

COMPENSATORY AFFORESTATION SCHEME

Cost estimate for Compensatory Afforestation scheme including maintenance of plantation for 10 years in lieu of land diverted for formation of road from Vachathi to Kalasapadi via Arasanatham in Pallipatti RF, Thombakkal RF and Thombakkal extension RF of Harur Range in Dharmapuri Forest Division.

GENERAL ABSTRACT

Sl. No.	Details of work	Unit	Amount proposed
1	Cost estimate for Compensatory Afforestation scheme over an extent of 8.00 ha in the degraded Forest area of Thoppur Reserved Forest of Dharmapuri Range for Compensatory Afforestation during 2022-2023.	8.00 Ha.	8976207.00
2	Chain link fencing around plantation to prevent biotic pressure @ 250RM per ha at the rate of Rs.2420 per RM for 1580mtr fencing for 8.00Ha of Thoppur degraded forest area of Dharmapuri range (Pheripharal Length-3 sides only) (Separate calculation sheet is enclosed)	8.00 ha.	3823600.00
	Total	8.00 ha.	₹ 1,27,99,807.00 (or) 127.998 Lakhs

K. S. Srinivasan
District Forest Officer,
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10/2/2023

Abstract Model estimate for Raising Compensatory afforestation over an area of 8.00 Ha of degraded forest area at Thoppur RF of Dharmapuri Range during 2022-2023 under State CAMPA scheme

No. of seedlings : 8000 @ 1000 Nos per Ha
 For 10% casualty replacement : 800
 TOTAL 8800

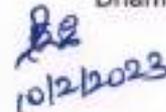
Sl. No.	Description of Work	Proposed estimate cost in Rupees	Remarks
1	2	3	4
1	Raising nursery - 8800 Nos	1,259,248	1000 Nos of seedlings per ha
2	Planting operation - 8000 seedlings	2,262,919	10% Weightage towards escalation of labour wage rate during 2023-24
3	1 st year Maintenance	1,629,963	20% Weightage towards escalation of labour wage rate during 2024-25
4	2 nd year Maintenance	1,513,608	30% Weightage towards escalation of labour wage rate during 2025-26
3	3 rd year Maintenance	1,630,040	40% Weightage towards escalation of labour wage rate during 2026-27
6	4 th year Maintenance	71,721	50% Weightage towards escalation of labour wage rate during 2027-28
7	5 th year Maintenance	78,893	60% Weightage towards escalation of labour wage rate during 2028-29
8	6 th year Maintenance	86,782	70% Weightage towards escalation of labour wage rate during 2029-30
9	7 th year Maintenance	95,461	80% Weightage towards escalation of labour wage rate during 2030-31
10	8 th year Maintenance	105,007	90% Weightage towards escalation of labour wage rate during 2031-32
11	9 th year Maintenance	115,507	100% Weightage towards escalation of labour wage rate during 2032-33
12	10 th year Maintenance	127,058	110% Weightage towards escalation of labour wage rate during 2033-34
TOTAL		8,976,207	

Prorata for 1 ha area

1,122,025.86

(OR) Rs. 11.2202 Lakhs


 District Forest Officer,
 Dharmapuri Forest Division,
 Dharmapuri.


 10/2/2023

Model estimate for Raising nursery for native tree species for Compensatory afforestation over an area of 8.00 Ha in degraded forest area at Thoppur RF during 2022-2023 under State CAMPA scheme

Total Area = 8.00 Ha

Seedlings per ha = 1000 Nos per Ha

No of Seedlings = 8000

10% Casualty = 800

Total = 8800

Size of Polybags = 13 x 25 x 250g

Transplanting Size of Polybags = 30 x 45 x 600g

Proposed Espacement = Gap planting

Species proposed for planting

Native species like Vembu, Velvel, Nelli, Naval, Vengai, Red Sanders, Iluppai etc.,

