

TAMILNADU FOREST DEPARTMENT

From

Thiru. M.Mahendran, I.F.S.,
District Forest Officer,
Tirupattur Division,
Tirupattur – 635 601

To

The Administrative Officer,
Indian Institute of Astrophysics,
Block II, Koramangala,
Bengaluru,
Pin code - 560034

C.No. 9057/1995/D dt. 15.05.2026

Sir,

Sub : Forest (Conservation) Act 1980 - Vellore Forest Circle/Tirupattur Forest Division – Proposal for renewal of lease for diversion of 40 ha of Forest land for Vainu Bappu observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills in Tirupattur Forest Division in Vellore District – Recommendation for the renewal of the lease - stage I approval accorded – Revised Demand Notice- issued – reg.

- Ref : 1) Online application uploaded by the User Agency dt. 22.01.19 Re-submission of 27.03.19 & 25.04.2019 proposals uploaded by the User Agency on 19.06.19 uploading of acknowledgement received from the officers
- 2) Government of India, Ministry of Environment & Forests, Regional Office (Southern zone), Bangalore No. F.No.4-TNC067/2020-CHN/1015 dated 21.10.2021
- 3) Principal Chief Conservator of Forests (HoFF), Chennai C.No.TS3/38628/18 dt. 26.10.2021
- 4) Principal Chief Conservator of Forests (HoFF), Chennai C.No.TS3/38628/18 dt. 22.09.2023
- 5) Government of India, Ministry of Environment & Forests, Regional Office (Southern zone), Bangalore No. F.No.4-TNC067/2020-CHN/1119 dated 23.09.2023
- 6) Principal Chief Conservator of Forests (HoFF), Chennai C.No.TS3/38628/18 dt. 27.11.2023 & 07.05.2026
- 7) Chief Conservator of Forests, Vellore Circle ref.no. 2548/2017 dated 21.02.2022 & 12.08.2024
- 8) Principal Chief Conservator of Forests (HoFF), Chennai Ref no .WL5/4263/2025 dt. 11.01.2026

I wish to state that kind attention is invited to the reference 1st and 2nd cited above. As per the guidelines issued vide reference 5th, 6th, 7th and 8th cited above, the demand notice for the forest area to be diverted 40 ha for Vainu Bappu observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills through Inner Jawadhi Reserved Forests of Alangayam Range is as follows for necessary followup action. I request that, the conditions and intructions may be complied and furnished to this office for submitting the compliance report to the Principal Chief Conservator of Forests (HoFF), Chennai at an early date.

SL. No.	Conditions stipulated by Government of India	Demand
i)	The total forest area diverted under this proposal is 40ha or 100 acres, whereas the actual area under the possession of the User Agency is about 10 acres only. the user agency is required to carry out extensive plantation of indigenous species as recommended by the FAC in the remaining forest land under the control of the institute (i.e. 90acres) and State Forest Department shall extend support in selection of indigenous species and monitor to ensure successful implementation: The State Forest Department shall prepare a CA Scheme for the above planting. In case it is not possible to plant at the rate of minimum of 400 plants per ha on the forest land, then the balance plants shall be planted on nearby degraded forest land as per working plan prescriptions. The CA scheme in this regard shall be prepared and submitted before final approval.	The User Agency have to deposit an amount of Rs.55,69,586 (Rupees fifty five lakhs sixty nine thousand five hundred and eighty six only) The User Agency requested to generate challan for making payment through on-line and make payment to CAMPA fund only through web portal
ii)	The state Forest Department shall prepare suitable wildlife mitigation and SMC plan and implement the at the project cost	The User Agency have to deposit an amount of Rs.43,37,000/- (Rupees Forty three lakhs thirty seven thousand only) for Construction of Forest pond proposed for Wildlife mitigation plan(Rs 15,10,000/-) (2 Nos x Rs 530000 per unit), Monkey rescue case with centre partition

		detable type (2 Nos x Rs 100000) per unit, Wild boar Rescue cage with centre partition detachable type (1 Nos x Rs 250000) and Construction of Checkdam 1 no and Perculation pond 1 no proposed for SMC Works(Rs 28,27000/-) Checkdam 1 no x Rs 13,65,000/- & Perculation pond 1 no x Rs 14,62,000/-) The User Agency requested to generate challan for making payment through on-line and make payment to CAMPA fund only through web portal .The User agency shall furnish an undertaking to this effect in five copies.
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After receipt of the compliance report on above mentioned conditions the proposal will be considered for final approval. The in-principle approval shall be valid for a period of 5 years from the date of issue of this letter. In the event of non-compliance of the above conditions, this in-principle approval may be revoked as per the rules.

Yours Sincerely,
Sd/- M. Mahendran
District Forest Officer,
Tirupattur Division,
Tirupattur.

Copy submitted to Principal Chief Conservator of Forests (HoFF), Chennai for kind information

Copy submitted to the Conservator of Forests, Vellore for kind information,

Copy to the Forest Range officer, Alangayam for further action.

// t.c.b.o //


 Superintendent
 15/05/26
 15/05/2026

Tamil Nadu Forest Department

From
Thiru.M.Mahendran, IFS,
District Forest Officer,
Tirupattur Division,
Tirupattur.

To
The Administrative Officer,
Indian Institute of Astrophysics,
Block II, Koramangala,
Bengaluru,
Pin code - 560034

Ref.No.9057/1995 D Dated: 11 .02.2026

Sir,

- Sub: Renewal of lease for diversion of 40 ha of forest land for Vainu Bappu Observatory in Kavalur Indian Institute of Astrophysics in Jawadi Hills, Tirupattur Forest Division, Vellore District in favour of the Administrative Officer, Indian Institute of Astrophysics, Bangalore – reg.
- Ref: 1. Government of India, Ministry of Environment Forests & Climate Change, letter No.4-TNC067/2020-CHN/1015 dated:21.10.2021
2. Principal Chief Conservator of Chennai Ref.TS3/38628/2018 Dated:26.10.2018

I wish to state that the lease period for the 40 ha of forest land in Inner Jawadhu RF of Alangayam Range in Tirupattur Division, for Vainu Bappu Observatory hand been ended .with effective from 04.09.2012

In the reference 1st and 2nd cited. The Governement of India Stage 1 approved under section 2 of FC Act 1980 for the renewal of the lease for a period of 40 years with effect from 05.09.2012

The annual lease rent has been paid up to 04.09.2018, as per the G.O No no 272, E & F dated 15.04.1991 the lease rent has to be fixed at the rate of 1% of the average.Guideline value of the adjoining patta lands to the for area divert for non forestry purpose

Average land value of the patta lands adjent to the Forest lands diverted for Inidan Institute of Astrophysic Kavalur project as per Government guideline value & property valuation from 05.09.2012 to 04.09.2026

September 2018 to August 2021

Average land Value per ha= Rs.2209, 666/-

1% of the land value = Rs.22, 096

Lease rent for 1 ha =Rs.22096/Annuam

Lease rent for 40 ha =Rs.22096*40= Rs 883,866/Annuam

Lease rent from 05.09.2018 to 04.09.2021 = 883,866*3

= Rs.2, 651,600

Total (A)

= Rs. 2,651,600

Lease rent from 05.09.2021 to 04.09.2024

Average land value per ha = Rs.2209666

As there is no change in land value, there is no change in lease rent,

Therefore lease rent from 05.09.2021 to 04.09.2024

=883,866*3

Total (B)

=2,651,600

Lease rent from 05.09.2024 to 04.09.2026

Average land value = Rs 3,512,000

1% of the land value per ha = Rs 351, 20

Annual lease rent for 40 ha = Rs 1,404,800/annuam

Lease rent from 05.09.2024 to 04.09.2026

= Rs.1, 404,800*2

Total(C)

= Rs 2809, 600/-

Total (A) + (B) +(C)

= Rs.81, 12,800/-

The total lease rent to be paid by Indian Institute of Astrophysics,Bangalore to lease lease period from **05.09.2018 to 04.09.2026 is Rs 81,12,800/-**

Therefore, I request the **amount of Rs.81, 12,880/- (Rupees Eighty one lakhs twelve thousand eight hundred rupees only)** may please be paid to this office by DD in favour of the District Forest Officer, Tirupattur at the eaelist.

This may please treated as urgent

Yours Sincerely.

Sd/- M. Mahendran
District Forest Officer,
Tirupattur Division,
Tirupattur

Copy Submitted to The Principal Chief Conservator of Forests (HOFF) Chennai for kind information

→ Chief Conservator of Forests, Vellore kind informstion

Copy to Forest Range Officer, for further action.

// t.c.b.o //

[Signature]
Superintendent
15/02/26

C.No.6071/24/D1.

9 7321
O/o the Conservator of Forests,
Vellore Circle, Vellore - 9.
Dated : 12.08.2024.

Sub : Forest (Conservation) Act 1980 - Proposal for renewal of lease for diversion of 40 ha. of forest land for Vainu Bappu Observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills in Tirupattur Forest Division in Tirupattur District - Stage I approval accorded - modifying the condition on scheme by the Government of India - Revised CA estimate for approval - sending approved estimate - Regarding.

Ref : District Forest Officer, Tirupattur C.No.9057/1995/D, dated : 16.05.2024 and 27.06.2024.

-:-:-:-

With reference to the above subject, I hereby enclosed the approved estimate for raising nursery and planting in Kallarapati RF of Alangayam Range for diversion of 40 ha. of forest land for Vainu Bappu Observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills in Tirupattur Forest Division under CAMPA scheme for necessary action.

Encl. : As stated above.

Sd/C.H.Padma,
Conservator of Forests(FAC),
Vellore Circle, Vellore - 9.

To :

The District Forest Officer,
Tirupattur Division, Tirupattur.

// t.c.b.o. //

J.V.

