

Abstract Model estimate for Raising Compensatory Afforestation over an area of 5 Ha of degraded Forest areaduring 2023-2024 under CAMPA Scheme

No.of Seedlings
For 10% Casualty
Replacement
TOTAL

5000 Nos @ 1000 Nos per)
500 Nos
5500 Nos

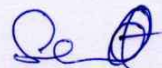
Sl.No	Description of Work	Proposed Estimate Cost in Rupees	Remarks
(1)	(2)	(3)	(4)
1	Raising Nursery - 5500 Nos	811504	1000 Numbers of Seedlings per Ha has been proposed
2	Planting operation = 5000 Seedlings	2650094	10% Weightage towards escalation of labour wages rate during 2024-2025
3	1 st Year Maintenance	1375162	20% Weightage towards escalation of labour wages rate during 2025-2026
4	2 nd Year Maintenance	1150054	30% Weightage towards escalation of labour wages rate during 2026-2027
5	3 rd Year Maintenance	1236058.6	40% Weightage towards escalation of labour wages rate during 2027-2028
6	4 th Year Maintenance	57000	50% Weightage towards escalation of labour wages rate during 2028-2029
7	5 th Year Maintenance	62700	60% Weightage towards escalation of labour wages rate during 2030-2031
8	6 th Year Maintenance	68970	70% Weightage towards escalation of labour wages rate during 2031-2032
9	7 th Year Maintenance	75867	80% Weightage towards escalation of labour wages rate during 2032-2033
10	8 th Year Maintenance	83454	90% Weightage towards escalation of labour wages rate during 2033-2034
11	9 th Year Maintenance	91799	100% Weightage towards escalation of labour wages rate during 2034-2035
12	10 th Year Maintenance	100979	110% Weightage towards escalation of labour wages rate during 2034-2035
	TOTAL Prorata for 5 Ha.	7763642	

Pro rata for 1 Ha area 1552728

or RS.15.53 Lakhs

Pro rata for 0.40 Ha area 621091

or Rs.6.21 Lakhs



**District Forest Officer,
Theni Forest Division,
Theni.**



12/07/2023

Model Estimate for Raising nursery for native tree species for Compensatory Afforestation over an area of 5.00 Hectare of Forest area during 2023-2024 under State CAMPA scheme

Total Area : 5 Hectare
Seedlings per Ha. : 1000 Nos/Ha
No. of Seedlings : 5000 Nos
10% Casualty : 500 Nos
Total : 5500 Nos

Size of Poly Bags = 13 x 25 x 250 Grams
Transplanting Size of Poly Bags = 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.,
Wages Rate 2023-2024= Rs.612.45

Sl.No	Qty	Unit	Name of Work	FSR/SSI	FSL	Rate	Per	Amount	
PART I -Small Size Poly Bags - 13x 25 Cm									
1	605	Sq.m	Preparation of Nursery site by clearing and levelling the site for forming standard bed of size 10m x 1m (110 Sq.m/1000 Nos)	4.1	2.42	1482.1	200	No	4483
2	11	Kgs	Cost of Seeds (2 Kgs / 1000 Nos)	As per M.E	-	250	1	No	2750
3	5500	Nos.	Cost of 13 x 25 cm x 250 G Polythene Bags	Tender Rate	-	961.7	1000	No	5289
4	17	Cu.m	Forming Generation Beds of Size 10 m x 1 m x 0.3 m by heaping the soil - 2500 Nos per Bed.	PWD SOR item W-0062	-	166.9	1	Cu.m	2837
5	2	Bed	Watering the germination bed twice daily with rose cans for 15 days	4.5.1	0.82	502.21	10	Beds/Day	1507
6	2	Bed	Watering the germination bed Once daily with rose cans for 15 days	4.5.2	0.41	251.1	10	Beds/Day	753
7	4.62	Cu.m	Collection and supply of Sand, Silt and red soil according to the requirement for preparation of Soil mixture - 3/4 th of the total Volume (0.84 Cu.m /1000 Nos).	As per M.E	-	750	1	Cu.m	3465
8	1.54	Cu.m	Cost and Transport of Form yard manure for filling bags - 1/4 th of the total Volume (0.28 Cu.m /1000 Nos).	As per M.E	-	750	1	Cu.m	1155
9	5500	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	2743.8	1000	Nos	15091
10	138	Kgs	Cost of Vermicasting @ 25 gram per seedlings	As per Research Wing Rate		10	1	kg	1380
11	55	Kgs	Cost of VAM @ 10 gram per seedlings			18	1	kg	990
12	28	Kgs	Cost of Azospirillum @ gram per seedlings	As per Research Wing Rate		27	1	kg	756
13	28	Kgs	Cost of phoshobacteria @ 5 gram per seedling			27	1	kg	756
14			Watering the container plants with rose cans -						
a	5500	Nos.	Twice daily - 15 days	4.10.4	0.23	140.86	1000	Day	11621
b	5500	Nos.	Once daily - 30 days		0.115	70.43			11621
c	5500	Nos.	Alternate days spread over 30 days (Effective days - 15)	4.11.4	0.115	70.43			5810
15	5500	Nos.	Cost of water for watering the container seedlings - 60 watering days	4.18.4 - FSR		0.85	1000	day	281