Wage rate 2022-2023 = Rs. 475.75

SL No	Qty	Unit	Name of Work	FSR / SSR	FSL	Rate	Per	Amount	
PART I - Small size bags.- 13X25 cm.									
1	968	M ²	Preparation of Nursery site by clearing and levelling the site for forming standard bed of size 10mX1m (110M ² /1000 Nos)	4.1	2.42	1151.32	200	No	5572
2	17.60	Kg	Cost of seeds (2kgs/ 1000 Nos)	LR	-	250.00	1	No	4400
3	8800	Nos.	Cost of 13x25cmx250G Polythene bags	Tender rate	-	615.00	1000	No	5412
4	26.00	Cum	Forming germination beds of size 10mx1mx 0.3m by heaping the soil - 2500 No per bed	PWD SSR item 62	-	73.10	1	cum	1901
5	2.00	Bed	Watering the germination beds twice daily with rose cans for 15 days	4.5.1	0.82	390.12	10	Beds / day	1170
6	2.00	Bed	Watering the germination beds once daily with rose cans for 15 days	4.5.2	0.41	195.06	10	Beds / day	585
7	7.39	Cu.m	Collection & supply of sand,silt and red soil according to the requirement for preparation of soil mixture - 3/4th of the total volume (0.84 M ³ /1000 Nos)	LR	-	750.00	1	Cu.m	5543
8	2.46	Cu.m	Cost and transport of Farm yard manure for filling bags - 1/ 4th of the total volume. (0.28 M ³ /1000 Nos)	LR	-	750.00	1	Cu.m	1845
9	8800	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 3:1, heaping at the filling site and filling in poly bags, arranging bags in beds and pricking out the seedlings (excluding cost of soil mixture and FYM)	4.6.4	4.48	2131.36	1000	Nos	18756

SL. No	Qty	Unit	Name of Work	FSR / SSR	FSL	Rate	Per		Amount
10	220	Kgs.	Cost of Vermicasting @ 25 gram per seedlings	As per Research Wing Rate	-	10.00	1	Kg	2200
11	88	Kgs.	Cost of VAM @ 10 gram per seedlings		-	18.00	1	Kg	1584
12	44	Kg	Cost of Azospirillum @ 5 gram per seedlings	As per Research Wing Rate	-	27.00	1	Kg	1188
13	44	Kg	Cost of Phosphobacteria @ 5 gram per seedling		-	27.00	1	Kg	1188
14			Watering the container plants with rose cans -						
a	8800	Nos.	Twice daily - 15 days	4.10.4	0.23	109.42	1000	Day	14443
b	8800	Nos.	Once daily - 30 days		0.115	54.71			14443
c	8800	Nos.	Alternate days spread over 30 days (Effective days-15)		4.11.4	0.115			54.71
15	8800	Nos.	cost of water for watering the container seedlings - 60 watering days	4.18 - FSR 1998-99		0.85	1000	day	337
16	8800	Nos.	Land rent @ 3000 bags/40 sq.m) - 3 Months	4.17	LR	86.00	40	sq.m/month	757
	117.3	M2/ 3 months							
17	8800	Nos.	Shifting the container plants, weeding, grading and replacement of casualties in the bags (-shifting to done once in 21 days, first shifting not before 45 days after pricking out) 2 shifts	4.15.4	0.51	242.63	1000	Shift	4270
SUB - TOTAL (A)									92816
PART II - Bigger size bags: 30x45cmx600g.									
18	8800	Nos.	Cost of 30 X 45cm X 600 G Polythene bags	Tender rate	--	9700.00	1000	No	85360
19	81.22	M3	Collection & supply of sand,silt and red soil according to the requirement for preparation of soil mixture - 4/5th of the total volume (excluding the volume of earth in 13X25cm containers). (@ 9.23 Cu.m/1000 Nos)	LR	-	750.00	1	M3	60915
20	20.33	M3	Cost and transport of Farm yard manure for filling bags - 1/5th of the total volume. (@ 2.31 Cu.m/1000 Nos)		-	750.00	1	M3	15248

SL. No	Qty	Unit	Name of Work	FSR / SSR	FSL	Rate	Per		Amount	
21	8800	Nos.	Preparation of soil mixture by breaking clods, sieving, mixing red soil, silt, and sand according to requirement and farm yard manure in the ratio of 4:1, heaping at the fillingsite and filling in poly bags, arranging bags in beds and pricking out the seedlings (excluding cost of soil mixture and FYM)	4.6.7	28.57	13592.18	1000	Nos	119611	
22	308	Kgs.	Cost of Vermicasting @ 35 gram per seedlings	As per Research Wing Rate	-	10.00	1	Kg	3080	
23	132	Kgs.	Cost of VAM @ 15 gram per seedlings		-	18.00	1	Kg	2376	
24	53	Kg	Cost of Azospirillum @ 6 gram per seedlings	As per Research Wing Rate	-	27.00	1	Kg	1431	
25	53	Kg	Cost of Phosphobacteria @ 6 gram per seedling		-	27.00	1	Kg	1431	
26	88	Mazdoors	Labour cost for transplanting seedlings from 13 X 25 cm containers bags in to 30 X 45 cm containers - 10 Maz. / 1000	As per ME of MTP	-	475.75	1	Nos	41866	
27	8800	Nos.	Cost of vertical strick (Casurina poles 5 cm -8 cm girth and 2.50 m height for each plants)	PWD SSR	-	17.50	1	Rm	385000	
28	8800	Nos.	Cost of horizontal strick (Casurina poles 5 cm -8 cm girth and 1.00 m height for each plants)	PWD SSR	-	17.50	1	Rm	154000	
29	8800	Nos.	Tying plants to the vertical stick once in a month - 2 times		ME	-	0.40	1	Each/ time	7040
30	8800	Nos.	Pruning side branches once in 2 months - 2 times		ME	-	1.00			17600
31			Watering the container plants with rose cans							
a	8800	Nos.	Twice daily - 15 days	4.10.7	0.56	266.42	1000	Day	35167	
b	8800	Nos.	Once daily - 30 days	4.11.7	0.28	133.21	1000	Shift	35167	

