedlings will be raised at one central place and accordingly required infrastructure is proposed in the scheme. The details of year-wise physical and financial target are enclosed in Annexure No. I. Unit cost of different planting techniques and plantation operations are shown in separate sheets and are enclosed.

VIII. **Cost of the (Scheme) Project**

Total cost of the project is Rs. **5369.137** lakhs. The details are shown in Annexure 1.

S. No	Scheme Proposals	Cost in Lakhs
1	Raising and Maintenance of Nurseries	695.257
2	Upgrade the infrastructure of nurseries for rainy (2) years old tall plants	46.500
3	Advance operations	594.802
4	Raising of plantations	1115.152
5	1 st year maintenance of Plantations	451.334
6	2 nd year maintenance of Plantations	357.988
7	3 rd year maintenance of Plantations	228.306
8	4 th year maintenance of Plantations	251.136
9	5 th year maintenance of Plantations	185.149
10	6 th year maintenance of Plantations	38.570

11	7 th year maintenance of Plantations	224.030
12	8 th year maintenance of Plantations	46.669
13	9 th year maintenance of Plantations	271.077
14	10 th year maintenance of Plantations	56.469
15	SMC Works	172.800
16	Habitat Improvement works	82.749
17	Provision of Monitoring facility for effecting implementation of afforestation	64.000
18	Rehabitation of Wildlife from Diverted area	10.000
19	Administrative Cost	477.149
	Total Cost of the Project:	5369.137

IX. Employment Generation

The degraded forest land proposed for Compensatory Afforestation is located in Kothagudem and Chandrugonda Mandal in Agency Area. The local labour mostly Tribals along with Scheduled Castes will be benefitted by implementation of this project for their daily livelihood, generation expected to be created is 4,90,332 man days during the project period from 2021-22 to 2034-35 (60% manual component wage rate during 2019-20 on Rs. 657/- per day.

X. Annexures:

Annexure I	Year wise Estimated cost Compensatory Afforestation
Annexure II	Unit cost Data sheets

Further, it is mentioned that in case the selected locations and the areas are unavailable for taking up planting anticipating the delay of approval of the proposal, suitable degraded areas will be selected and planting will be taken up and accordingly the deviation, in any in implementing the scheme will be borne by the User Agency in the jurisdiction of Kothagudem Division. Similarly, it is also mentioned that the User Agency will be remitting the equal amount into CAMPA Account, in case the degraded forest lands were taken up for re-afforestation with any funding agency since Kothagudem Forest Division has been taking up re-afforestation in the retrieved areas of forest lands, where encroachment problem is severe. To curb the encroachment problem and re-afforestation the gap areas this modification is proposed.


Forest Divisional Officer,
Kothagudem

Compensatory afforestation scheme for 907 ha over Degraded Forest Land in Kothagudem Division in lieu of diversion of 649.3014 ha under F©Act,1980 for Venkatesh Khani Coal Mine in favour of M/s Singareni Collieries Company Limited, Kothagudem

