

Full Title of the Project : Formation of road Vadugam to Kilur, Melur Km.0/0 to 23/625 through Mallur Reserved Forest of Namakkal Forest Division.

File No. : FP/TN/Road/19579/2016

Date of Proposal :

SCHEME FOR COMPENSATORY AFFORESTATION

Detailed scheme for Compensatory Afforestation to be carried out in lieu of 5.96 Ha of forest area to be diverted for Formation of road Vadugam to Kilur, Melur Km.0/0 to 23/625 through Mallur Reserved Forest of Namakkal Forest Division in Namakkal District.

1. Details of degraded forest land / non-forest land:

District : Namakkal
Village : 73, Mangalapuram
Village : Rasipuram
Name of Forest Division : Namakkal
Range : Mullukurichi

Block / compartment / Survey No. 324/1
Area to be afforested 12.15 Ha.

2. Description of Area

I) Whether the site selected the for Compensatory Afforestation is a land bank or not : No.

II) If the CA site is other than the land bank, reasons to be given :

There is no land bank has been created in Namakkal District. Hence the area identified by the user agency on consultation, and consent of the District Administration.

III)

In case of non forest area : Identified CA land is located 3 Km from the South West side of Oilpatti Reserved Forest.
identified for CA. then what is the distance of CA site from the adjoining forest boundary

IV) Soil type : Hard rock.

V) Topography :
a) Hilly / undulating / Plain Hilly.
b) Slope : Steep / Medium / Gentle Steep.

VI) Whether the area is bearing any root stock of vegetation: Yes.

3) Plantation Model:

Copy of the approved Compensatory Afforestation
Scheme / Model showing component wise physical and
financial break up to be enclosed : Enclosed.

4) Schedule of Plantation Programme:-

Detail of year wise break up of requirements of funds is as under :-
Year Area in Ha. Rate / Ha. year.

YEARWISE COMPONENTWISE ABSTRACT DETAILS OF COMPENSATORY AFFORESTATION						
Sl. No.	Year	Type of Activity	Qty	Unit	Rate per unit	Amount (Rs.)
1	1 st year	During -1st year				
2		Advance Nursery Works	12.15	ha	115600	1404537
2	2 nd year	During - 2 nd year				
i.		Maintenance of Nursery during next year till planting	12.15	ha	40000	486004
ii.		Planting	12.15		329900	4008282.8
iii.		Preparation of plantation with "L" angle with turbed wire 1500 Rm @ 1250 per RM	12.15	ha	1760	2536160
iv.		MAINTENENCE				
3	3 rd year	During-3 rd year (1 st year maintenance)	12.15	ha	215000	2612251
4	4 rd year	During-4 th year (2 st year maintenance)	12.15	ha	14000	170100
5	5th year	During-5 th year (3rd year maintenance)	12.15	ha	15400	187110
6	6 rd year	During-6 th year (4th year maintenance)	12.15	ha	16940	205821
7	7 th year	During-7 th year (5 st year maintenance)	12.15	ha	18634	226403
8	8th year	During-8 th year (6th year maintenance)	12.15	ha	20497	249043
9	9th year	During-9 th year (7th year maintenance)	12.15	ha	22547	273948
		Documentation & Publicity and Monitoring		LS		15670
		TOTAL and demarcation of C.A. land with boundary stone pillars				12375330

5. Technical details:-

Technical details to compensatory Afforestation scheme are as follows

Sl. No.	Details required	:	Details furnished
a.	General details	:	As the CA areas is adjacent to Oilpatti Reserved Forest, it is easy for protection etc.,
b.	Spacing	:	Gap Planting
c.	Species	:	Miscellanies such as Pungan, Neem, Noval and indigenous species.
d.	Plantation mode	:	Gap Planting.
e.	Soil and Moisture Conservation Works	:	Nil. As there is no gullies / Nallas to take up any construction of checkdam / percolation pond.
f.	Protection (Fencing, Watch man, People's participation etc.,)	:	As the area is prone for grazing the plantation area has been proposed to be fenced with chainlink with "L" angel poles.
g.	Proposed Monitoring Mechanism	:	This work will be monitored by District Forest Officer / CCF and also by the FEEMAS wing of the Department. Besides above it is being monitored through External agency.
h.	Any other information	:	In the identified CA land 1000 plants per ha. is not possible to be planted. Hence, it is proposed to plant at the rate of 500 Nos. per ha. in the CA land and balance 500 Nos. per ha. will be planted in the degraded forest in Oilpatti Reserved Forest which is abutting the CA land.