SL No	Qty	Unit	Name of Work	FSR / SSR	FSL	Rate	Per		Amount
c	8800	Nos.	Once in alternate days -spread over 60 days (Effective days-30 days)	4.11.7	0.28	133.21	1000	Shift	35167
d	8800	Nos.	Twice in a week spread over 105 days (Effective days-30 days)	4.11.7	0.28	133.21	1000	Shift	35167
32	8800	Nos.	Land rent @ 500 bags/40 sq.m)	4.17	LR	86.00	40	sq.m/month	10595
	704	m ² /7 months							
33	8800	Nos.	Shifting the container plants, weeding, grading and replacement of casualties in the bags - shifting to done once in 21 days- 7 shift	4.15.7	2.69	1279.77	1000	Shift	78834
34	8800	Nos.	cost of water for watering the container seedlings - 105 watering days	4.18 - FSR 1998-99		1.60	1000	day	1478
35	1.00	Nos.	Nursery protection mazdoors 1 No / 100000 Nos of 30 x45cm bags - 300 days. (90d+210d)	As per ME of MTP	1	475.75	1	100000/M	12560
36			GST 18% (Item No.3, 17)						16339
37	5 Months		Provision for cost of pesticides and fungicides and Labour charges for application of pesticides - 2 times / month	LR	-	200	1	times	3000
39	L.S		Photo & Documentation etc.,			L.S			5000
39	L.S		Contingencies unforeseen items			L.S			3000
SUB - TOTAL (B)									1166432
TOTAL (A + B)									1259248

Raising cost for 8800nos of seedlings = 1259248

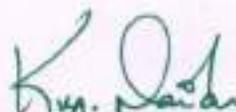
cost for 1 seedlings = Rs 143.10 per seedling 143.10

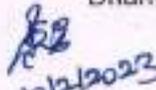
Specifications :

1) No. of seedlings has been proposed for planting based on the Government of India Letter F.No.11-423/2011-FC dated 08.11.2017, compensatory afforestation has to be carried out at 1000 seedlings per ha . Hence 8000 nos of seedlings has been proposed for 8.00 ha with 10% of casualty 800 Nos. Totally 8800 Nos of seedlings has been proposed.

2) Bio-fertilizers may be applied as per norms prescribed by Research wing.

3) The estimate has been prepared based on NHA/MTP model estimate, FSR, PWD SSR for the year 2022-23 and the local rate as per model estimate and Research Wing rate.


 District Forest Officer,
 Dharmapuri Forest Division,
 Dharmapuri.


 10/12/2023

Model estimate for planting of native tree species for Compensatory afforestation over an area of 8.00 Ha in degraded forest area at Thoppur RF during 2022-2023 under State CAMPA scheme

No of seedlings = 8000
 10% Casualty = 800
 Total = 8800

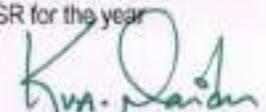
Size of Polybags = 30 x 45 x 600g
 Wage rate = Rs. 475.75
 2022-2023

Sl. No	Qty		Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per		Amount
1	8000	Nos	Aligning and Marking in plantation area	5.2.4	1.38	656.54	100	Nos	52523
2	8000	Nos	Digging of 60 CM3 pits in all types of soil during non rainy season	5.8.1	9.26	4405.45	100	Nos	352436
3	8000	No.	Cost & transport of Farmyard manure each plants 0.60x0.60x0.20=0.072m3/pit	Lowest quotation	-	750.00	1	M3	432000
	576	M3							
4	8000	Nos	Application of Farm yard manure by mixing in the pit before planting - 1 mazdoor for 200 Nos	FSL Wage rate	1.00	475.75	200	No	19030
5	8000	Nos	Cost of Bio fertilizer including cost of application - Vermicompost - 1 Kg, Bio Fertilizers - 100 gms, VAM- 100 gms	NHAI ME	-	7.70	1	No	61600
6	8800		Transporting saplings (transported to the radius of 40 kms) excluding loading and unloading by Private Vehicle	NHAI ME	-	7.00	1	No	61600
7	8800	Nos	Loading & unloading the container seedlings (30x45cm) in private lorry upto a lead of 2kms excluding hire charges for the vehicles.)	5.11.7	3.29	1565.22	1000	Nos	13774
8			Distribution of saplings from where seedlings are stocked to the planting spot in plains upto 500 mts						
a	3520	Nos	Upto 100 mts	5.15.1	10.00	4757.50	1000	Nos	16746
b	3520	Nos	Upto 200 mts	5.15.2	17.50	8325.63	1000	Nos	29306
c	1760	Nos	Upto 500 mts	5.15.3	41.00	19505.75	1000	Nos	34330
9	8000	Nos	Planting the container plants by refilling pits of size 60cm.	5.22	1.71	813.53	100	Nos	65082
10	12500	RM	Provision of vertical casurina poles 5cm to 8cm 2.50mtr ht. per plant	PWD SSR		17.50	1	RM	218750
11	800	Nos	Replacement of casualties by reopening failed pits and planting the seedlings (1/2 pitting rate on rainy days + full planting rate)	5.23	6.34	3016.26	100	Nos	24130
Sl. No	Qty		Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per		Amount