Sl. No	Item of Work	Phy	Unit Cost 20-21 (Rs.)	2021 - 22			2022 - 23			2023 - 24			2024 - 25			2025 - 26			2026 - 27			2027 - 28		
				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)
I	Raising of Plants in Nurseries & their Maintenance, Procurement of Plants																							
1	Raising of Primary beds	Plant	0.4116	900000	0.453	4.075	800000	0.498	3.984	0	0.548	0.000												
2	Raising of Bag Plants of 4"x7"	Plant	2.9644	900000	3.261	29.348	800000	3.587	28.696	0	3.946	0.000												
3	Maintenance of Bag Plants of 4"x7"	Plant	1.1150				900000	1.349	12.143	800000	1.484	11.873	0	1.633	0.000									
4	Conversion of bag plants from 4"x7" to 9"x11"	Plant	17.3833				900000	21.034	189.304	800000	23.137	185.097	0	25.451	0.000									
5	Maintenance of Bag Plants of 9"x11"	Plant	9.7391							900000	12.963	116.665	800000	14.259	114.073	0	15.685	0.000						
	Sub Total:					33.423			234.127			313.635			114.073			0.000			0.000			0.000
II	Upgrade the infrastructure of nurseries for rainy (2) years old tall plants																							
6	Construction of over head water tank could raise of conversion of seedlings in (3) different locations with pipe lines keeping in view of the labour circular	Nos		2	800000	16.000	1	800000	8.000															
7	Storage sheds for polybags, seeds, equipments etc.,	Nos		2	600000	12.000	1	600000	6.000															
8	Design platform for seed design	Nos		2	150000	3.000	1	150000	1.500															
	Sub Total:					31.000			15.500			0.000			0.000			0.000			0.000			0.000
III	Planting activities (SMM) in DFL																							
9	Advance Operations	Ha	51870				500.00	62763	313.814	407.00	69039	280.989												
10	Raising of Plantation	Ha	88407							500.00	117669	588.346	407.00	129436	526.805									
11	1st Year Maintenance	Ha	32528										500.00	47624	238.121	407.00	52387	213.213						
12	2nd Year Maintenance	Ha	23455													500.00	37774	188.872	407.00	41552	169.116	407.00	26500	107.853
13	3rd Year Maintenance	Ha	13598																500.00	24090	120.452	500.00	26500	132.498
14	4th Year Maintenance	Ha	13598																					
15	5th Year Maintenance	Ha	9114																					
16	6th Year Maintenance	Ha	1726																					
17	7th Year Maintenance	Ha	9114																					
18	8th Year Maintenance	Ha	1726																					
19	9th Year Maintenance	Ha	9114																					
20	10th Year Maintenance	Ha	1726																					
	Sub Total:					0.000			313.814			869.335			764.926			402.085			289.568			240.351
IV	SMC Works																							
21	Digging of CPT in km around DFL plantation	km	154000	25	169400	42.350	25	186340	46.585															
22	Bund plantation in km	km	33000				25	39930	9.983	25	43923	10.981												
22	Construction of Percolation Tanks in CA-DFL and within vicinity of CA-DFL	No's	220000		242000		4	266200	10.648	0	292820	0.000	0	322102	0.000									
23	Construction of Mini PTs in CA-DFL within vicinity of CA-DFL	No's	82500		90750	0.000	4	99825	3.993	4	109808	4.392	0	120788	0.000									
23	Construction of RFDs	Cum	1000		1100		1200	1210	14.520															
24	Staggered trenches in DFL CA within vicinity of CA-DFL	Cmt	231		254		5000	280	13.976	5000	307	15.373	0	338	0.000									
	Sub Total:					42.350			99.704			30.746			0.000			0.000			0.000			0.000
V	Habitat Improvement works																							
25	Removal of obnoxious weed in the RF within the vicinity of CA-DFL	ha	8756				100	10595	10.595	100	11654	11.654												
26	Digging of bore wells, fixing solar operated pump sets and construction of MPTs	No's	500000				10	605000	60.500															
	Sub Total:					0.000			71.095			11.654			0.000			0.000			0.000			0.000
VI	Provision of Monitoring facility for effecting implementation of afforestation																							
27	Construction of biodiversity monitoring centre	Nos		1	2000000	20.000																		
28	Improve the camping facility for wild life experts in Kothagudem with solar power	Nos	1000000	2	1000000	20.000																		
28	Purchase of office equipments of for monitoring project for senior officers, FRO's & office staff	Ls		Ls	600000	6.000																		
29	Improvement of mobility by Purchasing of vehicle for monitoring	Nos		1	1800000	18.000																		
	Sub Total:					64.000			0.000			0.000			0.000			0.000			0.000			0.000
VII	Rehabilitation of Wildlife from Diverted area																							
30	Hiring of Biodiversity expert to document and translocate pythons, mouse deer, Civet cats, Jungle cats and other wildlife while felling trees on diverted land	LS	1000000	1	1000000	10.000																		
	Sub Total:					10.000			0.000			0.000			0.000			0.000			0.000			0.000
VIII	Administrative Cost - 10%					7.577			71.874			122.537			87.900			40.208			28.957			24.035
	Total year wise outlay of the project					188.350			806.113			1347.908			966.898			442.293			318.525			264.386