P. M. S. R. S. R. S. R.
Senior Draughting Officer.

Abstract cost Table

**Estimate for Raising nursery for Native tree species with 10 yr maintenance of
Compensatory afforestation plantation over an area of 20 acres (or) 8.10 Ha in Degraded
Forest in Kallarapatti RF of Alangayam Range for Diversion of diversion of 40 ha of
Forest land for Valnu Bappu observatory in Kavalur Indian Institute of Astrophysics in
Jawadhi Hills in Alangayam Range, Tirupattur division during 2023-2024 under CAMPA
scheme**

Sl. No.	Description of Work	Proposed estimate cost	Remarks
1	2	3	4
1	Raising nursery - 3564 Nos	575000 (610000)	1000 Nos of seedlings has been proposed
2	Planting operation - 3240 Nos	(1977800) 1985560	10% Weightage towards escalation of labour wage rate during 2024-25
3	1 st year Maintenance	(1027200) 1022063	20% Weightage towards escalation of labour wage rate during 2025-26
4	2 nd year Maintenance	698100	30% Weightage towards escalation of labour wage rate during 2026-27
5	3 rd year Maintenance	861000	40% Weightage towards escalation of labour wage rate during 2027-28
6	4 th year Maintenance	45000	50% Weightage towards escalation of labour wage rate during 2028-29
7	5 th year Maintenance	49500	60% Weightage towards escalation of labour wage rate during 2029-30
8	6 th year Maintenance	54450	70% Weightage towards escalation of labour wage rate during 2030-31
9	7 th year Maintenance	59895	80% Weightage towards escalation of labour wage rate during 2031-32
10	8 th year Maintenance	65885	90% Weightage towards escalation of labour wage rate during 2032-33
11	9 th year Maintenance	72473	100% Weightage towards escalation of labour wage rate during 2033-34
12	10 th year Maintenance	79720	110% Weightage towards escalation of labour wage rate during 2034-35
TOTAL		(5601023)	

5569586

COUNTERSIGNED

[Signature]
District Forest Officer
Tirupattur Division

[Signature] 26/8/24
Forest Range Officer,
Alangayam Range,

Alangayam
Approved

[Signature]
Conservator of Forests
Vellore Circle, Vellore-3.

27/6/24

[Signature] 27/6/24

[Signature] 12/8/24
12/8/24

Estimate for Raising nursery for Native tree species with 10 yr maintenance of Compensatory afforestation plantation over an area of 20 acres (or) 8.10 Ha in Degraded Forest in Kallarapatti RF of Alangayam Range for diversion of 40 ha of Forest land for Vainu Bappu observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills in Alangayam Range, Tirupattur division during 2023-2024 under CAMPA scheme

Total diversion = 40 Ha
 Area utilised by UA = 10 acres
 Area for CA = 20 acres (or) 8.10 Ha
 Prorata per ha = 400 Nos/ Ha
 No of Seedlings = 3240
 10% Casualty = 324
 Total seedlings = 3564

Size of Polybags = 13 x 25 x 250g
 Size of Polybags = 30 x 45 x 600g
 Proposed Espacement = Gap Planting
Species proposed for planting
 Vembu, Thuringi, Velvel, Kodavel
 Bamboo, Veppalai

Wage rate for 2024-25 = Rs. 650.85

SL No	Qty	Unit	Name of Work	FSR / SSR	FSL	Rate	Per		Amount
PART I - Small size bags.- 13X25 cm.									
1	36	M²	Preparation of Nursery site by clearing and levelling the site for forming standard bed of size 10mX1m (10M2/1000 Nos)	4.1	2.42	1575.06	200	No	284
2	7.13	Kg	Cost of seeds (2kgs/ 1000 Nos)	LR	--	250.00	1	No	1783
3	3564	Nos.	Cost of 13x25cmx250G Polythene bags	Tender rate	--	1003.00	1000	No	3575
4	11.00	Cum	Forming Germination beds of size 10mx1mx 0.3m by heaping the soil	PWD SSR item 62	--	166.90	1	cum	1836
5	4.00	Bed	Watering the germination beds twice daily with rose cans for 15 days	4.5.1	0.82	533.70	10	Beds / day	3202
6	4.00	Bed	Watering the germination beds once daily with rose cans for 15 days	4.5.2	0.41	266.85	10	Beds / day	1601
8			Collection & supply of good quality of red earth, sand & silt according to the requirement for preparation of soil mixture -						
a)	1.18	Cum	Red earth	4.6.9	--	1200.00	1	M³	1416
b)	2.35	Cum	River sand and silt	4.6.10	--	936.00	1	M³	2200
	1.21	Cum	Cost and transport of Farm yard manure for filling bags - 1/4 th of the total volume. (0.34 M3/1000 Nos)	4.6.11		800.00	1	M³	968
9	3564	Nos.	Preparation of soil mixture by breaking clods, sieving, 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	2915.81	1000	Nos	10392

SL. No	Qty	Unit	Name of Work	FSR / SSR	FSL	Rate	Per		Amount
10	89	Kgs.	Cost of Vermicasting @ 25 gm per seedlings	As per Research Wing Rate	-	12.00	1	Kg	1068
11	36	Kgs.	Cost of VAM @ 10 gm per seedlings	As per Research Wing Rate	-	22.00	1	Kg	792
12	18	Kg	Cost of Azospirillum @ 5 gm per seedlings	As per Research Wing Rate	-	34.00	1	Kg	612
13	18	Kg	Cost of Phosphobacteria @ 5 gm per seedling	As per Research Wing Rate	-	34.00	1	Kg	612
14			Watering the container plants with rose cans - watering regime as per the NHA ME approved in PCCF's Ref. No. J1/57395/2003 dt. 12.12.03.)						
	3564	Nos.	Twice daily - 15 days	4.10.4	0.23	149.70	1000	Day	8003
	3564	Nos.	Once daily - 30 days	4.11.4	0.115	74.85			8003
	3564	Nos.	Alternate days - 15 days		0.115	74.85			4001
15	3564	Nos.	cost of water for watering the container seedlings - 60 days	4.18	-	8.50	1000	day	1363
16	47.52	M2 / 3 months	Land rent @ 3000 bags / 40 sqm) - 3 months	4.17	-	100.00	40	day	356
17	3564	Nos.	Shifting the container plants, weeding, grading and replacement of casualties in the bags - shifting to done once in 21 days, 1 shifting not before 45 days after pricking out 2 shifts	4.15.4	0.51	331.93	1000	Shift	2366
SUB - TOTAL (A)									54433
PART II - Bigger size bags: 30x45cmx600g.									
18	3564	Nos.	Cost of 30 X 45cm X 600 G poly bags	Tender rate	-	6584.40	1000	No	23467
19	32.90	M3	Collection & supply of good quality of red earth, sand & silt according to the requirement for preparation of soil mixture -	4.6.9 4.6.10	-	1068.00	1	M3	35137
a)	11.48	Cum	Red earth	4.6.9	-	1200.00	1	M ³	13776
b)	22.95	Cum	River sand and silt	4.6.10	-	936.00	1	M ³	21481
20	11.48	M3	Cost and transport of Farm yard manure for filling bags - 1/4 th of the total volume. (3.22 cum/1000 Nos)	4.6.11		800.00	1	M ³	9184

1318

54888

SL. No	Qty	Unit	Name of Work	FSR / SSR	FSL	Rate	Per		Amount
21	3564	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 3:1, 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	18594.78	1000	Nos	66272
22	125	Kgs.	Cost of Vermicasting @ 35 gm per seedlings	As per Research Wing Rate	-	12.00	1	Kg	1500
23	53	Kgs.	Cost of VAM @ 15 gm per seedlings		-	22.00	1	Kg	1166
24	21	Kg	Cost of Azospirillum @ 6 gm per seedlings	As per Research Wing Rate	-	34.00	1	Kg	714
25	21	Kg	Cost of Phosphobacteria @ 6 gm per seedling		-	34.00	1	Kg	714
26	36	Mazdoo rs	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	-	650.85	1	Nos	23431
27	3564	Nos.	Cost of vertical stick (Casurina poles 5 cm -8 cm girth and 2.50 m height for each plants) Rs.17.50 per mt hence 2.50 mts = Rs.43.75	PWD SSR item 62	-	17.50	1	Rm	155925
28	1782	Nos.	Cost of horizontal stick (Casurina poles 5 cm - 8 cm girth and 1.00 m height for each plants)	PWD SSR	-	17.50	1	Rm	31185
29	3564	Nos.	Tying plants to the vertical stick once in a month - 2 times	NHAI ME	-	0.40	1	Each/ time	2851
30	3564	Nos.	Pruning side branches once in 2 months - 2 times	NHAI ME	-	1.00			7128
31			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.)						
a)	3564	Nos.	Twice daily - 15 days	4.10.7	0.56	364.48	1000	Day	19485
b)	3564	Nos.	Once daily - 30 days	4.11.7	0.28	182.24	1000	Shift	19485
c)	3564	Nos.	Once in alternate days - spread over 60 days (effective days - 30 days)	4.11.7	0.28	182.24	1000	Shift	19485
d)	3564	Nos.	Twice in a week spread over 105 days (effective days - 30 days)	4.11.7	0.28	182.24	1000	Shift	19485
32	285.12	M2 / 7 months	Land rent @ 500 bags / 40 sqm) - 7 months	4.17	-	100.00	40	day	4990

SL No	Qty	Unit	Name of Work	FSR / SSR	FSL	Rate	Per	Amount
33	3564	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	1750.79	1000 Shift	43679
34	3564	Nos.	cost of water for watering the container seedlings - 105 days	4.18	-	32.00	1000 day	11975
35	3564	Nos.	Nursery protection mazdoors 1 No / 100000 Nos of 30 x45cm bags - 300 days. (90d + 210 d)	As per ME of MTP	1	660.85	100000 Nos	6959
36	5	Months	Provision for cost of pesticides and fungasides and Labour charges for application of pesticides - 2 times / month	LR	-	200	1 times	2000
37	L.S		Photo & Documentation etc.,			LS		5000
38	L.S		Contingencies unforeseen items			LS		9093
SUB - TOTAL (B)								555567
TOTAL (A + B)								610000

Raising cost for 3564 seedlings = 610000 575000
cost for 1 seedlings = 171.16 161.33

520420
575318
575000

Specifications :

The total diversion of Forest land for this proposal is 100 acres (or) 40 ha , but the actual forest area under non-forestry use in this proposal is 10 acres only. Therefore CA scheme for planting indigenous species on suitable double in extent to the area under non-forestry use i.e., 20 acres (or) 8.10.Ha in DFL.

This estimate has been prepared based on the model estimate communicated vide Principal Chief Conservator of Forests, Chennai ref.No. TS4/ 22483/2022 dt. 13.10.2022. The No. of seedlings has been proposed for planting is 400 seedlings /ha based on the instructions issued vide Government of India, Letter F.No. 4/TNC067/2020-CHN/1015 dated 21.10.2021.

Compensatory afforestation has to be carried out over an area of 20 acres (or) 8.10 Ha @ 400 seedlings/ ha. Hence 3240 Nos of seedlings has been proposed with 10% casualty of 324 Nos. Totally 3564 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 for the year 2024-25 , PWD SSR for the year 2023-24 and the local rate as per model estimate and research wing rate.