12	8000	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	585.17	100	Nos	46814
13	0	Nos	Forming catch water drains for each plant of 90x45x 30 cm size in hillocks and hard gravelly soil	5.26	6.84	3254.13	100	Nos	0
14	0	Nos	Providing Brush wood fencing around each plants	-	0.25	118.94	1	No	0
15	8000	Nos	Watering the plants once in 6 days during summer/non-rainy period from January to March @ one mazdoor for 200 plants/watering day (15 watering days)	NHAI ME		475.75	200	Nos	285450
16	2400000	Ltrs	Cost of water @ 20 liter per seedlings 15 waterig days (8000x20x15=2400000 Lts)	NHAI ME		1200.00	12000	Lts	240000
17	1	Nos.	Plantation Protection mazdoors from October to March - 180 m.days	Wage rate	1	475.75	1	M. Days	85635
18	8000	Nos	Removing/scrapping vizal monsoon or bothai grass for one meter dia around the plants	5.27	0.21	99.91	100	Nos	7993
19	5	Months	Provision for cost of pesticides and fungasides and Labour charges for application of pesticides - 2 times / month	L.R	-	200	1	time s	2000
20	L.S		Photo & Documentation etc.,			LS			5000
21	LS		Contingencies and unforeseen expenditure to be restricted to as per actuals.			LS			3000
TOTAL									2057199
Add 10% of escalation									205720
Total prorata									2262919

Specifications :

- 1) No. of seedlings has been proposed for planting based on the Government of India Letter F.No.11-423/2011-FC dated 08.11.2017, compensatory afforestation has to be carried out at 1000 seedlings per ha . Hence 8000 nos of seedlings has been proposed for 8.00 ha with 10% of casuality 800 Nos. Totally 8800 Nos of seedlings has been proposed.
- 2) Rates for the works in SI No. 2 and 8 have been provided for plains. If the area identified for compensatory afforestation is in hilly terrain, the rates for the hills may be followed - **Thoppur RF (Plains)**.
- 3) The Chain link fencing is adopted for degraded Forest area , hence brush wood fencing component for each plant is not necessary.
- 4) The estimate has been prepared based on NHAI/MTP model estimate, FSR, PWD SSR for the year 2022-23 and the local rate as per model estimate and Research Wing rate.


 District Forest Officer,
 Dharmapuri Forest Division,
 Dharmapuri.


 10/2/2023

Model estimate for 1st year maintenance of CA plantation over an area of 8.00 Ha in degraded forest area at Thoppur RF during 2022-2023 under CAMPA scheme

No of seedlings planted 8000

No of Seedlings for casulty replacement = 800

(10% replacement)

Size of Polybags = 30 x 45 x 600g

Wage rate = Rs. 475.75

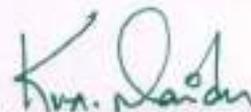
Sl. No	Qty		Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per		Amount
A. NURSERY OPERATION									
1	800	No	Raising cost of seedlings in 30x45 size polythene bags (As per nursery estimate)	As per nursery estimate	-	143.10	1	No	114479
TOTAL (A)									114479
B. PLANTING OPERATION									
1	800	No	Cost & transport of Farm yard manure each plants	Lowest	-	750.00	1	m3	43200
	58	M3	0.60x0.60x0.20=0.072m3/pit						
2	400	Nos.	Application of Farm yard manure by mixing in the pit before planting - 1 mazdoor for 200 Nos	FSL Wages Rate	-	475.75	200	Nos.	952
3	800	Nos.	Transporting saplings (transported in the radius of 40 Kms) excluding loading and unloading in Private vehicle	NHAI ME	--	7.00	1	No.	5600
4	800	Nos	Loading & unloading the container seedlings (30x45cm) in private lorry upto a lead of 2kms (excluding hire charges for the vehicles.)	5.11.7	3.29	1565.22	1000	Nos	1252
5			Distribution of seedlings in the site C.plants upto 500mtrs - in plains						
a	320	Nos	Up to 100 m.	5.15.1	10.00	4757.50	1000	Nos	1522
b	320	Nos	Up to 200 m.	5.15.2	17.50	8325.63	1000	Nos	2664
c	160	Nos	Up to 500 m.	5.15.2	41.00	19505.75	1000	Nos	3121
6	800	Nos	Replacement of casualties by reopening failed pits and planting the seedlings	5.23	5.57	2649.93	100	Nos	21199