16	5500 73.33	Nos. Sq.m/ 3	Land rent @ 3000 bags/40 sq.m) - 3 months	4.17	LR	86	40 sq. m / month	473
17	5500	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	312.35	1000 shift	3436
SUB-TOTAL (A)								74454
PART II -Bigger Size Poly Bags - 30 Cm x 45 Cm x 600 g								
18	5500	Nos	Cost of 30 x 45 cm x 600 G Polythene bags	Tender rate		6584.4	1000 No	36214
19	50.77		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 13 x 25cm containers). (@ 9.23 Cu.m/1000 Nos)	As per M.E	-	750	1 Cu.m	38078
20	12.71		Cost and transport of Farm yard manure for filling bags - 1/5th of the total volume. (@ 2.31 CU.M/1000 Nos)	-	-	750	1 Cu.m	9533
21	5500		Preparation of soil mixture by breaking clods, sieving, mixing red soil, silt, and sand according to requirement asnd 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 seedinds (excluding cost of soil mixture and FYM)	4.6.7	28.57	17498	1000 Nos	96237
22	193		Cost of Vermicasting @ 35 gram per seedlings	As per M.E	-	10	1 Kg	1930
23	83		cost of VAM @ gram per seedlings	-	-	18	1 Kg	1494
24	33		cost of Azospirillum @ 6 gram per seedlings	As per M.E	-	27	1 Kg	891
25	33		cost of phoshobacteria @ 6 gram per seedlings	-	-	27	1 Kg	891
26	55		Labour cost for transplanting seedlings from 13 x 25cm containers bags in to 30 x 45cm containers - Maz. /1000	As per M.E	-	612.45	1 Nos	33685
27	5500		cost of vertical strick (Casurina poles 5 cm - cm girth and 2.50 m height for each plants)	PWD SS	-	17.5	1 Rm	240625
28	2750		Cost of horzondal strick (Casurina poles 5 cm - 8 cm girth and 1.00 height for each plants)	PWD SS	-	17.5	1 Rm	48125
29	5500		Typing plants to the vertical strick once in a month - 2 times	As per M	-	0.4	1 Each / Time	4400
30	5500		pruning side branches once in 2 months 2 times	As per M	-	1		11000
31			Watering the container plants with rose cans					
a	5500	Nos.	Twice daily - 15 days	4.10.7	0.56	342.97	1000 Day	28295
b	5500	Nos.	Once daily - 30 days	4.11.7	0.28	171.49	1000 Shift	28296
c	5500	Nos.	Once in alternate days- spread over 60 days (Effective days -30 days)	4.11.7	0.28	171.49	1000 Shift	28296
d	5500	Nos.	Twice in alternate days spread over 105 days (Effective days-30 days)	4.11.7	0.28	171.49	1000 Shift	28296
32	5500 440	Nos. m2/7 months	Land rent @ 500 bags/40 sq.m.)	4.17	LR	86	40 Sq.m/ month	6622
33	5500	Nos.	Shifting for container plants, weeding, grading and replacement of casualties in the bags - shfiting to done once in 21 days - 7 shift	4.15.7	2.69	1647.5	1000 shift	63428


34	5500	Nos.	Cost of water for watering the container seedlings - 105 watering days	4.18.4 - FSR		1.6	1000	day	924
35	1.00	Nos.	Nursery Protection mazdoors 1 No./100000 Nos. of Labour charges for application of pesticides - 2 times / month	As per M.E of MTP	1	612.45	1	100000 / M	10105
36			GST 18% (Item No.3, 18)						7471
37	5	Months	Provision for cost of pesticides and fungasides and Labour charges for application of pesticides - 2 times / month	L.R.	..	200	1	times	2000
38		L.S.	Photo & Documentation etc.,					L.S.	6000
39		L.S.	Contigencies unforeseen items					L.S.	4214
SUB-TOTAL (B)									737050
TOTAL (A + B)									811504


Raising cost of 5500 Seedlings = 811504
Cost for 1 Seedlings = Rs. 147.5 per seedling

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 5000 nos of seedlings has been proposed for 5.00 ha @ 1000/ha. with 10% of casualty 500 Nos. Totally 5500 Nos. of seedlings has been proposed.