Compensatory afforestation scheme f

Sl. No	Item of Work	Phy	Unit Cost 20-21 (Rs.)	2028 - 29			2029 - 30			2030 - 31			2031- 32			2032- 33			2033- 34			2034-35			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 Maintenance, Procurement																									
1	Raising of Primary beds	Plant	0.4116																							
2	Raising of Bag Plants of 4"x7"	Plant	2.9644																						1700000	8.05860
3	Maintenance of Bag Plants of 4"x7"	Plant	1.1150																						1700000	58.04386
4	Conversion of bag plants from 4"x7" to 9"x11"	Plant	17.3833																						1700000	24.01578
5	Maintenance of Bag Plants of 9"x11"	Plant	9.7391																						1700000	374.40096
	Sub Total:					0.000			0.000			0.000			0.000			0.000			0.000			0.000	1700000	230.73770
II	Upgrade the infrastructure of nurseries for rainy (2) years old tal																									
6	Construction of over head water tank could raise of conversion of seedlings in (3) different locations with pipe lines keeping in view of the labour circular	Nos																							3	24.00000
7	Storage sheds for polybags, seeds, equipments etc.,	Nos																							3	18.00000
8	Design platform for seed design	Nos																							3	4.50000
	Sub Total:					0.000			0.000			0.000			0.000			0.000			0.000			0.000	3	46.50000
III	Planting activities (SMM) in DFL																									
9	Advance Operations	Ha	51870																						907.00	594.80211
10	Raising of Plantation	Ha	88407																						907.00	1115.15190
11	1st Year Maintenance	Ha	32528																						907.00	451.33372
12	2nd Year Maintenance	Ha	23455																						907.00	357.98768
13	3rd Year Maintenance	Ha	13598																						907.00	228.30560
14	4th Year Maintenance	Ha	13598	407.00	29149	118.638																			907.00	251.13616
15	5th Year Maintenance	Ha	9114	500.00	19537	97.683	407.00	21490	87.466																907.00	185.14901
16	6th Year Maintenance	Ha	1726				500.00	4070	20.349	407.00	4477	18.221													907.00	38.56966
17	7th Year Maintenance	Ha	9114							500.00	23639	118.197	407.00	26003	105.833										907.00	224.03030
18	8th Year Maintenance	Ha	1726										500.00	4924	24.622	407.00	5417	22.047							907.00	46.66929
19	9th Year Maintenance	Ha	9114													500.00	28604	143.018	407.00	31464	128.058				907.00	271.07666
20	10th Year Maintenance	Ha	1726																500.00	5959	29.793	407.00	6554	26.677	907.00	56.46984
	Sub Total:					216.322			107.815			136.417			130.456			165.065			157.852			26.677		3820.68192
IV	SMC Works																									
21	Digging of CPT in km around DFL plantation	km	154000																						50.00	88.93500
22	Bund plantation in km	km	33000																						50.00	20.96325
22	Construction of Percolation Tanks in CA-DFL and within vicinity of CA-DFL	No's	220000																						4	10.64800
23	Construction of Mini PTs in CA-DFL within vicinity of CA-DFL	No's	82500																						8	8.38530
23	Construction of RFDs	Cum	1000																						1200	14.52000
24	Staggered trenches in DFL CA within vicinity of CA-DFL	Cmt	231																						10000	29.34855
	Sub Total:					0.000			0.000			0.000			0.000			0.000			0.000			0.000		172.800
V	Habitat Improvement works																									
25	Removal of obnoxious weed in the RF within the vicinity of CA-DFL	ha	8756																						200.00	22.24900
26	Digging of bore wells, fixing solar operated pump sets and construction of MPTs	No's	500000																						10.00	60.50000
	Sub Total:					0.000			0.000			0.000			0.000			0.000			0.000			0.000		64.00000
VI	Provision of Monitoring facility for effecting implementation of a																									
27	Construction of biodiversity monitoring centre	Nos																							1	20.00000
28	Improve the camping facility for wild life experts in Kothagudem with solar power	Nos	1000000																						2	20.00000
28	Purchase of office equipments of for monitoring project for senior officers, FRO's & office staff	Ls																							Ls	6.00000
29	Improvement of mobility by Purchasing of vehicle for monitoring	Nos																							1	18.00000
	Sub Total:					0.000			0.000			0.000			0.000			0.000			0.000			0.000		64.00000
VII	Rehabilitation of Wildlife from Diverted area																									
30	Hiring of Biodiversity expert to document and translocate pythons, mouse deer, Civet cats, Jungle cats and other wildlife while felling trees on diverted land	LS	1000000																						1.00	10.00000
	Sub Total:					0.000			0.000			0.000			0.000			0.000			0.000			0.000		10.00000
VIII	Administrative Cost - 10%																									
	Total year wise outlay of the project					21.632			10.781			13.642			13.046			16.507			15.785			2.668		477.14879
						237.954			118.596			150.059			143.501			181.572			173.637			29.344		5369.13672