District Forest Officer,
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1	1st year	During – 1st year				
		Advance Nursery Works	12.15	ha	115600	1404537
2	2nd year	During – 2nd year				
i		Maintenance of Nursery during next year till Planting	12.15	ha	40000	486004
ii		Planting	12.15		329900	4008282.8
iii		Protection of Plantation with L angle barbed wire 1,441 Rm @1760per RM For fencing around 12.15 Ha.	12.15	ha	1760	2536160
		MAINTENENCE				
3	3rd year	During– 3 rd year (1 st year maintenance)	12.15	ha	215000	2612251
4	4th year	During – 4 th year (2 nd year maintenance)	12.15	ha	14000	170100
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9	9th year	During 9 th year (7th year maintenance)	12.15	ha	22547	273948
10		Documentation & Publicity and Monitoring		LS		15670
		TOTAL				12375330


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 Namakkal Forest Division
 Namakkal

**ESTIMATE FOR RAISING OF SEEDLINGS IN 35X50CM BAGS BY
TRANSPLANTING SEEDLINGS RAISED IN 13X25 CM BAGS (ADVANCE
NURSERTY OPERATIONS)FOR 1100 NOS(per HA)
including casualty replacement**

Sl.No	Qty	Description of works	FSR item no.	Rate	Per	Amount
RAISING IN 13X25CM BAGS						
1	175	Preparation of nursery site by clearing and leveling the site for forming standard bed of size 10mX1m @ 20.80m ² per 1000 Nos.For16x30cm Bags and @53.81m ² per 1000 For 30x45cm bags	4.1	790.13	200M ²	691
2	2	Cost of seeds @ 2Kg. Per 1000 Nos.	LR	150	KG	300
3	1/4 M ³	Formation of germination bed by breaking clods with farm yard manure and earth, forming nursery beds of size 10mX1mX30cm. With side support sowing of seeds, watering for the day and covering with straw inculding cost of manure @ 1000 No./bed.- 3M ³ for one bed	PWDSSR	63.60	M ³	254
4	1	Watering the germination beds twice daily with rose cane - 15days	4.5.1	267.73	1000	402
5	1	Watering the germination beds once daily with rose cane - 15days	4.5.2	133.87	1000	201
6	1100	Cost of polythene bags of size 13x25cm - 200G	Tender Rate	656	1000	722

7	1.181	Collection and supply of RedSoil, sand and silt for filling in Polythene bags according to the requirement for preparation of Soil mixture - 4/5th of the total volume	MTP ME	750.00	M ³	886
8	0.297	Collection and supply of Farmyard Manure for filling - 1/5th of the total volume.	MTP ME	750.00	M ³	223
9	1100	Preparation of soil mixture by breaking clods. Siveing and mixing of fertile earth (inculding red soil, silt and sand etc., according to requirements) and farm yard manure at 4:1 ratio heaping at the filling site and filling in polythene bags, arranging bags in beds and pricking out the seedlings (excluding cost of soil mixture and FYM)	4.6.4	1462.72	1000	1609
10	1100	Watering the container seedlings with rose can twice daily - 13x25cm (15 days)	4.10.4	75.10	1000	1239
11	1100	Watering the container seedlings once daily with rose can - 13x25cm (30 days)	4.11.4	37.55	1000	1239
12	1100	Watering the container seedlings once in alternate days with rose can - 13x25cm bags (15 days)	4.11.4	37.55	1000	620
13	1100	Cost of water for watering the container seedlings from private wells 75 days	MTP ME	0.85	1000	70
14	1100	Shifting the container plants weeding, grading and replacement of casualties in the bags (2 time) as per requirements	4.15.4	166.52	1000	366