COUNTERSIGNED

[Signature]
District Forest Officer
Tirupattur Division.

[Signature]
Forest Range Officer,
Alangayam Range,
Alangayam

/ Approved /

27/6/24
[Signature]

[Signature]
Conservator of Forests
Vellore Circle, Vellore-9

12/8/24
[Signature]

Estimate for Planting of native tree species for Compensatory afforestation over an area of 20 acres (or) 8.10 Ha in Degraded Forest in Kallarapatti RF of Alangayam Range for Diversion of diversion of 40 ha of Forest land for Vainu Bappu observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills in Alangayam Range, Tirupattur division during 2023-2024 under CAMPA scheme

No of seedlings = 3240
 10% Casualty = 324
 Total = 3564

Size of Polybags = 30 x 45 x 600g
 Wage rate for 2024-25 = Rs. 650.85

Sl. No	Qty		Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per		Amount
1	3240	Nos	Aligning and Marking the plantation area	5.2.4	1.38	573.79	100	Nos	21831
2	3240	Nos	Digging of 60 CM3 pits in all types of soil during non rainy season	5.8.1	9.28	6026.87	100	Nos	195271
3	233.28	M ³	Cost & transport of Farmyard manure each plants 0.60 x 0.60 x 0.20 = 0.072 M ³ /Pit	4.6.11		800.00	1	Cum	186624
4	3240	Nos	Application of Farmyard manure @ 500 gms per plant by mixing in the pit before planting - 1 mazdoor for 200 Nos	FSL Wage rate	1.00	650.85	200	No	10544
5	3240	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	24948
6	3564	Nos	Transporting saplings (transported to the radius of 40 kms) excluding loading and unloading	NHAI ME	-	7.00	1	No	24948
7	3564	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	2141.30	1000	Nos	7632
8			Distribution of saplings from where seedlings are stocked to the planting spot upto 200 mts						
	1426	Nos	Upto 100 mts	5.15.1	10.00	6508.50	1000	Nos	9281
	1426	Nos	Upto 200 mts	5.15.2	17.50	11389.88	1000	Nos	16242
	712	Nos	Upto 500 mts	5.15.3	41.00	26684.85	1000	Nos	19000
9	3240	Nos	Planting the container plants by refilling pits of size 60cm.	5.22	1.71	1112.95	100	Nos	36060
10	8100	RM	Provision of vertical casurina poles 5cm to 8cm 2.50mtr ht. per plant	PWD SSR	-	17.50	1	RM	141750
11	324	Nos	Replacement of casualties by reopening failed pits and planting the seedlings (1/2 pitting rate + full planting rate)	5.23	6.34	4126.39	100	Nos	13370
12	3240	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	800.55	100	Nos	25938

29/01

Sl. No	Qty		Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per		Amount
13	3240	Nos	Forming catch water drains for each plant of 90x45x 30 cm size in hillocks and hard gravelly soil	5.26	6.84	4451.81	100	Nos	144239
14	3240	Nos	Providing Brush wood fencing around each plants	-	0.25	162.71	1	No	527180
15	3240	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	-	650.85	200	Nos	158157
16	972000	Ltrs	Cost of water @ 20 liter per seedlings 15 waterig days (3240x20x15=972000 Lts)	NHAI ME		1200.00	12000	Lts	97200
17	1	Nos.	Plantation Protection mazdoors from October to March - 180 m.days	Wage rate	1	650.85	1	M. Days	117153
18	3240	Nos	Removing/scrapping vizal monsoon or bothai grass for one meter dia around the plants	5.27	0.21	136.68	100	Nos	4428
19	5	Mont hs	Provision for cost of pesticides and fungasides and Labour charges for application of pesticides - 2 times / month	LR	-	200	1	times	2000
20	L.S		Photo & Documentation etc.,	LS					5000
21	LS		Contingencies and unforeseen expenditure to be restricted to as per actuals.	LS					9204
TOTAL									1798000
Add 10% of escalation									179800
Total prorata									1977800

Specifications :

The total diversion of Forest land for this proposal is 100 acres (or) 40 ha , but the actual forest area under non-forestry use in this proposal is 10 acres only. Therefore CA scheme for planting indigenous species on suitable double in extent to the area under non-forestry use i.e., 20 acres (or) 8.10 Ha in DFL.

This estimate has been prepared based on the model estimate communicated vide Principal Chief Conservator of Forests, Chennai ref.No. TS4/ 22483/2022 dt. 13.10.2022. The No. of seedlings has been proposed for planting is 400 seedlings /ha based on the instructions issued vide Government of India, Letter F.No. 4/TNC067/2020-CHN/1015 dated 21.10.2021.

Compensatory afforestation has to be carried out over an area of 20 acres (or) 8.10 Ha @ 400 seedlings/ ha. Hence 3240 Nos of seedlings has been proposed with 10% casuality of 324 Nos.Totally 3564 Nos of seedlings has been proposed.

2) Rates for the works in SL. No. 2 and 8 have been provided for plains.

3) The estimate has been prepared based on NHAI/ MTP model estimate, FSR for the year 2024-25 , PWD SSR for the year 2023-24 and and the local rate as per model estimate and research wing rate.

COUNTERSIGNED

District Forest Officer,
Tirupattur Division

Forest Range Officer,
Alangayam Range,
Alangayam

Conservator of Forests
Vellore Circle, Vellore-9.

Estimate for 1st year maintenance of Compensatory afforestation over an area of 20 acres (or) 8.10 Ha in Degraded Forest in Kallarapatti RF of Alangayam Range for Diversion of diversion of 40 ha of Forest land for Vainu Bappu observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills in Alangayam Range, Tirupattur division during 2023-2024 under CAMPA scheme

No of Seedlings planted= 3240

No of Seedlings for = 324

Casualty replacement

Size of Polybags = 30 x 45 x 600g

Wage rate for 2024-25 = Rs. 650.85

Sl. No	Qty	Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per	Amount
A. NURSERY OPERATION							
1	324 M ²	Raising cost of seedlings in 30x45 size polythene bags (As per nursery estimate)	As per nursery estimate	-	161.33 171.16	1 No	55456
TOTAL (A)							55456
B. PLANTING OPERATION							
1	23 M ³	Cost & transport of Farmyard manure each plants 0.60 x 0.60 x 0.20 = 0.072 M3/Pit	4.6.11		800.00	1 Cum	18662
2	324 Nos	Application of Farmyard manure @ 500 gms per plant by mixing in the pit before planting - 1 mazdoor for 200 Nos	FSL Wage rate	1	650.85	200 No	1054
3	324 Nos.	Transporting saplings (transported in the radius of 40 Kms) excluding loading and unloading in private vehicle	NHAI ME	-	7.00	1 No.	2268
4	324 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	2141.30	1000 Nos	694
5		Distribution of seedlings in the site C.plants upto 500mts - in plains					
	130 Nos	Upto 100 mts	5.15.1	10.00	6508.50	1000 Nos	846
	130 Nos	Upto 200 mts	5.15.2	17.50	11389.88	1000 Nos	1481
	64 Nos	Upto 500 mts	5.15.3	41.00	26684.85	1000 Nos	1708
6	324 Nos	Replacement of casualties by reopening failed pits and planting the seedlings	5.23	5.57	3625.23	100 Nos	11746

52271

52271

18400

Estimate for 2nd year maintenance of Compensatory afforestation over an area of 20 acres (or) 8.10 Ha in Degraded Forest in Kallarapatti RF of Alangayam Range for Diversion of diversion of 40 ha of Forest land for Valnu Bappu observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills in Alangayam Range, Tirupattur division during 2023-2024 under CAMPA scheme

Seedlings planted = 3240
Survival 100% = 3240

Size of Polybags = 30 x 45 x 600g
Wage rate for 2024-25 = Rs. 650.85

Sl. No	Qty		Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per		Amount
1	3240	Nos	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	1.23	800.55	100	Nos	25938
2	3240	Nos	Cost of Bio Fertilizers including cost of application Vermi-camposse,Bio fertilizer 100 gms VAM 100 Gms	NHAI ME	-	7.70	1	No.	24948
3	1944000	Ltrs	Cost of water @ 20 liter per seedlings 30 waterig days (3240x20x30=1944000 Lts)	NHAI ME	-	1200.00	12000	Lts	194400
4	3240	Nos	Watering the plants weekly twice (excluding rainy days) from April to August & January to March - (15+15 = 30 watering days	4.11.7	-	488.25	200	Shift	237290
5	1.00	No	Engaging protection Mazdoor @ 1 Mazdoor (3 months) (25 days/ Month)	FSR wage rate	-	650.85	1	No	48814
6	LS		Contingencies and unforeseen expenditure to be restricted to as per actuals.	LS					5610
Total prorata									537000
Add 30% of escalation									161100
Total prorata 2nd year maintenance									698100

Specifications :

3) The estimate has been prepared based on NHAI/ MTP model estimate, FSR for the year 2024-25, PWD SSR for the year 2023-24 and the local rate as per model estimate and research wing rate.

COUNTERSIGNED

District Forest Officer,
Tirupattur Division.

Forest Range Officer,
Alangayam Range,
Alangayam

Conservator of Forests
Vellore Circle, Vellore

Estimate for 3rd year maintenance of Compensatory afforestation over an area of 20 acres (or) 8.10 Ha in Degraded Forest in Kallarapatti RF of Alangayam Range for Diversion of 40 ha of Forest land for Vainu Bappu observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills in Alangayam Range, Tirupattur division during 2023-2024 under CAMPA scheme

Seedlings planted = 3240
Survival 100% = 3240

Size of Polybags = 30 x 45 x 600g
Wage rate for 2024-25 = Rs. 650.85

Sl. No	Qty	Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per	Amount
1	3240 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	800.55	100 Nos	25938
2	3240 Nos	Cost of Bio Fertilizers including cost of application Vermi-campose, Bio fertilizer 100 gms VAM 100 Gms	NHAI ME	-	7.70	1 No.	24948
3	1944000 Ltrs	Cost of water @ 20 liter per seedlings 30 watering days (3240x20x30=1944000 Lts)	NHAI ME	-	1200.00	12000 Lts	194400
4	3240 Nos	Watering the plants weekly twice (excluding rainy days) from April to August & January to March - (15+15 = 30 watering days)	4.11.7	-	650.85	200 Shift	316313
6	1.00 No	Engaging protection Mazdoor @ 1 Mazdoor (3 months) (25 days/ Month)	FSR wage rate	-	650.85	1 No	48814
7	LS	Contingencies and unforeseen expenditure to be restricted to as per actuals.			LS		4587
Total prorata							615000
Add 40% of escalation							246000
Total prorata 3rd year maintenance							861000

Specifications :

3) The estimate has been prepared based on NHAI/ MTP model estimate, FSR for the year 2024-25, PWD SSR for the year 2023-24 and the local rate as per model estimate and research wing rate.

