SCHEME FOR COMPENSATORY AFFORESTATION

Detailed scheme for compensatory afforestation to be carried out in lieu of diversion of 2.76 ha of forest land in Kallapadi Reserved Forest in Gudiyatham Range of Vellore Forest Division in Vellore District.

1. Details of degraded forest land:

District : Vellore

Tehsil : Gudiyatham

Name of the Forest Division : Vellore Forest Division

Name of R.F : Veerichettipalli Beat, Veerichettipalli

Reserved Forest in Gudiyatham Range

of Vellore Forest Division

Area to be afforested: 5.52 ha

The area identified by the District Forest Officer, Vellore Division in lieu of diversion of 2.76 ha in Kallapadi Reserved Forest in Gudiyatham Range of Vellore Division. Afforestation will be carried out in 5.52 ha, which is double in extent of diverted 2.76 ha.

2. Description of the area:

i. Whether the site selected for compensatory afforestation is a land bank or not:

The site selected for compensatory afforestation is not a land bank.

ii. If the CA site is other than the land bank, reasons be given:

The CA site identified in degraded forest land of Veerichettipalli beat in Veerichettipalli Reserved Forest in Gudiyatham Range of Vellore Division.

iii. In case of non-forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary:

NA

iv. Soil type:

Hard red gravelly soil

v. Topography:

Nature: Hilly in Nature

Slope: Gentle slope 15-20%

vi. Whether the area is bearing any root stock of vegetation: NA

3. Plantation Model:

Copy of the approved compensatory afforestation scheme / model showing component wise physical and financial break up uploaded (enclosed)

4. Scheme of Plantation Programme:

Details of the plantation programme furnished in detailed estimate and uploaded.

5. Technical Details:

Technical details of Compensatory Afforestation Scheme as follows;

- a. General details: The compensatory afforestation scheme is proposed against diversion of project area.
- b. Spacement: 5 x 5 m
- c. Species: Vembu, Kodaivel, Parambai, Velvelan, Karuvelan, Elandhai, Pungan
- d. Plantation Method: Block method of planting through pit system
- e. Soil and Moisture Conservation works: Catch water pit and Mulching to be done
- f. Protection: Brushwood fencing to individual plant
- g. Proposed monitoring mechanism: Internal

h. Any other Information: The CA site identified in degraded forest land of Veerichettipalli beat, Veerichettipalli Reserved Forest in Gudiyatham Range of Vellore Division and it was found to be suitable for afforestation activities based on the past experience.

ABSTRACT PROPOSAL FOR COMPENSATORY AFFORESTATION OVER AN AREA OF 5.52 HA. IN KALLAPADI RESERVED FOREST OF GUDIYATHAM RANGE IN VELLORE FOREST DIVISION

Sl. No	Description of Work	Proposed estimate cost	Remarks
1	2	3	4
1	Raising Nursery	165000	
2	Planting operation	685000	-
3	1 st year Maintenance	138600	10 % weightage towards esclation of labour wage rate during 2019-20
4	2 nd year Maintenance	123600	10 % weightage towards esclation of labour wage rate during 2020-21
5	3 rd year Maintenance	130000	10 % weightage towards esclation of labour wage rate during 2021-22
6	4 th year Maintenance	143000	10 % weightage towards esclation of labour wage rate during 2022-23
7	5 th year Maintenance	157300	10 % weightage towards esclation of labour wage rate during 2023-24
8	6 th year Maintenance	173030	10 % weightage towards esclation of labour wage rate during 2024-25
9	7 th year Maintenance	190333	10 % weightage towards esclation of labour wage rate during 2025-26
10	8 th year Maintenance	209366	10 % weightage towards esclation of labour wage rate during 2026-27
11	9 th year Maintenance	230303	10 % weightage towards esclation of labour wage rate during 2027-28
12	10 th year Maintenance	253333	10 % weightage towards esclation of labour wage rate during 2028-29
	Total	2598865	