7	8000	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	585.17	100	Nos	46814
8	8000	Nos	Cost of Bio Fertilizers including cost of application Vermi-campose 1 kg,Bio fertilizer 100 gms VAM 100 Gms	NHAI ME	-	7.70	1	No.	61600
9	4800000	Ltrs	Cost of water @ 20 liter per seedlings 30 watering days (8000x20x30=4800000 Ltrs)	NHAI ME	-	1200.00	12000	Lts	480000
10	8000	Nos	Watering the plants once in 6 days (excluding rainy days) from April to June & January to March @ one mazdoor for 200 plants/watering day - (15+15 = 30 watering days)	4.11.7	0.28	475.75	200	Shift	570900
11	0.00	No	Engaging protection Mazdoor @ 1 Mazdoor from April to March - 12 months (25 days/ Month)	FSR wage rate	-	475.75	0	No	0
12	LS		Contingencies and unforeseen expenditure to be restricted to as per actuals.			LS			5000
TOTAL (B)									1243824
TOTAL (A+B) prorata for 1st year maintenance									1358303
Add 20% of escalation									271661
Total prorata									1629963

Specifications :

- 1) The estimate has been prepared based on NHAI/MTP model estimate, FSR, PWD SSR for the year 2022-23 and the local rate as per model estimate and research wing rate.
- 2) The rate for the work in Sl No. 5 has been provided for plains. If the area identified for compensatory afforestation is in hilly terrain, the rates for hills may be adopted - **Thoppur RF (Plains)**

Note: The degraded Forest land is manageable by the respective Range Front line staffs for protection and maintenance.Hence separate Protection mazdoor doesnot requires (item No.11).


 District Forest Officer,
 Dharmapur Forest Division,
 Dharmapuri.


 10/2/2023

Model estimate for 2nd year maintenance of CA plantation over an area of 8.00 Ha in degraded forest area at Thoppur RF during 2022-2023 under CAMPA scheme

No of Seedlings = 8000

Survival 100% = 8000

Wage rate = Rs. 475.75

2022-2023

Sl. No	Qty	Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per	Amount
1	8000 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	585.17	100 Nos	46814
2	8000 Kgs	Cost of Bio Fertilizers including cost of application Vermi-campose 1 kg,Bio fertilizer 100 gms VAM 100 Gms	NHAI ME	-	7.70	1 Kg	61600
3	4800000 Ltrs	Cost of water @ 20 liter per seedlings 30 watering days (8000x20x30=4800000 Ltrs)	NHAI ME	-	1200.00	12000 Lts	480000
4	8000 Nos	Watering the plants once in 6 days (excluding rainy days) from April to June & January to March @ one mazdoor for 200 plants/watering day - (15+15 = 30 watering days)	4.11.7		475.75	200 Shift	570900
5	0.00 No	Engaging protection Mazdoor @ 1 Mazdoor (3 months) (25 days/ Month)	FSR wage rate	-	475.75	0 No	0
6	LS	Contingencies and unforeseen expenditure to be restricted to as per actuals.			LS		5000
Total prorata							1164314
Add 30% of escalation							349294
Total prorata 2nd year maintenance							1513608

Specifications :

The estimate has been prepared based on MTP model estimate, FSR, PWD SSR for the year 2022-23 and the local rate as per model estimate and Research Wing rate.

Note: The degraded Forest land is managable by the respective Range Front line staffs for protection and maintenance.Hence separate Protection mazdoor doesnt requires (item no.5)


 District Forest Officer,
 Dharmapuri Forest Division,
 Dharmapuri.