COUNTERSIGNED

District Forest Officer,
Tirupattur Division.

Forest Range Officer,
Alangayam Range,
Alangayam

Conservator of Forests
Vellore Circle, Vellore-9.

Estimate for 4th year maintenance of Compensatory afforestation over an area of 20 acres (or) 8.10 Ha in Degraded Forest in Kallarapatti RF of Alangayam Range for Diversion of 40 ha of Forest land for Vainu Bappu observatory in Kavalur Indian Institute of Astrophysics in Jawadhi Hills in Alangayam Range, Tirupattur division during 2023-2024 under CAMPA scheme

Seedlings planted = 3240
Survival 100% = 3240

Size of Polybags = 30 x 45 x 600g
Wage rate for 2024-25 = Rs. 650.85

Sl. No	Qty		Description of work	F.S.R. No.	FSL (Man days)	Rate Rs.	Per		Amount
1	3240	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	800.55	100	Nos	25938
2	LS		Contingencies and unforeseen expenditure to be restricted to as per actuals.	LS					4062
Total prorata									30000
Add 50% of escalation									15000
Total prorata 4th year maintenance									45000
Add 10% of escalation for 5th year									4500
Total prorata for 5th year maintenance									49500
Add 10% of escalation for 6th year									4950
Total prorata for 6th year maintenance									54450
Add 10% of escalation for 7th year									5445
Total prorata for 7th year maintenance									59895
Add 10% of escalation for 8th year									5990
Total prorata for 8th year maintenance									65885
Add 10% of escalation for 9th year									6588
Total prorata for 9th year maintenance									72473
Add 10% of escalation for 10th year									7247
Total prorata for 10th year maintenance									79720

Specifications :

The estimate has been prepared based on the FSR for the year 2024-25.

COUNTERSIGNED

District Forest Officer,
Tirupattur Division.

[Signature]
Forest Range Officer,
Alangayam Range,
Alangayam

[Signature]
Approved

Conservator of Forests
Vellore Circle, Vellore-9.

[Signature] 27/6/24
[Signature] 29/6/24

[Signature] 27/6/24

By E-mail only

Ref No. WL5/4263/2025 O/o. Principal Chief Conservator of Forests
(HoFF), State Forest Headquarters,
Guindy-Velachery Main Road,
Chennai - 600 032
Dated: 11-01-2026

Sub: Forests – Wildlife – Proposal for renewal of lease for diversion of 40 Ha of Forest land in inner Jawadu RF for Vainubappu observatory in Kavalur India Institute of Astrophysics in Jawadhi Hilla in Tirupattur Forest Division in Vellore District – Approval of Wildlife Mitigation Plan – Regarding.

Ref: 1) The District Forest Officer, Tirupattur Ref. No. 9057/1995-D dated 05-12-2025.

2) Chief Conservator of Forests, Vellore Ref. No 8387/2025/D1 dated 16-12-2025.

* * * *

Attention of the Chief Conservator of Forests, Vellore is invited to the reference cited. It is informed that the Human-Wildlife Conflict Mitigation Plan for diversion of 40 Ha of Forest land in inner Jawadhu RF for Vainubappu observatory in Kavalur Indian Institute of Astrophysics in Jawadhu Hills in Tirupattur Forest Division in Vellore District is hereby modified and approved. The abstract of mitigation measures are as follows:-

Amount (Rs. in Lakhs)

SL. No	Name of the component	Phy	Unit Cost	Amount
1	Forest Pond	2 Nos.	5.30	10.60
2	Monkey Rescue cage with centre partition (detachable type)	2 Nos.	1.00	2.00
3	Wild boar Rescue cage with centre partition (detachable type)	1 No.	2.50	2.50
Total				15.10

The following conditions should be strictly adhered

- No deviation should be made without prior approval of Principal Chief Conservator of Forests and Chief Wildlife Warden.
- All safety measures shall be taken to avoid accidents and structural failures.
- The works shall be carried out without disturbing or damaging flora, fauna, or habitat of the area.
- The District Forest Officer, Vellore to obtain an undertaking from the user agency regarding the amount of Rs. 15.10 lakhs will not be claimed in future in any case.

- The District Forest Officer, Vellore should submit the progress report on monthly basis till the works are completed and also submit the work completion report along with Geo tagged images.

2) This mitigation plan is only for obtaining Forests / Environmental Clearance from the Competent Authority.

Digitally signed by
Venuprasad Hanumanthachar
Date: 11-01-2026 19:00:31

for Principal Chief Conservator of Forests
and Chief Wildlife Warden

To
The Chief Conservator of Forests,
Vellore Circle,
Vellore.

Copy to the District Forest Officer, Vellore Division, Vellore for information.

Estimate for Monkey Rescue Cage for Alangayam Forest Range, Tirupattur Forest Division During 2025-26.

S.No	Description of Work	Dimension of cage(lxbxh) in ft	Rate	Per		Amount Rs.
1	Monkey Rescue Cage with center partition (Detachable type) for Alangayam Forest Range	7x3x3	85000	2	No	170000
	Total					170000

Specification:

The Estimate has been prepared based on the Lowest Quotation. Hence, The Estimate may kindly be sanctioned at an early.

C.No: 303/2025 Date: 03.12.2025.

Sir,

Submitted to the District Forest Officer, Tirupattur Forest Division.

COUNTERSIGNED

A. L. M. M. M.
District Forest Officer
Tirupattur Division

04/12/25

P. G. S.
Forest Range Officer,
Alangayam Range,
Alangayam.

Estimate for Wildboar Rescue Cage for Alangayam Forest Range, Tirupattur Forest Division During 2025-26.

S.No	Description of Work	Dimension of cage(lxbxh) in ft	Rate	Per		Amount Rs.
1	Wildboar Rescue Cage with center partition(Detachable type) for Alangayam Forest Range	7x5x5	190000	1	No	190000
	Total					190000

Specification:

The Estimate has been prepared based on the Lowest Quotation. Hence, The Estimate may kindly be sanctioned at an early.

C.No: 302/2025 Date: 03.12.2025.

Sir,

Submitted to the District Forest Officer, Tirupattur Forest Division.

COUNTERSIGNED

District Forest Officer,
Tirupattur Division.

Forest Range Officer,
Alangayam Range,
Alangayam.

ABSTRACT ESTIMATE**MODEL ESTIMATE FOR CONSTRUCTION OF FOREST POND UNDER WILDLIFE
MITIGATION PLAN IN INNERJAWADHIRE IN KAVALUR SECTION IN ALANGAYAM RANGE
OF TIRUPATTUR DIVISION.**

Sl. No	Description of Work	Quantity	Rate	Per	Amount
1	2	3	4	5	6
1	Clearing the Scrub jungle growth in the bund and water spread for formation of bund	120.00	4.40	cum	528
2	Earth work excavating and depositing on bank in H.G. Soil as per SS20B and SI.62 for Bund Formation	106.35	168.48	cum	17918
3	Cement Concrete 1:3:6 using 40 mm lss H.G Metal including cost and conveyance of all materials at site, labour charges, curing etc., complete and as directed by the department officers	15.86	6452.12	cum	102331
4	Supplying and erecting Centering for sides and soffits including supports and strutting upto 3.29m high for plane surfaces such as RCC SLABS, RECTANGULAR BEAMS, TEE or ELL BEAMS, LINTELS, BED BLOKS, STAIRCASE WAIST and landing slabs, landing beams, canopy etc., in all floors with all cross bracings using mild steel sheets of size 90cm x 60cm and BG 10 stiffened with welded mild steel angles of size 25mm x 25mm x 3mm for boarding laid over countrywood joists of size 10cm x 6.50cm spaced at about 90cm centre and supported by casuarina props of 10cm to 13cm dia spaced at 75cm centre etc., complete and as directed.	25.02	1121.95	sqm	28071
5	Cement Concrete 1:2:4 using machine crushed / Hand Broken 20mm gauge hard broken granite stone jelly for all reinforced cement concrete works connected to this work excluding centering, shuttering and cost of reinforcement grills placed in position, but including laying, vibrating, curing and finishing, fixing fan clamps in the RCC floor and roof slab works wherever necessary and bearing surfaces of the wall at the sides and bottom of the slab, beams shall be finished smooth with cement mortar 1:3 and kraft paper laid without claiming extra cost etc., complete complying with standard specification.	28.61	9282.57	cum	265537

ABSTRACT ESTIMATE**MODEL ESTIMATE FOR CONSTRUCTION OF FOREST POND UNDER WILDLIFE
MITIGATION PLAN IN INNERJAWADHIRE IN KAVALUR SECTION IN ALANGAYAM RANGE
OF TIRUPATTUR DIVISION.**

26 AUG 2023

Sl. No	Description of Work	Quantity	Rate	Per	Amount
1	2	3	4	5	6
1	Clearing the Scrub jungle growth in the bund and water spread for formation of bund	120.00	4.40	cum	528
2	Earth work excavating and depositing on bank in H.G. Soil as per SS20B and Sl.62 for Bund Formation	106.35	168.48	cum	17918
3	Cement Concrete 1:3:6 using 40 mm iss H.G Metal including cost and conveyance of all materials at site, labour charges, curing etc., complete and as directed by the department officers	15.86	6452.12	cum	102331
4	Supplying and erecting Centering for sides and soffits including supports and strutting upto 3.29m high for plane surfaces such as RCC SLABS, RECTANGULAR BEAMS, TEE or ELL BEAMS, LINTELS, BED BLOKS, STAIRCASE WAIST and landing slabs, landing beams, canopy etc., in all floors with all cross bracings using mild steel sheets of size 90cm x 60cm and BG 10 stiffened with welded mild steel angles of size 25mm x 25mm x 3mm for boarding laid over countrywood joists of size 10cm x 6.50cm spaced at about 90cm centre and supported by casuarian props of 10cm to 13cm dia spaced at 75cm centre etc., complete and as directed.	25.02	1121.95	sqm	28071
5	Cement Concrete 1:2:4 using machine crushed / Hand Broken 20mm gauge hard broken granite stone jelly for all reinforced cement concrete works connected to this work excluding centering, shuttering and cost of reinforcement grills placed in position, but including laying, vibrating, curing and finishing, fixing fan clamps in the RCC floor and roof slab works wherever necessary and bearing surfaces of the wall at the sides and bottom of the slab, beams shall be finished smooth with cement mortar 1:3 and kraft paper laid without claiming extra cost etc., complete complying with standard specification.	28.61	9282.57	cum	265537

6	Supplying fabrication and placing in position mild steel rods for reinforced including cost of steel all works	510.30	9008.53	100 kgs	45971
7	Plastering with Cement Mortar 1:5, 12 mm thick in all floors complying with standard specification (S.I.306)	25.02	320.60	cum	8021
	Subtotal				468377
8	GST 12%				56205
9	LWF 1%				4684
10	Contingencies for meetout unforeseen expenditure				734
	TOTAL				530000

Specification

The estimate is prepared based on the PWD SSR for the year 2021-2022. Construction of a Forest Pond in Innerjawadhi RF of Alangayam Range for drinking water facility to the wild animals. Hence, the wild animals may not come outside of the RF and wandering for drinking water. Therefore the estimate may kindly be approved.