ESTIMATE FOR RAISING NURSERY FOR COMPENSATORY AFFORESTATION OVER AN AREA OF 5.52 HA FOR PARADHARAMI EXTENSION RF COMPENSATORY LAND IN KALLAPADI RESERVED FOREST OF GUDIYATHAM RANGE DURING 2018-19 UNDER **CAMPA SCHEME**

Total area

= 5.52 ha

No. of seedlings

= 1000/Ha

Total No of Seedlings 5520

10% Casuality

= 552

Total

= 6072

Size of Polybags = $16 \times 30 \times 300g$

Wage rate (From 4.5.18) = Rs.

326.50

Species proposed for planting

Vembu, Kodaivel, Parambai, Velvelan, Karuvelan,

Elandhai, Pungan

Total Prorata = Rs. 165000/-

S. No	Quantity	Unit	Name of Work	FSR / SSR	FSL	Rate	P	er	Amount
1	60	M²	Preparation of Nursery site by clearing and levelling the site for forming standard bed of size 10mX1m (10 M2/1000 Nos)	4.1	2.42	790.13	200	No	237
2	15	Kg	Cost of seeds (2kgs/ 1000 Nos)	LR		250.00	. 1	No	3750
3	6072	Nos.	Cost of 16 x 30 cm x 300 G Poly Bags	LR		1500.00	1000	No	9108
4	6	Cu.m	Forming Germination beds of size 10mx1mx 0.3m by heeaping the soil	PWD SSR item 62	-	50.60	1	No	304
5	6	Bed	Watering the germination beds twice daily with rose cans for 15 days	4.5.1	0.82	267.73	10	Beds / day	2410
6	6	Bed	Watering the germination beds once daily with rose cans for 15 days	4.5.2	0.41	133.87	10	Beds / day	1205
7	18.74	Cu.m	Collection & supply of sand, silt, and red soil according to the requirement for preparation of soil mixure - 4/5th of the total volume (1.96 M3/1000 Nos)	LR	-	800.00	1	Cu.m	14992

S. No	Quantity	Unit	Name of Work	FSR / SSR	FSL	Rate	P	er	Amount	
8	4.6	Cu.m	Cost and transport of Farm yard manure for filling bags - 1/5th of the total volume.	LR		800.00	1	Cu.m	3680	
9	6072	Nos.	Preparation of soil mixture by breaking clods, seiving, mixing red soil, silt, sand according to requirement and farm yard manure in the ratio of 4:1, heaping at the filling site and filling in poly bags, arranging bags in beds and pricking out the seedings (excluding cost of soil mixure and FYM)	4.6.5	5.95	1942.68	1000	Nos	11796	
10	213	Kgs.	Cost of Vermicasting @ 35 grm per seedlings	LR -		s=	10.00	1	Kg	2130
11	91	Kgs.	Cost of VAM @ 15 grm per seedlings			18.00	1	Kg	1638	
12	36.5	Kg	Cost of Azospirilum @ 6 gm per seedlings		LR	-	27.00	1	Kg	986
13	36.5	Kg	Cost of Phosphobacteria @ 6 gm per seedling			27.00	1	Kg	986	
14			Watering the container plants with rose cans - watering regime as per the NHAI ME approved in PCCF's Ref. No. J1/57395/2003 dt. 12.12.03.)							
	6072	Nos.	a) Twice daily - 10 days	4.10.5	0.37	120.81			7336	
	6072	Nos.	b) Once daily - 30 days		0.19	60.40	1000	Day	11002	
	6072	Nos.	c) Alternate days - 70 days	4.11.5	0.19	60.40			25672	
15	6072	Nos.	Shifting the container once in 21 days. First shift after 45 days from the date of transplanting -5 times	4.15.5	0.79	257.94	1000	Shift	7831	

		Unit	Name of Work	FSR / SSR	FSL	Rate	P	er	Amount
(Quantity	Unit						10000	
	0.06072 (7 M)	Nos.	Nursery protection mazdoors 1 No / 100000Nos of 16 x30cm bags - (25 d x 7 months)	Wage	1	326.50	1	/M	57138
	I	Contingencies for unforeseen L.S items including photo &			2	2799			
7	Lio		Documentation			Total	Amo	ount Rs.	16500

This estimate has been prepared based on the MTP model estimate, FSR, PWD SSR for the year Specifications: 2018-19 and the local rate as per model estimate.