 10/2/2023

Model estimate for 3rd year maintenance of CA plantation over an area of 8.00 Ha in degraded forest area at Thoppur RF during 2022-2023 under CAMPA scheme

No of Seedlings = 8000
Survival 100% = 8000

Wage rate = Rs. 475.75
2022-2023

Sl. No	Qty	Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per	Amount
1	8000 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	585.17	100 Nos	46814
2	8000 Kgs	Cost of Bio Fertilizers including cost of application Vermi-campose 1 kg,Bio fertilizer 100 gms VAM 100 Gms	NHAI ME	-	7.70	1 Kg	61600
3	4800000 Ltrs	Cost of water @ 20 liter per seedlings 30 watering days (8000x20x30=4800000 Ltrs)	NHAI ME	-	1200.00	12000 Lts	480000
4	8000 Nos	Watering the plants once in 6 days (excluding rainy days) from April to June & January to March @ one mazdoor for 200 plants/watering day - (15+15 = 30 watering days)	4.11.7	0.28	475.75	200 Shift	570900
5	0.00 No	Engaging protection Mazdoor @ 1 Mazdoor (3 months) (25 days/ Month)	FSR wage rate	-	475.75	0 No	0
6	LS	Contingencies and unforeseen expenditure to be restricted to as per actuals.			LS		5000
Total prorata							1164314
Add 40% of escalation							465726
Total prorata 3rd year maintenance							1630040

Specifications :

The estimate has been prepared based on MTP model estimate, FSR, PWD SSR for the year 2022-23 and the local rate as per model estimate and Research Wing rate.

Note: The degraded Forest land is manageable by the respective Range Front line staffs for protection, Hence separate Protection mazdoor doesn't require (item no.5).


 District Forest Officer,
 Dharmapuri Forest Division,
 Dharmapuri.
 10/12/2023

Model estimate for 4th year maintenance of CA plantation over an area of 8.00 Ha in degraded forest area at Thoppur RF during 2022-2023 under CAMPA scheme

No of Seedlings = 8000
Survival 100% 8000

Wage rate = Rs. 475.75
2022-2023

Sl. No	Qty	Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per	Amount
1	8000 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	585.17	100 Nos	46814
2	LS	Contingencies and unforeseen expenditure to be restricted to as per actuals.			LS		1000
Total prorata							47814
Add 50% of escalation							23907
Total prorata 4th year maintenance							71721
Add 10% of escalation for 5th year							7172
Total prorata for 5th year maintenance							78893
Add 10% of escalation for 6th year							7889
Total prorata for 6th year maintenance							86782
Add 10% of escalation for 7th year							8678
Total prorata for 7th year maintenance							95461
Add 10% of escalation for 8th year							9546
Total prorata for 8th year maintenance							105007
Add 10% of escalation for 9th year							10501
Total prorata for 9th year maintenance							115507
Add 10% of escalation for 10th year							11551
Total prorata for 10th year maintenance							127058

Specifications :

The estimate has been prepared based on MTP model estimate, FSR, PWD SSR for the year 2022-23 and the local rate as per model estimate and Research Wing rate.


 District Forest Officer,
 Dharmapuri Forest Division,
 Dharmapuri.

 10/2/2023

Providing Chain link fencing (for 1000m) around Compensatory Afforestation over an area of 8.00Ha at Thoppur degraded Forest land of Dharmapuri range in Dharmapuri Forest Division during 2022-23

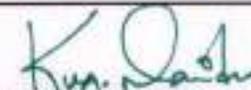
ABSTRACT ESTIMATE

Sl. No.	Quantity		Description	Rate	per	Amount
1	2000.00	M ²	Clearing the light jungle as per standard specification.	6.66	M ²	13,320.00
2	108.43	M ³	Earth work open excavation in SDR - (Not Requiring Blasting) Earth work excavating and depositing on bank with initial lead of 10 m & initial lift of 2m in Soft disintegrated rock, laterite, soft rock or kankar, not requiring blasting inclusive of shoring shuttering, bailing out water wherever necessary and depositing the excavated earth with a lead of 10 m`ts. in places shown by the departmental officers and clearing and levelling the site, etc., complete complying with standard specification.	189.84	M ³	20,584.00
3	33.89	M ³	Cement Concrete 1:2:4 (One Cement, Two sand and Four hard broken stone jelly) using 20 mm gauge hard broken granite stone jelly for foundation including dewatering wherever necessary and laid in layers of not more than 15 cm thick, well rammed, consolidated and curing etc. complete complying with standard specification	6,935.01	M ³	2,35,027.00
4	451.80	M ²	Supplying and erecting steel centering including necessary supports for plane surfaces for Reinforced Cement Concrete works such as column footings, column pedestals, plinth beams, grade beams, staircase steps, etc. which require only nominal strutting using mild steel sheets of size 90cm x 60cm and 10 BG stiffened with welded mild steel angles of size 25mm x 25mm x 3 mm for boarding, laid over silver oak joists of size 10cm x 6.5cm spaced at about 75cm centre to centre or at suitable intervals etc. complete in all floors complying with standard specification. (Payment for centering shall be given after the concrete is laid)	872.74	M ²	3,94,304.00
5	5421.60	kg.	Supplying and fixing in position of 2 1/2" x 2 1/2" x 1/4" (62.50 x 62.5 x 6.25mm) MS angles including cost and conveyance of materials and fixing in position including cutting and welding etc; complete complying with standard specification and as directed by the departmental officers.	69.12	M ³	3,74,741.00
6	1830.00	M ²	Supplying and fixing in position of Chain Link 2" x 2" using 10 Gauge Galvanised Iron Wire (of all sizes) including cost and conveyance of all materials at site and labour for fixing including cost of binding wire etc. complete complying with standard specification.	274.32	M ³	5,02,006.00