Sir,

Submitted to the District Forest Office,
Tirupattur Division, Tirupattur.

COUNTERSIGNED

[Signature]
District Forest Officer
Tirupattur Division

[Signature]
Forest Range Officer,
Alangayam Range,
Alangayam, TPT.Dt.

[Signature]
01/09/25

DETAILED ESTIMATE

MODEL ESTIMATE FOR CONSTRUCTION OF FOREST POND UNDER WILDLIFE MITIGATION PLAN IN INNERJAWADHIRE IN KAVALUR SECTION IN ALANGAYAM RANGE OF TIRUPATTUR DIVISION

Sl. No.	DESCRIPTION OF WORK	No.	L	B	D	QTY	
1	2	3	4	5	6	7	
1	Clearing the Scrub jungle growth in the bund and water spread for formation of bund						
		1X1	1	12.00	10.00	-	120.00
							120.00 sqm
2	Earth work excavating and depositing on bank in H.G. Soil as per SS20B and SL62 for Bund Formation						
	For Pond						
	Top portion	1x1	1	12.00	10.00	0.35	42.00
	Bottom Portion	1X1	1	10.00	7.15	0.90	64.35
					(11.2+3.1)/2		
							106.35 cum
3	Cement Concrete 1:3:6 using 40 mm lss H.G Metal including cost and conveyance of all materials at site, labour charges, curing etc., complete and as directed by the department officers						
	For Pond	1x1	1	12.20	10.00	0.13	15.86
							15.86 cum
4	Supplying and erecting Centering for sides and soffits including supports and strutting upto 3.29m high for plane surfaces such as RCC SLABS, RECTANGULAR BEAMS, TEE or ELL BEAMS, LINTELS, BED BLOKS, STAIRCASE WAIST and landing slabs, landing beams, canopy etc., in all floors with all cross bracings using mild steel sheets of size 90cm x 60cm and BG 10 stiffened with welded mild steel angles of size 25mm x 25mm x 3mm for boarding laid over countrywood joists of size 10cm x 6.50cm spaced at about 90cm centre and supported by casuarina props of 10cm to 13cm dia spaced at 75cm centre etc., complete and as directed.						
	For side walls BGL	1X2	2	7.10	-	0.90	12.78
				(11.1+3.1)/2			
	For side walls AGL	2X2	4	5.10	-	0.60	12.24
							25.02 sqm

1	2	3	4	5	6	7	
5	Cement Concrete 1:2:4 using machine crushed / Hand Broken 20mm gauge hard broken granite stone jolly for all reinforced cement concrete works connected to this work excluding centering, shuttering and cost of reinforcement grills placed in position, but including laying, vibrating, curing and finishing, fixing fan clamps in the RCC floor and roof slab works wherever necessary and bearing surfaces of the wall at the sides and bottom of the slab, beams shall be finished smooth with cement mortar 1:3 and kraft paper laid without claiming extra cost etc., complete complying with standard specification.						
	For side walls BGL	1X2	2	7.10	0.30	0.90	3.83
				(11.1+3.1)/2			
	For side walls AGL	1X2	2	5.10	0.30	0.60	1.84
	For Pond	1x1	1	12.20	9.40	0.20	22.94
							28.61 cum
6	Supplying fabrication and placing in position mild steel rods for reinforced including cost of steel all works						
	For side walls	1X1	1	5.67	90.00	Kg/m ³	510.30
	Total						510.30 Kgs
7	Plastering with Cement Mortar 1:5, 12 mm thick in all floors complying with standard specification (S.I.306)						
	For side walls BGL	1X2	2	7.10	-	0.90	12.78
				(11.1+3.1)/2			
	For side walls AGL	2X2	4	5.10	-	0.60	12.24
							25.02 cum
8	GST 12%						
9	LWF 1%						
10	Contingencies for meetout unforeseen expenditure						

COUNTERSIGNED

District Forest Officer
Tirupattur Division

Forest Range Officer,
Alangayam Range,
Alangayam, TPT.DI.

DATA SHEET						
Sl. No	Quantity		Description of Work	Rate	Per	Amount
1			<u>Cement Mortar 1:2</u>			
	720	Kg	Cement			
	1.00	Cum	Sand	6419.63	M.T	4622.13
	1.00	Cum	Mixing Mortar	2337.57	Cu.m	2337.57
			add 40% extra for JAWADHU HILLS	87.00	Cu.m	87.00
						34.80
2			<u>Cement Mortar 1:3</u>			7081.50
	480	Kg	Cement	6419.63	M.T	3081.42
	1.00	Cum	Sand	2337.57	Cu.m	2337.57
	1.00	Cum	Mixing Mortar	87.00	Cu.m	87.00
			add 40% extra for JAWADHU HILLS			34.80
						5540.79
3			<u>Cement Mortar 1:4</u>			
	360	Kg	Cement	6419.63	M.T	2311.07
	1.00	Cum	Sand	2337.57	Cu.m	2337.57
	1.00	Cum	Mixing Mortar	87.00	Cu.m	87.00
			add 40% extra for JAWADHU HILLS			34.80
						4770.44
4			<u>Cement Mortar 1:5</u>			
	288	Kg	Cement	6419.63	M.T	1848.85
	1.00	Cum	Sand	2337.57	Cu.m	2337.57
	1.00	Cum	Mixing Mortar	87.00	Cu.m	87.00
			add 40% extra for JAWADHU HILLS			34.80
						4308.22
5	Earth work Excavation and depositing on bank with an initial lead of 10 m and lift of 2 m in hard stiff clay, stiff black cotton, hard red earth , shales, murrums, stoney earth, earth mixed with small size boulders,and hard gravelly soil for foundation as per SS 20 B					
	1.00	Cum	AS per SS 20 B	70.20	Cu.m	70.20
			Add 100 % Extra			70.20
			add 40% extra for JAWADHU HILLS			28.08
						168.48
10	Cement Concrete 1:2:4 using machine crushed / Hand Broken 20mm gauge hard broken granite stone jelly for all reinforced cement concrete works connected to this work excuding cenetering, shuttering and cost of reinforcement grills placed in position, but including laying, vibrating, curing and finishing, fixing fan clamps in the RCC floor and roof slab works wherever necessary and bearing surfaces of the wall at the sides and bottom of the slab, beams shall be finished smooth with cement mortar 1:3 and kraft paper laid without claiming extra cost etc., complete complying with standard specification.					
	9.00	Cu.M	20 mm ISS H.G Metal	2018.01	Cu.M	18162.09
	4.50	Cu.M	Sand	2337.57	Cu.M	10519.07
	3231	Kg	Cement	6419.63	Kg	20741.82
	3.50	Nos	Mason II class	804.00	Nos	2814.00
	21.20	Nos	Mazdoor I Class	562.00	Nos	11914.40
	35.30	Nos	Mazdoor II Class	461.00	Nos	16273.30

			add 40% extra for JAWADHU HILLS			12400.88
						0.30
						92825.60
			Basic rate			9282.57
12	Cement Concrete 1:3:6 using 40 mm Iss H.G Metal including cost and conveyance of all materials at site, labour charges, curing etc., complete and as directed by the department officers					
	9.00	Cum	40 mm ISS H.G Metal	1015.01	Cu.m	14535.09
	4.50	Cum	Cement Mortar 1:3	5540.79	Cu.m	24933.57
	1.80	Nos	Mason II class	804.00	Each	1447.20
	17.70	Nos	Mazdoor I Class	562.00	Each	9947.40
	14.10	Nos	Mazdoor II Class	461.00	Each	6500.10
			add 40% extra for JAWADHU HILLS			7157.88
						64521.24
			Basic rate			6452.12
13	Supplying and erecting Centering for sides and soffits including supports and strutting upto 3.29m high for plane surfaces such as RCC SLABS, RECTANGULAR BEAMS, TEE or ELL BEAMS, LINTELS, BED BLOKS, STAIRCASE WAIST and landing slabs, landing beams, canopy etc., in all floors with all cross bracings using mild steel sheets of size 90cm x 60cm and BG 10 stiffened wit welded mild steel angles of size 25mm x 25mm x 3mm for boarding laid over countrywood joists of size 10cmx 6.50cm spaced at about 90cm centre and supported by casuarina props of 10cm to 13cm dia spaced at 75cm centre etc., complete and as directed.					
			M.S Sheet 90cm x 60cm, 10guage required			
			0.54 m2 x 3.175 x 7.85	13.46		
			M.S. Angle 25mm x 25mm x 3mm			
			3.60 x 1.10 3.96 (or) 4.00 kg			
			<u>SUB DATA - I</u>			
	13.46	Kg	M.S Sheet 10 guage cost	47.30	Kg	636.66
	4.00	Kg	M.S. Sheet angle including cutting,	47.30	Kg	189.20
			coming, bending and welding			52.20
	LS		charges			878.06
			<u>SUB DATA :2</u>			
	19	Nos	MS Sheet and Angle	878.06	Nos	16683.10
			Assuming 40 uses	Single use		417.08
			<u>Strutting</u>			
	98.50	RM	Casuarina props 10cm to 13cm dia	25.20	RM	2482.20
	0.12	M3	Silver Oak (country wood joists)	17600.00	M3	2112.00
						4594.20
			Assuming 5 uses	Rate for single use		918.84
			<u>Main Data</u>			