This estimate may kindly be sanctioned at the earliest.

DISTRICT FOREST OFFICEN, VELLORE DIVISION, VELLORE-4.

ESTIMATE FOR PLANTING IN COMPENSATORY AFFORESTATION OVER AN AREA OF 5.52 HA FOR PARADHARAMI EXTENSION RF COMPENSATORY LAND KALLAPADI RESERVED FOREST OF **GUDIYATHAM RANGE DURING 2018-19 UNDER CAMPA SCHEME**

No of Seedlings =

5520

Size of Polybags = $16 \times 30 \times 300g$

10% Casuality =

552

Wage rate (From 4.5.18)= Rs. 326.50

Total 6072

Proposed for espacement = 5 m x 5 m

Total Prorata - Rs. 685000

Sl. No	Qty	Qty Description of work	Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per		Amount
1	5520	Nos	Digging of 45 cm pits in hard gravelly soil & hillocks during non rainy season	5.5.1	4.7	1534.55	100	Nos	84707
2	6072	Nos	Loading & unloading the container seedlings (16x30cm) in private lorry upto a lead of 2kms excluding hire charges for the vehicles.)	5.11.5	1.79	584.44	1000	Nos	3549
3	6072	Nos	Transport of container seedligs (16X30 cm) in private vehicles up to a lead of 10 Kms. excluding loading and unloading charges @ 2000/load	LR		1000.00	1000	Nos	6072
4			Transport of container seedligs (16X30 cm) by head load in the places where approach roads are not available to take vehicles to plantng site upto 500 mts						
	6072	Nos	In hills	5.13.2(ii)	8.70	2840.55	1000	Nos	17248
5			Distribution of seedlings in the site C.plants upto 500mtrs - in hills						
a)	1900	Nos	Up to 100 m.	5.16.1	6.00	1959.00	1000	Nos	3722
	2000		Up to 500 m.	5.16.3	13.31	4345.72	1000	Nos	8691
	2172		Up to 1000 m.	5.16.4	17.38	5674.57	1000	Nos	12325

SI. No	Qty	7	Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per		Amount
6	5520	Nos	Application of poultry manure @250g per plant by mixing in the pit before planting including cost & transport	LR		1.50	1	Nos	8280
7	5520	Nos	Application of DAP mixure @ 20g per plant by mixing in the pit before planting including cost & transport	LR		0.60	1	Nos	3312
8	5520	Nos	Planting the container plants by refilling pits of size 45cm.	5.21	1.15	375.48	100	Nos	20726
9	552	Nos	Replacement of casualties by reopening failed pits and planting the seedlings	5.23	3.11	1015.42	100	Nos	5605
10	5520	Nos	Scraping for 1m dia and soil working 15cm depth around each plants and removing the grass roots away from the site of upturning the soil	5.24	1.23	401.60	100	Nos	22168
11	5520	Nos	Forming catch water pits of size 90 x 45 x 30 in hillock and hard gravelly soil	5.26	6.84	2233.26	100	Nos	123276
12	5520	Nos	Brush wood fencing for planted seedlings	NTFP rate	-	52.00	1	Nos	287040
13	1	No	Providing name board		As pe	r TBGP rate			8000
14	3.42	kms	Fireline creation (around 3 m width) work around CA land	2.4	17.46	5700.69	1	Km	19496
15	2	No.	Engaging Fire Protection watcher in CA land - 3 months	Wage rate	1	326.50	1	Nos	48975
16	LS		Contingencies and unforseen expenditure			LS			1808
				9			Total an	nount	685000

Specifications:

This estimate has been prepared based on the MTP model estimate, FSR, PWD SSR for the year 2018-19 and the local rate as per model estimate.