Part -II (Bigger size bags (35x50cm x 600g)						
15	1100	Cost of 35x50cmx600g poly bags	Tender Rate	10080	1000	11088
16	10.15	Collection and supply of RedSoil, sand and silt for filling in Polythene bags according to the requirement for preparation of Soil mixture - 4/5th of the total volume (excluding volume of 13x25cm bags) 35x50cm poly bags volume = $9.23\text{m}^3 / 1000 \text{ Nos}$	MTP ME	750.00	M^3	7615
17	2.541	Collection and supply of Farmyard Manure for filling 35x50cm bags - 1/5th of the total volume ($2.31\text{m}^3/1000\text{nos}$).	MTP ME	750.00	M^3	1906
18	1100	Preparation of soil mixture by breaking clods. Sieving and mixing of fertile earth (including red soil, silt and sand etc., according to requirements) and farm yard manure at 4:1 ratio heaping at the filling site and filling in polythene bags, arranging bags in beds and pricking out the seedlings (excluding cost of soil mixture and FYM)	4.6.8	12080.50	1000	13289
19	110	Cost of Vermicasting @ 100 gm / container seedlings	Research wing rate	10	Kg	1100
20	44	Cost of Vam @ 40 gm per seedlings	Research wing rate	18	Kg	792
21	11	Cost of Bio- fertilizers such as Azospirillum at 10gm / container seedlings	Research wing rate	27.00	Kg	297
22	11	Cost of Phaospobacteria @ 10 gm per container seedlings	Research wing rate	27.00	Kg	297

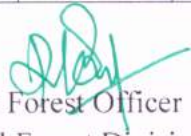
23	3.9	Labour cost for transplanting seedlings from 13x25cm to 35x50cm containers - 3.5 maz/1000	FSR	326.50	day	1257
24	1100	Cost of Vertical sticks of size 2.5m Ht.	MTP ME	6.00	each	6600
25	550	Cost of Horizontal stick	MTP ME	1.00	each	550
26	1100	Tying plants to the vertical stick once in a month - 2 times	MTP ME	0.20	each	220
27	1100	Pruning side branches once in two months - 2 times	MTP ME	1.00	each	1100
28		Watering the container seedlings with rose can - watering regime as per the NHAI M.E approved in Principal Chief Conservator of Forests's ref. No. J1/57395/2003, dt. 12.12.2003				
A	1100	Twice daily - 60 days	4.10.8	280.79	1000	18532
B	1100	Once daily - 139 days	4.11.8	140.40	1000	21466
	1100	Shifting the container once in 21 days. First shift after 45 days from the date of transplanting - 6 time.	4.15.8	1230.91	1000	8124
32	1100	Cost of water for watering the container seedlings from private wells 199 days	MTP ME	1.60	1000	350
33	175	Land rent for keeping nursery in private land	MTP ME	86.00	40m2	2258
34	27	Nursery Protection mazdoor to watch and ward the nursery and for application of manure etc.,- 1 Mazdoor - 274 days for 100000 seedlings	FSR	326.50	maz	8816

35	LS	Contingencies for application of pesticides and panchagavya etc.,	LS			1122
		Grand Total			Rs.	115600


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**ESTIMATE FOR MAINTENANCE OF SEEDLINGS IN 35X50CM BAGS FOR 1100 NOS
(per Ha)**