	1.00	Use	M.S Sheet and angle	417.08	Use	417.08
	1.00	Use	Strutting with country wood joints and truss	918.84	Use	918.84
	3.80	Nos	Carpenter I Class	842.00	Nos	3199.60
	1.00	Nos	Fitter II class	739.00	Nos	739.00
	5.40	Nos	Mazdoor I class	562.00	Nos	3034.80
	L.	S.	Add for periodical cleaning and painting of MS sheets & angles			60.00
	L.	S.	Add for wedges, nails etc.	LS		60.00
			add 40% extra for JAWADHU HILLS			2789.36
						0.78
						11219.46
						1121.95
			add for columns 20%			224.39
						1346.33
14			strutting to centering of RCC slabs up to 3 m height			
	98.5		Casurina props 10 to 13cm dia	25.20	m	2482.20
			Cost for 1 operation			496.44
	0.3		Carpenter 1 class	842.00	e	252.60
	0.3		Mazdoor cat I	562.00	e	168.60
			Wedges, nails, coils etc.,			60.00
			add 40% extra for JAWADHU HILLS			168.48
						917.52
			rate per m2 (/30	1026.18/30		30.58
15			Centering and strutting for various heights			
			of service reservoir			
			for slabs			
			up to 3.3 m height			1152.53
			3.31m to 4.30m			1183.11
			4.31m to 5.30m height			1213.70
			5.31m to 6.30m height			1244.28
			6.31m to 7.30m height (			1274.87
			7.31m to 8.30m height			1305.45
			for square columns			
			up to 3.3 m height			1376.92
			3.31m to 4.30m			1407.50
			4.31m to 5.30m height			1438.09
			5.31m to 6.30m height(			1468.67
			6.31m to 7.30m height			1499.25
			7.31m to 8.30m height			1529.84

16	Supplying fabrication and placing in position mild steel rods for reinforced including cost of steel all works					
	1.00	Qtl	Steel	52337.88	MT	5233.79
	1.00	Kg	Binding wire	50.30		50.30
	3.50	Nos	Filler I class	760.00	Nos	2660.00
			add 40% extra for JAWADHU HILLS			1064.00
						0.44
						9008.53
10	Plastering with Cement Mortar 1:5, 12 mm thick in all floors complying with standard					
	0.14	M ³	CM 1:5	4308.22	M ³	603.15
	1.10	Each	Mason I Class	861.00	Each	947.10
	0.50	Each	Mazdoor I Class	562.00	Each	281.00
	1.10	Each	Mazdoor II Class	461.00	Each	507.10
		Add	20% Extra for R.F			867.60
			Rate per 10 M ²			3205.95
			Rate per M ²			320.60

COUNTERSIGNED

District Forest Officer,
Girupattur Division

[Signature]
01/09/25

[Signature]
Forest Range Officer,
Alangayam Range,
Alangayam, TPT.Dt.

LEAD STATEMENT

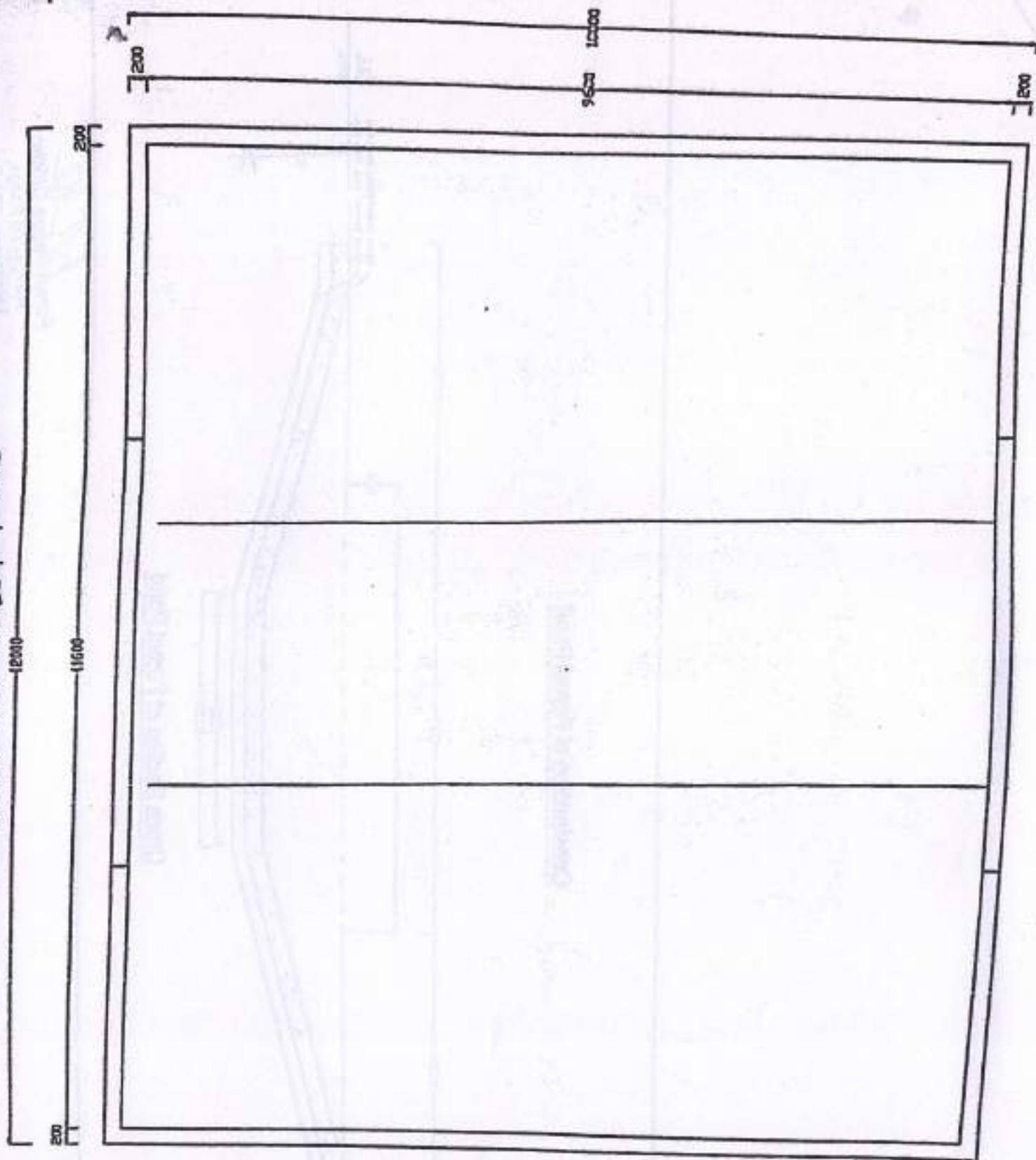
S. No	Material	Source	Distance(Km)		Cost of Material	Cost of Transport		Cost of Transport	Head load charges	Total Cost
			plains	hills		plains	hills			
1	Cement	Alangayam	4	7	5960.00	27.84	95.44	336.35		6419.63
2	M Sand	Hosur	84	7	1280.00	719.06	107.66	230.85		2337.57
3	Rough stone	Vellakuttai	17	7	445.00	177.94	122.72	285.35		1031.01
4	Bond stone	Vellakuttai	17	7	642.00	177.94	122.72	285.35		1228.01
5	40 MM jelly	Vellakuttai	17	7	1029.00	177.94	122.72	285.35		1615.01
6	20 MM jelly	Vellakuttai	17	7	1432.00	177.94	122.72	285.35		2018.01
7	Steel	Alangayam	4	7	51750.00	27.84	95.44	464.60		52337.88

Certified that the distance provided in the estimate material is as per the actual source and the distance is found to be correct to the best of my knowledge

Certified that the work spot lies in Jawadhi Hills . Hence 40% extra for Cost of Labours has been provided

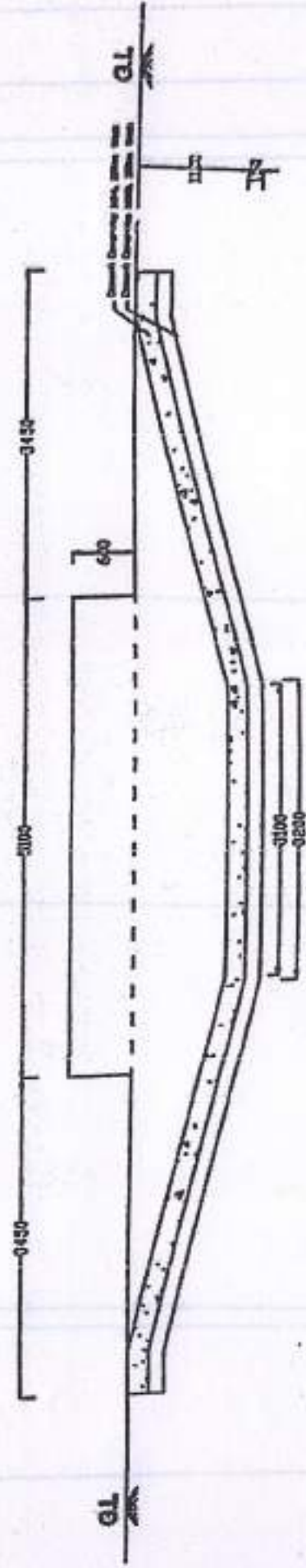

 Forest Range Officer,
 Alangayam Range,
 Alangayam, TPT.OI

PLAN FOR FOREST POND



[Signature]
Forest Range Officer,
Alangayam Range,
Alangayam, TPT.DL

Construction of Forest Pond



Cross Section of Forest Pond

[Signature]
Forest Range Officer,
Alangayam Range,
Alangayam, T.P.T.D.