The estimate has been prepared based on CAMPA model estimate, FSR, PWD SSR for the year 2023-24 and the local rate


District Forest Officer,
Theni Forest Division,
Theni.


12.07.2023

Model Estimate for planting of native tree species for Compensatory Afforestation over an area of 5.00 Hectare of degraded forest area during 2023-2024 under State CAMPA scheme

No. of Seedlings. : 5000 Hectare
10% Casualty : 1000 Nos/Ha
Total : 5000 Nos

Size of Poly Bags = 13 x 25 x 250 Grams
Wages Rate 2023-2024 = 612.45

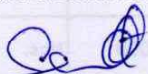
Sl.No	Qty	Unit	Name of Work	FSR/S	FSL	Rate	Per	Amount
PART I -Small Size Poly Bags - 13x 25 Cm								
1	5000	Nos.	Aligning and Marking in plantation area	5.2.4	1.38	845.18	100	Nos. 42259
2	5000	Nos.	Digging of 60 CM3 pits in all types of soil during non rainy season	5.8.1	9.26	5671.29	100	Nos. 283565
3	5000 360	Nos. No.	Cost & transport of Farmyard manure each plants 0.60x0.60x0.20-0.072m3/pit	Lowest quotation	..	750	1	M3 270000
4	5000	Nos.	Application of Farm yard manure by mixing in the pit before planting -1 mazdoor for 200 Nos.	FSR Wage rate	1	612.45	200	Nos. 15311
5	5000	Nos.	Cost of Bio fertilizer including cost of application - Vermcompost -1 Kg. Bio Fertilizers - 100 gms, VAM-100 gms	NHAI ME	..	7.7	1	No. 38500
6	5500	Nos.	Transporting saplings (transported to the radius of 40 kms) excluding loading and unloading by Private Vehicle	NHAI ME	..	7	1	No. 38500
7	5500	Nos.	Loading & unloading the container seedlings (30x45 cm) in private lorry upto a lead of 2 Kms. (Excluding hire charges for the vehicles)	5.11.7	3.29	2014.96	1000	Nos. 11082
8			Distribution of saplings from where seedlings are stocked to the planting spot in plains upto 500 mts.					
a	2200	Nos.	Upto 100 mts.	5.15.1	10	6124.50	1000	Day 13474
b	2200	Nos.	Upto 200 mts.	5.15.2	17.5	10717.88	1000	Day 23579
c	1100	Nos.	Upto 500 mts.	5.15.3	41	25110.45	1000	Day 27621
9	5000	Nos.	Planting the container plants by refilling pits of size 60 cm	5.22	1.71	1064.39	100	Nos 53220
10	12500	RM	Provision of vertical casurina poles 5 cm. to 8 cm. 2.50 mtr. Ht. per plant	PWD SSR		17.5	1	RM 218750
11	500	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	2364.06	100	Nos 11820
12	5000	Nos.	Scraping for 1 m dia and soil working 15 cm. depth around each plants and removing the grass roots away from the size of upturning the soil	5.24	1.23	753.31	100	Nos 37666
13	5000	Nos.	Forming catch water drains for each plant of 90x45x30 cm. size in hillocks and hard gravelly soil	5.26	6.84	4189.16	100	Nos 209458
14	5000	Nos.	Providing Brush wood fencing around each plants	..	0.25	122.06	1	No. 610300
15	5000	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-		612.45	200	Nos. 229669
16	1500000	Ltrs	Cost of water @ 20 liter per seedlings 15 watering days (5000 x 20x15 = 1500000 Ltrs.)	NHAI ME		1200	12000	Lts. 150000


17	1	Nos.	Plantation Protection mazdoors from October to March - 180 m. days	Wage rate	1	612.45	1	Man day	110241
18	5000	Nos	Removing /scrapping vizal monsoon or bothai grass for one meter dia around the plants	5.27	0.21	130.71	100	Nos.	6536
19	5	Months	Provision for cost of pesticides and fungasides and Labour charges for application of pesticides - 2 times / month	L.R.	..	200	1	times	2000
20	L.S.		Photo & Documentation etc.,			L.S.			3000
21	L.S.		Contingencies and unforeseen expenditure to be restricted to as per actuals.			L.S.			2625
TOTAL									2409176
Add 10% of escalation									240918
Total prorate									2650094

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 5000 nos of seedlings has been proposed for 5.00 ha @ 1000/ha. with 10% of casualty 500 Nos. Totally 5500 Nos. of seedlings has been proposed.