This estimate may kindly be sanctioned at the earliest.

ESTIMATE FOR 1ST YEAR MAINTENANCE OF COMPENSATORY AFFORESTATION OVER AN AREA OF 5.52 HA FOR PARADHARAMI EXTENSION RF COMPENSATORY LAND IN KALLAPADI RESERVED FOREST OF GUDIYATHAM RANGE DURING 2019-20 UNDER CAMPA SCHEME

No of Casuality = 552

Size of Polybags = $16 \times 30 \times 300g$

Wage rate (From 4.5.18) = Rs. 326.50

S. No	Quantity	Unit	Name of Work	FSR / SSR	FSL	Rate	Per		Amount	
	A. Nurse	ry op	earation							
1	1	M ²	Preparation of Nursery site by clearing and levelling the site for forming standard bed of size 10mX1m (10 M2/1000 Nos)	4.1	2.42	790.13	200	No	4	
2	1.26	.Kg	Cost of seeds (2kgs/ 1000 Nos)	LR		250.00	1	No	315	
3	552	Nos.	Cost of 16 x 30 cm x 300 G Poly Bags	LR		1500.00	1000	No	828	
4	0.552	Cu. m	Forming Germination beds of size 10mx1mx 0.3m by heeaping the soil	PWD SSR item 62	-	50.60	1	No	28	
5	0.552	Bed	Watering the germination beds twice daily with rose cans for 15 days 01.03.2013 to 15.3.2013	4.5.1	0.82	267.73	10	Beds / day	222	
6	0.552	Bed	Watering the germination beds once daily with rose cans for 15 days 16.3.2013 to 30.3.2013	4.5.2	0.41	133.87	10	Beds / day	111	
7	1.72	Cu.	Collection & supply of sand, silt, and red soil according to the requirement for preparation of soil mixure - 4/5th of the total volume (1.96 M3/1000 Nos)	LR		800.00	1	Cu.m	1376	
8	0.41	Cu. m	Cost and transport of Farm yard manure for filling bags - 1/5th of the total volume.	LR		800.00	1	Cu.m	328	

S. No	Quantity	Unit	Name of Work	FSR / SSR	FSL	Rate	P	er	Amount
9	552	Nos.	Preparation of soil mixture by breaking clods, seiving, mixing red soil, silt, sand according to requirement and farm yard manure in the ratio of 4:1, heaping at the filling site and filling in poly bags, arranging bags in beds and pricking out the seedings (excluding cost of soil mixure and FYM)	4.6.5	5.95	1942.68	1000	Nos	1072
10	19.3	Kgs.	Cost of Vermicasting @ 35 grm per seedlings		-	10.00	1	Kg	193
11	8.3	Kgs.	Cost of VAM @ 15 grm per seedlings	As per Researc	-	18.00	1	Kg	150
12	3.3	Kg	Cost of Azospirilum @ 6 gm per seedlings	h Wing Rate	-	27.00	1	Kg	89
13	3.3	Kg	Cost of Phosphobacteria @ 6 gm per seedling		-	27.00	1	Kg	89
14			Watering the container plants with rose cans - watering regime as per the NHAI ME approved in PCCF's Ref. No. J1/57395/2003 dt. 12.12.03.)						
	552	Nos.	a) Twice daily - 10 days	4.10.5	0.37	120.81			667
	552	Nos.	b) Once daily - 30 days		0.19	60.40	1000	Day	1000
	552	Nos.	c) Alternate days - 70 days	4.11.5	0.19	60.40			2334
15	552	Nos.	Shifting the container once in 21 days. First shift after 45 days from the date of transplanting -5 times	4.15.5	0.79	257.94	1000	Shift	712
16	0.00552	Nos.	Nursery protection mazdoors 1 No / 100000Nos of 16 x30cm bags - 210 days.	Wage rate	1	326.50	1	1000 0/M	378
17	L.S		Contingencies for unforeseen items including photo & Documentation			L.S		1104	
							TOTA	AL (A)	11000