Sl. No.	Quantity	Description	Rate	per	Amount
7	135.54 M ²	Plastering with Cement mortar 1:5 (one cement and five sand) 20mm thick in all floors including mixing mortar, working in all heights including curing with all leads and lifts for good water etc., complete complying with TNBSS and as directed by the departmental officers.	508.65	M ²	68,942.00
8	135.54 M ²	WHITE WASHING TWO COATS using best freshly burnt shell lime and colouring pigments in all floors including cost of lime blue powder, fevical type gum brushes, scaffolding charges etc., complete complying with standard specification.	36.40	M ²	4,934.00
9	225.90 M ³	Painting new iron works such as steel doors, windows, ventilators, window bars, balustrades etc., with two coats of best approved first quality and colour of synthetic enamel paint over the existing red oxide priming coat in all floors excluding cost of priming coat etc., complete complying with standard specification. (The make, quality and colour of paint should be got approved by the Executive Engineer before use on works.)	165.00	M ³	37,274.00
10	36.14 M ²	Refilling the excavated soil for basement level filling using foundation cutting earth etc complete complying with standard specification.	44.34	M ²	1,602.00
11	LS	Transportation charges of chain link fencing and angles to the work site including loading and unloading etc; complete.	LS		15,000.00
		Sub Total			16,67,734.00
12	LS	GST at 18% (CGST at 9% + SGST at 9%) is leviable for any Government contract, whether Civil or Electrical, irrespective of the GST rate applicable on purchase of goods used in the execution of Government Contract.	LS		3,00,192.12
13	LS	Provision for Labour welfare fund 1.00%	LS		16,677.00
14	LS	Provision for unforeseen items of works such as painting and writing awareness sign boards, documentation & photographic charges etc.	LS		15,461.00
		Total			20,00,064.12

(Cost per 1RM = Rs.2000064/1000 = Rs. 2000/-)

Sl. No.	Quantity	Description	Rate	per	Amount
		Rate per 1RM for the year 2022-2023	=	Rs.	2,000.00
		Rate per 1RM for the year 2023-2024 (Add for 10% cost escalation)	=	Rs.	2,200.00
		Rate per 1RM for the year 2024-2025 (Add for 10% cost escalation)	=	Rs.	2,420.00


 District Forest Officer
 Dharmapuri Division
 Dharmapuri
 10/12/2023

Providing Chain link fencing (for 1000m) around Compensatory Afforestation over an area of 8.00Ha at Thoppur degraded Forest land of Dharmapuri range in Dharmapuri Forest Division during 2022-23

DETAILED ESTIMATE

Sl.No.	Description of work	No.	Length	Breath	Depth	Contents
1	Clearing the light jungle as per standard specification. Chain link fencing area	1 x 1	1000.00	2.00	-	2000.00 <u>2000.00</u> M ²
2	Earth work open excavation in SDR - (Not Requiring Blasting) Earth work excavating and depositing on bank with initial lead of 10 m & initial lift of 2m in Soft disintegrated rock, laterite, soft rock or kankar, not requiring blasting inclusive of shoring shuttering, bailing out water wherever necessary and depositing the excavated earth with a lead of 10 m'ts. in places shown by the departmental officers and clearing and levelling the site, etc., complete complying with standard specification. For Concrete Pillars (once in 2.40M) For supporting angles @ every 5 pillars (12.00m) in alternative sides.	1 x 418 1 x 84	0.60 0.60	0.60 0.60	0.60 0.60	90.29 18.14 <u>108.43</u> M ³
3	Cement Concrete 1:2:4 (One Cement, Two sand and Four hard broken stone jelly) using 20 mm gauge hard broken granite stone jelly for foundation including dewatering wherever necessary and laid in layers of not more than 15 cm thick, well rammed, consolidated and curing etc. complete complying with standard specification at clear distance of 2.40m centre to centre. For Concrete Pillars (once in 2.40M) For supporting angles @ every 5 pillars (12.00m) in alternative sides.	1 x 418 1 x 84	0.30 0.30	0.30 0.30	0.75 0.75	28.22 5.67 <u>33.89</u> M ³
4	Supplying and erecting steel centering including necessary supports for plane surfaces for Reinforced Cement Concrete works such as column footings, column pedestals, plinth beams, grade beams, staircase steps, etc. which require only nominal strutting using mild steel sheets of size 90cm x 60cm and 10 BG stiffened with welded mild steel angles of size 25mm x 25mm x 3 mm for boarding, laid over silver oak joists of size 10cm x 6.5cm spaced at about 75cm centre to centre or at suitable intervals etc. complete in all floors complying with standard specification. (Payment for centering shall be given after the concrete is laid) For Concrete Pillars (once in 2.40M) For supporting angles @ every 5 pillars (12.00m) in alternative sides.	4 x 418 4 x 84	0.30 0.30	- -	0.75 0.75	376.20 75.60 <u>451.80</u> M ²
5	Supplying and fixing in position of 2" x 2" x 1/4" (50.80 x 50.80 x 6.25mm) MS angles at a distance of 2.40m centre to centre and supporting angle for every 24.00m including cost and conveyance of materials and fixing in position including cutting and welding etc; complete complying with standard specification and as directed by the departmental officers.					