Sl.No	Qty	Description of works	FSR item no.	Rate	Per	Amount
1	1100	Tying plants to the vertical stick once in a month - 2 times-8 TIMES	MTPME	0.20	each	1760
2	1100	Pruning side branches once in two months - 2 times		1.00	each	2200
3		Watering the container seedlings with rose can - watering regime as per the NHAI M.E approved in Principal Chief Conservator of Forests's ref. No. J1/57395/2003, dt. 12.12.2003				
	1100	Once daily - 120 days	4.11.8	140.40	1000	18532
4	1100	Shifting the container once in 21 days. First shift after 45 days from the date of transplanting - 4 time.	4.15.8	1230.91	1000	5416
5	1100	Cost of water for watering the container seedlings from private wells 120 days	MTP ME	1.60	1000	211
6	175	Land rent for keeping nursery in private land	MTP ME	86.00	40 M ²	1505
7	24	Nursery Protection mazdoor to watch and ward the nursery and for application of manure etc.- 1 Mazdoor - 240 days for 100000 seedlings	FSR	326.50	Maz	7836
8	LS	provision for application of fungicides & fertilizers				2500
9	LS	Contingencies for application of pesticides and panchagavya etc.,	LS			40
		Grand Total			Rs.	40000


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MODEL ESTIMATE FOR PLANTING TALLER SEEDLINGS RAISED IN 35X50 CM BAGS

Espacement			GAP PLANTING @ 1000 seedlings per Ha				
Size of Pits		:60 cm ³					
Sl. No	Qty	Description of Works	FSR No.	Rate	Per / Qty		Amount
1	1000	Aligning and Marking	5.2.1	450.57	1000	Nos	451
2	785	clearing the spot for planting by removal of weeds and grass etc..to a dia of m-1000x3.14x0.5x0.5=785m2	PWDSSR	3.95	1	M ²	3101
3	1000	Digging of 60cm3 pits in all type of soil during rainy / non rainy season 9.60 MD	5.8.2	2520.58	100	Nos.	25206
4	40.5	Collection and supply of Farmyard manure 1/4 of the pit (0.6x0.60x0.60/4x1000) = 40.5M ³	Local rate	800.00	1	M ³	32400
5	20	Application charges for FYM for 60 cm ³ @ 1 Maz / 50Nos	Wage rate as per FSR	326.50	1	No	6530
6	1000	Cost of Bio fertilizer including cost of application - Vermicompost - 1 Kg Bio fertilizer - 100gm VAM - 100gm	NHAI & MTP ME	7.70	1	Nos	7700
7	1100	Transporting saplings (Transported to the radius of 40 kms) excluding loading and unloading	NHAI & MTP ME	7.00	1	No	7700
8	1100	Loading and Unloading the container seedlings (35x50 cm) in private / department vehicles (excluding hire charges)	5.11.8	1152.55	1000	Nos	1268
9	1100	Transporting of polythene container seedlings by headloads in the places where approach roads are not available to take vehicles to planting site. UP TO 0.5KM	5.13.2	13060.00	1000	Nos	14366

10	1100	Distribution of saplings from where seedlings are stocked to the planting spot upto 500 mts	5.16.3	21875.50	1000	Nos	24063
11	1000	Planting the container seedlings by filling the pits of size 60 cm ³	5.22	558.32	100	Nos	5583
12	1000	Forming catchwater drains for each plant of 90 x 45 x 30cm size in hillocks and hard gravelly soil.	5.26	2233.26	100	Nos	22333
13	1000	Scrapping 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	421.60	100	Nos	4216
14	100	Replacement of casualties by reopening failed pits and planting the seedlings (1/2 pitting rate - full planting rate)	5.23	1260.29	100	Nos	1260
15	1000	Mulching the planted seedlings at 500 gms coconut coir pith per pit	Local rate	10.00	1	No.	10000
16	2500	Provision of vertical casurina poles to the planted seedlings 2.50 mts ht. per plant(1000X2.5=2500)	PWD SSR	16.70	1	RM	41750
17	175	Watering the plants in the day of planting (One watering) and once in 7 days during Aug to Sep and Jan to Mar one mazdoor for 200 plants / watering day (35 watering days) 700 Man days	NHAI ME	324.25	Madoor	Nos	56744
18	525000	Cost of Water @ 15 Litres per seedlings (35 watering days) at twice in a week (15x35x1000) = 525000 Litre	NHAI ME	1200	12000	Litre	52500
19	20	Engaging Protection mazdoor @ 1 Mazdoor August to March @ 25 days per month - 200 days (Maz) for 10ha. So for 1Ha 20 mandays	FLS wages rate	324.25	Madoor	days	6485
20	LS	Provision of information board and publicity boards					5000