S. No	Quantity	Unit	Name of Work	FSR / SSR	FSL	Rate	P	er	Amount
	B. PLAN	TINC	GOPERATION						
1	552	Nos	Replacement of casualties by reopening failed pits and planting the seedlings	5.23	3.11	1015.42	100	Nos	5605
2	5520	Nos	Scraping for 1m dia and soil working 15cm depth around each plants and removing the grass roots away from the site of upturning the soil	5.24	1.23	401.60	100	Nos	22168
3	552	Nos	Loading & unloading the container seedlings (16x30cm) in private lorry upto a lead of 2kms excluding hire charges for the vehicles.)	5.11.5	1.79	584.44	1000	Nos	323
4	552	Nos	Transport of container seedligs (16X30 cm) in private vehicles up to a lead of 10 Kms. excluding loading and unloading charges @ 2000/load	LR		1000.00	1000	Nos	552
5	552	Nos	Transport of container seedligs (16X30 cm) by head load in the places where approach roads are not available to take vehicles to plantng site upto 500 mts - In hills	5.13.2(i i)	8.70	2840.55	1000	Nos	1568
6			Distribution of seedlings in the site C.plants upto 500 mtrs - Hills						
a)	130	Nos	Up to 100 m.	5.16.1	6.00	1959.00	1000	Nos	255
	130	Nos	Up to 200 m.	5.16.2	8.51	2778.52	1000	Nos	361
	130	Nos	Up to 500 m.	5.16.3	13.3	4345.72	1000	Nos	565
	162	Nos	Up to 1000 m.	5.16.4	17.4	5674.57	1000	Nos	919
7	5520	Nos	Application of poultry manure @250g per plant by mixing in the pit before planting including cost & transport	LR		1.50	1	Nos	8280

S. No	Quantity	Unit	Name of Work	FSR / SSR	FSL	Rate	Rate Per			ate Per	Amount
8	5520	Nos	Application of DAP mixure @ 20g per plant by mixing in the pit before planting including cost & transport	LR		0.60	1	Nos	3312		
9	3.42	kms	Fireline creation (around 3 m width) work around CA land	2.4	17.5	5700.69	1	Km	19496		
10	2	Nos.	Engaging Fire Protection watcher in CA land - 3 months	Wage rate	1	326.50	1	Nos	48975		
11	LS		Contingencies and unforseen expenditure to be restricted to as per actuals.		LS						
							TOT	AL (B)	115000		
			Total am	ount (A-	+B) for	1st year 1	nainte	enance	126000		
						Add 10%	of esca	lation	12600		
					Gi	rand Total	for 1s	st year	138600		

ESTIMATE FOR 2nd YEAR MAINTENANCE OF COMPENSATORY AFFORESTATION OVER AN AREA OF 5.52 HA FOR PARADHARAMI EXTENSION RF COMPENSATORY LAND IN KALLAPADI RESERVED FOREST OF GUDIYATHAM RANGE DURING 2020-21 UNDER CAMPA SCHEME