The estimate has been prepared based on CAMPA model estimate, FSR, PWD SSR for the year 2023-24 and the local rate


District Forest Officer,
Theni Forest Division,
Theni.


12.07.2023

**Model Estimate for 1st year maintenance of CA plantation over an area of 5.00 Ha. During 2023-2024 under
CAMPA scheme**

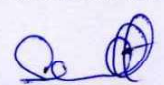
No. of Seedlings planted : 5000
No. of seedlings for casualty : 500 (10% replacement)

Size of Poly Bags = 30 x 45 x 600g,
Wages Rate = Rs. 612.45

Sl.No	Qty	Unit	Name of Work	FSR/SSR	FSL	Rate	Per	Amount
A. NURSERY OPERATION								
1	500	No.	Raising cost of seedlings in 30x45 size polythene bags (As per nursery estimate)	As per nursery estimate	..	147.546	1 No.	73773
TOTAL (A)								73773
B. PLANTING OPERATION								
1	500	Nos.	Cost & transport of Farmyard manure each plants 0.60x0.60x0.20 = 0.072m3/pit	Lowest	..	750	1 M3	27000
2	36	M3						
2	250	Nos.	Application of Farm yard manure by mixing in the pit before planting -1 mazdoor for 200 Nos.	FSL Wage rate	..	612.45	200 Nos.	766
3	500	Nos.	Transporting saplings (transported to the radius of 40 kms) excluding loading and unloading by Private Vehicle	NHAI ME	..	7.00	1 No.	3500
4	500	Nos.	Loading & unloading the container seedlings (30x45 cm) in private lorry upto a lead of 2 Kms. (excluding hire charges for the vehicles)	5.11.7	3.29	2014.96	1000 Nos.	1007
5			Distribution of saplings in the site C.plants upto 500 mts. - in plains					
a	200	Nos.	Upto 100 mts.	5.15.1	10	6124.50	1000 Day	1225
b	200	Nos.	Upto 200 mts.	5.15.2	17.5	10717.88	1000 Day	2144
c	100	Nos.	Upto 500 mts.	5.15.3	41	25110.45	1000 Day	2511
6	500	Nos.	Replacement of casualties by reopening failed pits and planting the seedlings	5.23	5.57	2719.55	100 Nos	13598
7	5000	Nos.	Scraping for 1 m dia and soil working 15 cm. depth around each plants and removing the grass roots away from the size of upturning the soil	5.24	1.23	753.31	100 Nos	37666
8	5000	Nos.	Cost of Bio Fertilizers including cost of application Vermi-campose 1 Kg., Bio fertilizer-100 gms., VAM - 100 Gms	NHAI ME		7.7	1 No.	38500
9	3000000	Ltrs	Cost of water @ 20 liter per seedlings 30 watering days (5000 x 20x30 = 3000000 Lts.)	NHAI ME		1200	12000 Lts.	300000
10	5000	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)	CAMPA ME	0.28	612.45	200 Shift	459338
11	1.00	Nos.	Engaging Protection mazdoor @ 1 Mazdoor from April to March - 12 months (25 days/ Month)	FSR wage rate	..	612.45	1 No.	183735
12		L.S.	Contingencies and unforeseen expenditure to be restricted to as per actuals.			L.S.		1205
TOTAL (B)								1072195
TOTAL (A+B) Prorata for 1st year maintenance								1145968
Add 20% of escalation for 2nd year								229194
Total prorate								1375162

Specifications:

The estimate has been prepared based on CAMPA model estimate, FSR, PWD SSR for the year 2023-24 and the local rate


District Forest Officer,
Theni Forest Division,
Theni.