Sl.No.	Description of work	No.	Length	Breath	Depth	Contents
	For Concrete Pillars (once in 2.40M)	1 x 418	2.700	-	-	1128.60
	For supporting angles @ every 5 pillars (12.00m) in alternative sides.	1 x 84	2.700	-	-	226.80
						<u>1355.40</u> RM
	Steel calculation : (As per invoice)					
	For 7 Feet (or) 2.1336m length =	8.50	kg			
	For 1 metre length =	8.50	kg /	2.13	kg =	4.00
	Total weight =	1355.40	RM x	4.00	kg =	5421.60
						5421.60 kg.
6	Supplying and fixing in position of Chain Link 2" x 2" using 10 Gauge Galvanised Iron Wire (of all sizes) including cost and conveyance of all materials at site and labour for fixing including cost of binding wire etc. complete complying with standard specification.					
	Chain link fencing around CA area.	1 x 1	1000.00	-	1.830	1830.00
						<u>1830.00</u> M ²
7	Plastering with Cement mortar 1:5 (one cement and five sand) 12mm thick in all floors including mixing mortar, working in all heights including curing with all leads and lifts for good water etc., complete complying with TNBSS and as directed by the departmental officers.					
	Concrete Pillar around - AGL	4 x 418	0.30	-	0.15	75.24
	Concrete Pillar - Top	1 x 418	0.30	0.30	-	37.62
	For supporting angles @ every 5 pillars (12.00m) in alternative sides.	4 x 84	0.30	-	0.15	15.12
	Concrete Pillar - Top	1 x 84	0.30	0.30	-	7.56
						<u>135.54</u> M ²
8	White washing two coats using best freshly burnt shell lime and colouring pigments in all floors including cost of lime blue powder, fevical type gum brushes, scaffolding charges etc., complete complying with standard specification.					
	Concrete Pillar around - AGL	4 x 418	0.30	-	0.15	75.24
	Concrete Pillar - Top	1 x 418	0.30	0.30	-	37.62
	For supporting angles @ every 5 pillars (12.00m) in alternative sides.	4 x 84	0.30	-	0.15	15.12
	Concrete Pillar - Top	1 x 84	0.30	0.30	-	7.56
						<u>135.54</u>
9	Painting new iron works such as steel doors, windows, ventilators, window bars, balustrades etc., with two coats of best approved first quality and colour of synthetic enamel paint over the existing red oxide priming coat in all floors excluding cost of priming coat etc., complete complying with standard specification. (The make, quality and colour of paint should be got approved by the Executive Engineer before use on works.)					

Sl.No.	Description of work	No.	Length	Breath	Depth	Contents
	MS angles of size 2" x 2" x 1/4" (50.80 x 50.80 x 6.25mm)	2 x 418	2.250	-	0.100	188.10
	For supporting angles @ every 5 pillars (12.00m) in alternative sides.	2 x 84	2.250	-	0.100	37.80
						<u>225.90</u> M ²
10	Refilling the excavated soil for basement level filling using foundation cutting earth etc complete complying with standard specification.					
	1/3 rd Qty. of earth work (Item No.1)	1 x 1	108.43	/	3.00	36.14
						<u>36.14</u> M ³
11	Transportation charges of chain link fencing and angles to the work site including loading and unloading etc; complete.					LS
12	GST at 18% (CGST at 9% + SGST at 9%) is leviable for any Government contract, whether Civil or Electrical, irrespective of the GST rate applicable on purchase of goods used in the execution of Government Contract.					LS
13	Provsion for Labour welfare fund @ 1.00%					LS
14	Provsion for Unforeseen items of works such as Painting and writing awareness sign boards, Documentation & photographic charges etc.					LS


 District Forest Officer
 Dharmapuri Division
 Dharmapuri


 10/12/2023