Total area

= 5.52 ha

Size of Polybags = $16 \times 30 \times 300g$

No. of seedlings/Ha = 1000/Ha

Wage rate (From 4.5.18) = Rs. 326.50

Seedlings planted = 5520

Survival 95% = 5244

S. No	QTY	Unit	Name of Work	FSR / SSR	FSL	Rate	P	er	Amount
1	5244	Nos	Scraping for 1m dia and soil working 15cm depth around each plants and removing the grass roots away from the site of upturning the soil	5.24	1.23	401.60	100	Nos	21060
2	5244	Nos	Application of poultry manure @250g per plant by mixing in the pit before planting including cost & transport	LR		1.50	1	Nos	7866
3	5244	Nos	Application of DAP mixure @ 20g per plant by mixing in the pit before planting including cost & transport	LR		0.60	1	Nos	3146
4	3.42	kms	Fireline creation (around 3 m width) work around CA land	2.4	17.5	5700.69	1	Km	19496
5	2	No.	Engaging Fire Protection watcher in CA land - 3 months	Wage	1	326.50	1	Nos	48975
6	LS		Contingencies and unforseen expenditure			LS			2457
			TOTAL F	rorata	for 2n	d year ma	ainte	nance	103000
			Add 20% of es	calatio	n for	next year	(2nd	year)	20600
					P	rorata foi	nex	t year	123600

ESTIMATE FOR 3rd YEAR MAINTENANCE OF COMPENSATORY AFFORESTATION OVER AN AREA OF 5.52 HA FOR PARADHARAMI EXTENSION RF COMPENSATORY LAND IN KALLAPADI RESERVED FOREST OF GUDIYATHAM RANGE DURING 2021-22 UNDER CAMPA SCHEME

Total area

5.52 HA.

Size of Polybags = $16 \times 30 \times 300g$ Wage rate (From 4.5.8) = Rs. 326.50

No. of seedlings/Ha

1000/Ha 5520

Seedlings planted

Survival 90% 4968

S. No	QTY	Unit	Name of Work	FSR / SSR	FSL	Rate	I	Per	Amoun
1	4968	Nos	Scraping for 1m dia and soil working 15cm depth around each plants and removing the grass roots away from the site of upturning the soil	5.24	1.23	401.60	100	Nos	19951
2	4968	Nos	Application of poultry manure @250g per plant by mixing in the pit before planting including cost & transport	LR		1.50	1	No	7452
3	4968	Nos	Application of DAP mixure @ 20g per plant by mixing in the pit before planting including cost & transport	LR		0.60	1	No	2981
4	3.42	kms	Fireline creation (around 3 m width) work around CA land	2.4	17.5	5700.69	1	Km	19496
5	2	No.	Engaging Fire Protection watcher in CA land - 3 months	Wage	1	326.50	1	No	48975
6	LS		Contingencies and unforseen expenditure			LS			1145
			TOTAL Pr	orata fo	or 3 rd	l year ma	inten	ance	100000
			Add	30% of	escal	ation for	next	year	30000
prorata for next year									
4 th year maintenance add 10% escalation									
				4 1	h yea	r mainten	ance	cost	143000

14300	5 th year maintenance add 10% of escalation
157300	5 th year maintenance cost
15730	6 th year maintenance add 10% escalation
173030	6 th year maintenance cost
17303	7 th year maintenance add 10% of escalation
190333	7 th year maintenance cost
19033	8 th year maintenance add 10% escalation
209366	8 th year maintenance cost
20937	9 th year maintenance add 10% of escalation
230303	9 th year maintenance cost
23030	10 th year maintenance add 10% of escalation
253333	10 th year maintenance cost

WORK SCHEDULE FOR COMPENSATORY AFFORESTATION OVER AN AREA OF 5.52 HA IN KALLAPADI RESERVED FOREST IN GUDIYATHAM RANGE OF VELLORE FOREST DIVISION

Sl. No	Description of Work	Period of work
1	2	3
1	Raising Nursery	Jun 2018 to Oct 2018
2	Planting operation	November 2018 to December 2018
3	1 st year Maintenance	September 2019 to March 2020
4	2 nd year Maintenance	September 2020 to March 2021
5	3 rd year Maintenance	September 2021 to March 2022
6	4 th year Maintenance	September 2022 to March 2023
7	5 th year Maintenance	September 2023 to March 2024
8	6 th year Maintenance	September 2024 to March 2025
9	7 th year Maintenance	September 2025 to March 2026
10	8 th year Maintenance	September 2026 to March 2027
11	9 th year Maintenance	September 2027 to March 2028
12	10 th year Maintenance	September 2028 to March 2029