21	Ls	Contingencies and unforeseen expenditure to be restricted to as per actuals					1245
		TOTAL					329900



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ESTIMATE FOR I st YEAR MAINTENANCE OF PLANTATION-- 1 HA

NO of plants planted			1000			
No of seedlings proposed for casualty replacement			100			
Sl. No	Qty	Description of works	FSR item no.	Rate	Per	Amount
1		Raising cost of 35x50cm size container seedlings				
a	100	advance nursery	As per ME	115	each	11500
b	100	maintenance till planting	As per ME	40	each	4000
2	5.4	Collection and supply of Farmyard manure 1/4 of the pit (0.6x0.60x0.60/4x100) = 5.4M ³	Local rate	750.00	M ³	4050
3	2	Application charges for FYM for 60 cm ³ @ 1 Maz / 50Nos	Wage rate as per FSR	326.50	No	653
4	100	Cost of Bio fertilizer including cost of application - Vermicompost - 1 Kg Bio fertilizer - 100gm VAM - 100gm	NHAI & MTP ME	7.70	Nos	770
5	100	Transporting saplings (Transported to the radius of 40 kms) excluding loading and unloading	NHAI & MTP ME	7.00	Nos.	700
6	100	Loading and Unloading the container seedlings (35x50 cm) in private / department vehicles (excluding hire charges)	5.11.8	1152.55	Nos.	115
7	100	Distribution of saplings from where seedlings are stocked to the planting spot upto 100 mts	5.13.2	13060.00	Nos	1306
8	100	Replacement of casualty by reopening the failed pits of 60 cm 3 pits and Planting the container plants by refilling pits of size 60 cm	5.23	1260.29	Nos	1260

9	1000	Scraping for 1 m dia and soil working 15 cm depth around each plants and removing the grass roots away from the site of upturning the soil	5.24	401.6	Nos	4016
10	100	Mulching the planted seedlings at 500 gms coconut coir pith per pit	Local rate	10.00	no	1000
11	250	Provision of vertical casurina poles to the planted seedlings 2.50 mts ht. per plant (100X2.5=250)	PWD SSR	16.7	Rm	4175
12	270	Watering the plants in the day of planting (One watering) and once in 7 days during April to Sep 19 and Jan to Mar one mazdoor for 200 plants / watering day (54 watering days)	NHAI ME	324.25	Nos	87548
13	810000	Cost of Water @ 15 Litres per seedlings 54 watering days) at twice in a week (15x54x1000) = 810000 Litre	NHAI ME	1200	12000 Litre	81000
14	30	Engaging Protection mazdoor @ 1 Mazdoor April to March @ 25 days per month - 300 days (Maz) for 10Ha so the mandays for 1 ha is 30mdays	FSL wage rate	326.50	day	9795
15	LS	Contingencies and unforeseen expenditure including documentation etc....	LS			3112
		Total				215000

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ESTIMATE FOR IInd YEAR MAINTENANCE OF PLANTATION-- 1 HA

NO of plants planted			1000				
Sl. No	Qty	Description of works	FSR Item no.	Rate		Per	Amount
1	1000	Scraping for 1 m dia and soil working 15 cm depth around each plants and removing the grass roots away from the site of upturning the soil	5.24	401.60	100	Nos	4016
2	30	Engaging Protection mazdoor @ 1 Mazdoor April to March @ 25 days per month - 300 days (Maz) for 10Ha . So for 1 ha 30mandays	FLS wages rate	326.5	each	day	9795
3	LS	Contingencies and unforeseen expenditure including documentation etc....	LS				189
		Total					14000


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