ABSTRACT ESTIMATE

**MODEL ESTIMATE FOR CONSTRUCTION OF FOREST POND UNDER WILDLIFE
MITIGATION PLAN IN INNERJAWADHIRE IN KAVALUR SECTION IN ALANGAYAM RANGE
OF TIRUPATTUR DIVISION.**

12/6/2025

Sl. No	Description of Work	Quantity	Rate	Per	Amount
1	2	3	4	5	6
1	Clearing the Scrub jungle growth in the bund and water spread for formation of bund	120.00	4.40	cum	528
2	Earth work excavating and depositing on bank in H.G. Soil as per SS20B and SI.62 for Bund Formation	106.35	168.48	cum	17918
3	Cement Concrete 1:3:6 using 40 mm lss H.G Metal including cost and conveyance of all materials at site, labour charges, curing etc., complete and as directed by the department officers	15.86	6452.12	cum	102331
4	Supplying and erecting Centering for sides and soffits including supports and strutting upto 3.29m high for plane surfaces such as RCC SLABS, RECTANGULAR BEAMS, TEE or ELL BEAMS, LINTELS, BED BLOKS, STAIRCASE WAIST and landing slabs, landing beams, canopy etc., in all floors with all cross bracings using mild steel sheets of size 90cm x 60cm and BG 10 stiffened with welded mild steel angles of size 25mm x 25mm x 3mm for boarding laid over countrywood joists of size 10cm x 6.50cm spaced at about 90cm centre and supported by casuarina props of 10cm to 13cm dia spaced at 75cm centre etc., complete and as directed.	25.02	1121.95	sqm	28071
5	Cement Concrete 1:2:4 using machine crushed / Hand Broken 20mm gauge hard broken granite stone jelly for all reinforced cement concrete works connected to this work excluding centering, shuttering and cost of reinforcement grills placed in position, but including laying, vibrating, curing and finishing, fixing fan clamps in the RCC floor and roof slab works wherever necessary and bearing surfaces of the wall at the sides and bottom of the slab, beams shall be finished smooth with cement mortar 1:3 and kraft paper laid without claiming extra cost etc., complete complying with standard specification.	28.61	9282.57	cum	265537

6387

ABSTRACT ESTIMATE**MODEL ESTIMATE FOR CONSTRUCTION OF FOREST POND UNDER WILDLIFE
MITIGATION PLAN IN INNERJAWADHIRE IN KAVALUR SECTION IN ALANGAYAM RANGE
OF TIRUPATTUR DIVISION.**

12/6/2025

Sl. No	Description of Work	Quantity	Rate	Per	Amount
1	2	3	4	5	6
1	Clearing the Scrub jungle growth in the bund and water spread for formation of bund	120.00	4.40	cum	528
2	Earth work excavating and depositing on bank in H.G. Soil as per SS20B and SI.62 for Bund Formation	106.35	168.48	cum	17918
3	Cement Concrete 1:3:6 using 40 mm iss H.G Metal including cost and conveyance of all materials at site, labour charges, curing etc., complete and as directed by the department officers	15.86	6452.12	cum	102331
4	Supplying and erecting Centering for sides and soffits including supports and strutting upto 3.29m high for plane surfaces such as RCC SLABS, RECTANGULAR BEAMS, TEE or ELL BEAMS, LINTELS, BED BLOKS, STAIRCASE WAIST and landing slabs, landing beams, canopy etc., in all floors with all cross bracings using mild steel sheets of size 90cm x 60cm and BG 10 stiffened wit welded mild steel angles of size 25mm * 25mm x 3mm for boarding laid over countrywood joists of size 10cmx 6.50cm spaced at about 90cm centre and supported by casuarian props of 10cm to 13cm dia spaced at 75cm centre etc., complete and as directed.	25.02	1121.95	sqm	28071
5	Cement Concrete 1:2:4 using machine crushed / Hand Broken 20mm gauge hard broken granite stone jelly for all reinforced cement concrete works connected to this work excuding centering, shuttering and cost of reinforcement grills placed in position, but including laying, vibrating, curing and finishing, fixing fan clamps in the RCC floor and roof slab works wherever necessary and bearing surfaces of the wall at the sides and bottom of the slab, beams shall be finished smooth with cement mortar 1:3 and kraft paper laid without claiming extra cost etc., complete complying with standard specification.	28.61	9282.57	cum	265537

6	Supplying fabrication and placing in position mild steel rods for reinforced including cost of steel all works	610.30	0008.53	100 kgs	45971
7	Plastering with Cement Mortar 1:5, 12 mm thick in all floors complying with standard specification (S.I.306)	25.02	320.60	cum	8021
	Subtotal				468377
8	GST 12%				56205
9	LWF 1%				4684
10	Contingencies for meetout unforeseen expenditure				734
	TOTAL				530000

Specification

The estimate is prepared based on the PWD SSR for the year 2021-2022. Construction of a Forest Pond in Innerjawadhi RF of Alangayam Range for drinking water facility to the wild animals. Hence, the wild animals may not come outside of the RF and wandering for drinking water. Therefore the estimate may kindly be approved.

Sir,

Submitted to the District Forest Officer,
Tirupattur Division, Tirupattur.

COUNTERSIGNED

[Signature]
District Forest Officer
Tirupattur Division

[Signature]
01/09/25

[Signature]
Forest Range Officer,
Alangayam Range,
Alangayam, TPT.Dt.

DETAILED ESTIMATE

MODEL ESTIMATE FOR CONSTRUCTION OF FOREST POND UNDER WILDLIFE MITIGATION PLAN IN INNERJAWADHI RE IN KAVALUR SECTION IN ALANGAYAM RANGE OF TIRUPATTUR DIVISION

Sl. No.	DESCRIPTION OF WORK	No.	L	B	D	QTY	
1	2	3	4	5	6	7	
1	Clearing the Scrub jungle growth in the bund and water spread for formation of bund						
		1X1	1	12.00	10.00	-	120.00
							120.00 sqm
2	Earth work excavating and depositing on bank in H.G. Soil as per SS20B and SI.62 for Bund Formation						
	For Pond						
	Top portion	1x1	1	12.00	10.00	0.35	42.00
	Bottom Portion	1X1	1	10.00	7.15	0.90	64.35
					(11.2+3.1)/2		
							106.35 cum
3	Cement Concrete 1:3:6 using 40 mm lss H.G Metal including cost and conveyance of all materials at site, labour charges, curing etc., complete and as directed by the department officers						
	For Pond	1x1	1	12.20	10.00	0.13	15.86
							15.86 cum
4	Supplying and erecting Centering for sides and soffits including supports and strutting upto 3.29m high for plane surfaces such as RCC SLABS, RECTANGULAR BEAMS, TEE or ELL BEAMS, LINTELS, BED BLOSBS, STAIRCASE WAIST and landing slabs, landing beams, canopy etc., in all floors with all cross bracings using mild steel sheets of size 90cm x 60cm and BG 10 stiffened wit welded mild steel angles of size 25mm x 25mm x 3mm for boarding laid over countrywood joists of size 10cmx 6.50cm spaced at about 90cm centre and supported by casuarian props of 10cm to 13cm dia spaced at 75cm centre etc., complete and as directed.						
	For side walls BGL	1X2	2	7.10	-	0.90	12.78
				(11.1+3.1)/2			
	For side walls AGL	2X2	4	5.10	-	0.60	12.24
							25.02 sqm

1	2	3	4	5	6	7	
5	Cement Concrete 1:2:4 using machine crushed / Hand Broken 20mm gauge hard broken granite stone jelly for all reinforced cement concrete works connected to this work excluding centering, shuttering and cost of reinforcement grills placed in position, but including laying, vibrating, curing and finishing, fixing fan clamps in the RCC floor and roof slab works wherever necessary and bearing surfaces of the wall at the sides and bottom of the slab, beams shall be finished smooth with cement mortar 1:3 and kraft paper laid without claiming extra cost etc., complete complying with standard specification.						
	For side walls BGL	1X2	2	7.10	0.30	0.90	3.83
				(11.1+3.1)/2			
	For side walls AGL	1X2	2	5.10	0.30	0.60	1.84
	For Pond	1x1	1	12.20	9.40	0.20	22.94
							28.61 cum
6	Supplying fabrication and placing in position mild steel rods for reinforced including cost of steel all works						
	For side walls	1X1	1	5.67	90.00	Kg/m ³	510.30
	Total						510.30 Kgs
7	Plastering with Cement Mortar 1:5, 12 mm thick in all floors complying with standard specification (S.I.306)						
	For side walls BGL	1X2	2	7.10	-	0.90	12.78
				(11.1+3.1)/2			
	For side walls AGL	2X2	4	5.10	-	0.60	12.24
							25.02 cum
8	GST 12%						
9	LWF 1%						
10	Contingencies for meetout unforeseen expenditure						
							L.S

COUNTERSIGNED

District Forest Officer
Tirupattur Division

Forest Range Officer,
Alangayam Range,
Alangayam, TPT.Dt.

DATA SHEET						
Sl. No	Quantity		Description of Work	Rate	Per	Amount
1			<u>Cement Mortar 1:2</u>			
	720	Kg	Cement	6419.63	M.T	4622.13
	1.00	Cum	Sand	2337.57	Cu.m	2337.57
	1.00	Cum	Mixing Mortar	87.00	Cu.m	87.00
			add 40% extra for JAWADHU HILLS			34.80
						7081.50
2			<u>Cement Mortar 1:3</u>			
	480	Kg	Cement	6419.63	M.T	3081.42
	1.00	Cum	Sand	2337.57	Cu.m	2337.57
	1.00	Cum	Mixing Mortar	87.00	Cu.m	87.00
			add 40% extra for JAWADHU HILLS			34.80
						5540.79
3			<u>Cement Mortar 1:4</u>			
	360	Kg	Cement	6419.63	M.T	2311.07
	1.00	Cum	Sand	2337.57	Cu.m	2337.57
	1.00	Cum	Mixing Mortar	87.00	Cu.m	87.00
			add 40% extra for JAWADHU HILLS			34.80
						4770.44
4			<u>Cement Mortar 1:5</u>			
	288	Kg	Cement	6419.63	M.T	1848.85
	1.00	Cum	Sand	2337.57	Cu.m	2337.57
	1.00	Cum	Mixing Mortar	87.00	Cu.m	87.00
			add 40% extra for JAWADHU HILLS			34.80
						4308.22
5	Earth work Excavation and depositing on bank with an initial lead of 10 m and lift of 2 m in hard stiff clay, stiff black cotton, hard red earth, shales, murrums, stoney earth, earth mixed with small size boulders, and hard gravelly soil for foundation as per SS 20 B					
	1.00	Cum	AS per SS 20 B	70.20	Cu.m	70.20
			Add 100 % Extra			70.20
			add 40% extra for JAWADHU HILLS			28.08
						168.48
10	Cement Concrete 1:2:4 using machine crushed / Hand Broken 20mm gauge hard broken granite stone jelly for all reinforced cement concrete works connected to this work excuding cenetering, shuttering and cost of reinforcement grills placed in position, but including laying, vibrating, curing and finishing, fixing fan clamps in the RCC floor and roof slab works wherever necessary and bearing surfaces of the wall at the sides and bottom of the slab, beams shall be finished smooth with cement mortar 1:3 and kraft paper laid without claiming extra cost etc., complete complying with standard specification.					
	9.00	Cu.M	20 mm ISS H.G Metal	2018.01	Cu.M	18162.09
	4.50	Cu.M	Sand	2337.57	Cu.M	10519.07
	3231	Kg	Cement	6419.63	Kg	20741.82
	3.50	Nos	Mason II class	804.00	Nos	2814.00
	21.20	Nos	Mazdoor I Class	562.00	Nos	11914.40
	35.30	Nos	Mazdoor II Class	461.00	Nos	16273.30