12.07.2023

Model Estimate for 2nd year maintenance of CA plantation over an area of 5.00 Ha. During 2023-2024 under CAMPA scheme

No. of Seedlings : 5000 Nos
 planted
 Survival 100% : 5000 Nos

Wages Rate = Rs. 612.45
 2023-2024

Sl.No	Qty	Unit	Name of Work	SR/SS	FSL	Rate	Per		Amount
1	5000	Nos.	Scraping for 1 m dia and soil working 15 cm. depth around each plants and removing the grass roots away from the size of upturning the soil	5.24	1.23	753.31	100	Nos	37666
2	5000	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.	38500
3	3E+06	Ltrs	Cost of water @ 20 liter per seedlings 30 watering days (5000 x 20x30 = 3000000 Ltrs.)	NHAI ME		1200	12000	Lts.	300000
4	5000	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)	CAMPA ME	0.28	612.45	200	Shift	459338
5	1.00	Nos.	Engaging Protection mazdoor @ 1 Mazdoor (3 months (25 days/ Month)	FSR wage rate	..	612.45	1	No.	45934
6		L.S.	Contingencies and unforeseen expenditure to be restricted to as per actuals.			L.S.			3219
Total prorate									884657
Add 30% of escalation									265397
Total prorate 2nd year maintenance									1150054

Specifications:

The estimate has been prepared based on CAMPA model estimate, FSR, PWD SSR for the year 2023-24 and the local rate


District Forest Officer,
Theni Forest Division,
Theni.

B. J.
 12.07.2023

Model Estimate for 3rd year maintenance of CA plantation over an area of 5.00 Ha. During 2023-2024 under CAMPA scheme

No. of Seedlings : 5000
planted
Survival 100% : 5000


Wages Rate = Rs. 612.45
2023-2024

Sl.No	Qty	Unit	Name of Work	FSR/ SOR	FSL	Rate	Per		Amount
1	5000	Nos.	Scraping for 1 m dia and soil working 15 cm. depth around each plants and removing the grass roots away from the size of upturning the soil	5.24	1.23	753.31	100	Nos	37666
2	5000	Nos.	Cost of Bio Fertilizers including cost of application Vermi-campos 1 Kg., Bio fertilizer-100 gms., VAM - 100 Gms	NHAI ME		7.70	1	Kg.	38500
3	3E+06	Ltrs	Cost of water @ 20 liter per seedlings 30 watering days (5000 x 20x30 = 3000000 Lts.)	NHAI ME		1200	12000	Lts.	300000
4	5000	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)	CAMPA ME		612.45	200	Shift	459338
5	1.00	Nos.	Engaging Protection mazdoor @ 1 Mazdoor (3 months (25 days/ Month)	FSR wage rate	..	612.45	1	No.	45934
6	L.S.		Contigencies and unforeseen expenditure to be restricted to as per actuals.			L.S.			1461
Total prorate									882899
Add 40% of escalation									353159.6
Total prorate 3rd year maintenance									1236059

Specifications:

The estimate has been prepared based on CAMPA model estimate, FSR, PWD SSR for the year 2023-24 and the local rate


**District Forest Officer,
Theni Forest Division,
Theni.**


12.07.2023

Model Estimate for 4th year maintenance of CA plantation over an area of 5.00 Ha. During 2023-2024 under CAMPA scheme

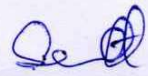
No. of Seedlings : 5000
planted
Survival 100% : 5000


Wages Rate = Rs. 612.45
2023-2024

Sl.No	Qty	Unit	Name of Work	SR/SSI	FSL	Rate	Per		Amount
1	5000	Nos.	Scraping for 1 m dia and soil working 15 cm. depth around each plants and removing the grass roots away from the size of upturning the soil	5.24	1.23	753.31	100	Nos	37666
2	L.S.		Contigencies and unforeseen expenditure to be restricted to as per actuals.	L.S.					334
Total prorate									38000
Add 50% of escalation									19000
Total prorate 4th year maintenance									57000
Add 10% of escalation for 5th year									5700
Total prorate 5th year maintenance									62700
Add 10% of escalation for 6th year									6270
Total prorate 6th year maintenance									68970
Add 10% of escalation for 7th year									6897
Total prorate 7th year maintenance									75867
Add 10% of escalation for 8th year									7587
Total prorate 8th year maintenance									83454
Add 10% of escalation for 9th year									8345
Total prorate 9th year maintenance									91799
Add 10% of escalation for 10th year									9180
Total prorate 10th year maintenance									100979

Specifications:

The estimate has been prepared based on CAMPA model estimate, FSR, PWD SSR for the year 2023-24 and the local rate


**District Forest Officer,
Theni Forest Division,
Theni.**


12.07.2023