			add 40% extra for JAWADHU HILLS			12400.68
						0.30
						92825.66
			Basic rate			9282.57
12	Cement Concrete 1:3:6 using 40 mm Iss H.G Metal including cost and conveyance of all materials at site, labour charges, curing etc., complete and as directed by the department officers					
	9.00	Cum	40 mm ISS H.G Metal	1015.01	Cu.m	14535.09
	4.50	Cum	Cement Mortar 1:3	5540.79	Cu.m	24933.57
	1.80	Nos	Mason II class	804.00	Each	1447.20
	17.70	Nos	Mazdoor I Class	562.00	Each	9947.40
	14.10	Nos	Mazdoor II Class	461.00	Each	6500.10
			add 40% extra for JAWADHU HILLS			7157.88
						64521.24
			Basic rate			6452.12
13	Supplying and erecting Centering for sides and soffits including supports and strutting upto 3.29m high for plane surfaces such as RCC SLABS, RECTANGULAR BEAMS, TEE or ELL BEAMS, LINTELS, BED BLOKS, STAIRCASE WAIST and landing slabs, landing beams, canopy etc., in all floors with all cross bracings using mild steel sheets of size 90cm x 60cm and BG 10 stiffened wit welded mild steel angles of size 25mm * 25mm x 3mm for boarding laid over countrywood joists of size 10cmx 6.50cm spaced at about 90cm centre and supported by casuarina props of 10cm to 13cm dia spaced at 75cm centre etc., complete and as directed.					
			M.S Sheet 90cm x 60cm, 10guage required			
			0.54 m2 x 3.175 x 7.85	13.46		
			M.S. Angle 25mm x 25mm x 3mm			
			3.60 x 1.10 3.96 (or) 4.00 kg			
			<u>SUB DATA - I</u>			
	13.46	Kg	M.S Sheet 10 guage cost	47.30	Kg	636.66
	4.00	Kg	M.S. Sheet angle including cutting,	47.30	Kg	189.20
	LS		Cutting, bending and welding charges			52.20
						878.06
			<u>SUB DATA :2</u>			
	19	Nos	MS Sheet and Angle	878.06	Nos	16683.10
			Assuming 40 uses	Single use		417.08
			<u>Strutting</u>			
	98.60	RM	Casuarina props 10cm to 13cm dia	25.20	RM	2482.20
	0.12	M3	Silver Oak (country wood joists)	17600.00	M3	2112.00
						4594.20
			Assuming 5 uses	Rate for single use		918.84
			<u>Main Data</u>			

	1.00	Use	M.S Sheet and angle	417.08	Use	417.08
	1.00	Use	Shoring with country wood joists and truss	918.84	Use	918.84
	3.80	Nos	Carpenter I Class	842.00	Nos	3199.60
	1.00	Nos	Filler II class	739.00	Nos	739.00
	5.40	Nos	Mazdoor I class	562.00	Nos	3034.80
	L.	S.	Add for periodical cleaning and painting of MS sheets & angles			60.00
	L.	S.	Add for wedges, nails etc.	LS		60.00
			add 40% extra for JAWADHU HILLS			2789.36
						0.78
						11219.46
						1121.95
			add for columns 20%			224.39
						1346.33
14			strutting to centering of RCC slabs up to 3 m height			
	98.5		Casurina props 10 to 13cm dia	25.20	m	2482.20
			Cost for 1 operation			496.44
	0.3		Carpenter 1 class	842.00	e	252.60
	0.3		Mazdoor cat I	562.00	e	168.60
			Wedges, nails, coils etc.,			60.00
			add 40% extra for JAWADHU HILLS			168.48
						917.52
			rate per m2 (/30	1026.18/30		30.58
15			Centering and strutting for various heights			
			of service reservoir			
			for slabs			
			up to 3.3 m height			1152.53
			3.31m to 4.30m			1183.11
			4.31m to 5.30m height			1213.70
			5.31m to 6.30m height			1244.28
			6.31m to 7.30m height (			1274.87
			7.31m to 8.30m height			1305.45
			for square columns			
			up to 3.3 m height			1376.92
			3.31m to 4.30m			1407.50
			4.31m to 5.30m height			1438.09
			5.31m to 6.30m height(			1468.67
			6.31m to 7.30m height			1499.25
			7.31m to 8.30m height			1529.84

16	Supplying fabrication and placing in position mild steel rods for reinforced including cost of steel all works					
	1.00	Qtl	Steel	52337.88	MT	5233.79
	1.00	Kg	Binding wire	50.30		50.30
	3.50	Nos	Filler I class	760.00	Nos	2660.00
			add 40% extra for JAWADHU HILLS			1064.00
						0.44
						9008.53
10	Plastering with Cement Mortar 1:5, 12 mm thick in all floors complying with standard					
	0.14	M ³	CM 1:5	4308.22	M ³	603.15
	1.10	Each	Mason I Class	861.00	Each	947.10
	0.50	Each	Mazdoor I Class	562.00	Each	281.00
	1.10	Each	Mazdoor II Class	461.00	Each	507.10
		Add	20% Extra for R.F			867.60
			Rate per 10 M ²			3205.95
			Rate per M ²			320.60

COUNTERSIGNED

District Forest Officer,
Tirupattur Division

01/09/25


Forest Range Officer,
Alangayam Range,
Alangayam, TPT.Dt.

LEAD STATEMENT

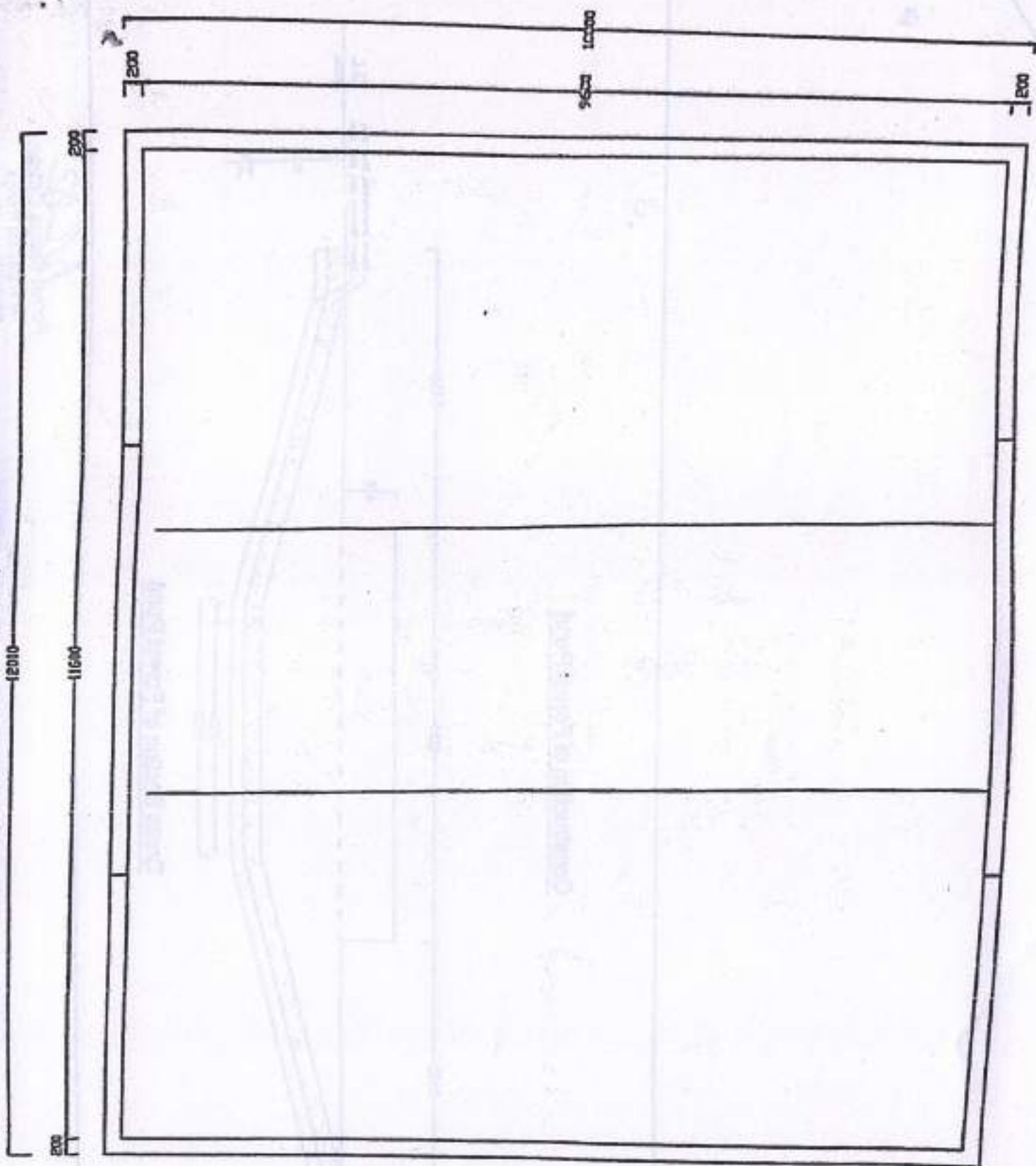
S. No	Material	Source	Distance(Km)		Cost of Material	Cost of Transport		Cost of Transport	Head load charges	Total Cost
			plains	hills		plains	hills			
1	Cement	Alangayam	4	7	5960.00	27.84	95.44	336.35		6419.63
2	M Sand	Hosur	84	7	1280.00	719.06	107.66	230.85		2337.57
3	Rough stone	Vellakuttai	17	7	445.00	177.94	122.72	285.35		1031.01
4	Bond stone	Vellakuttai	17	7	642.00	177.94	122.72	285.35		1228.01
5	40 MM jelly	Vellakuttai	17	7	1029.00	177.94	122.72	285.35		1615.01
6	20 MM jelly	Vellakuttai	17	7	1432.00	177.94	122.72	285.35		2018.01
7	Steel	Alangayam	4	7	51750.00	27.84	95.44	464.60		52337.88

Certified that the distance provided in the estimate material is as per the actual source and the distance is found to be correct to the best of my knowledge

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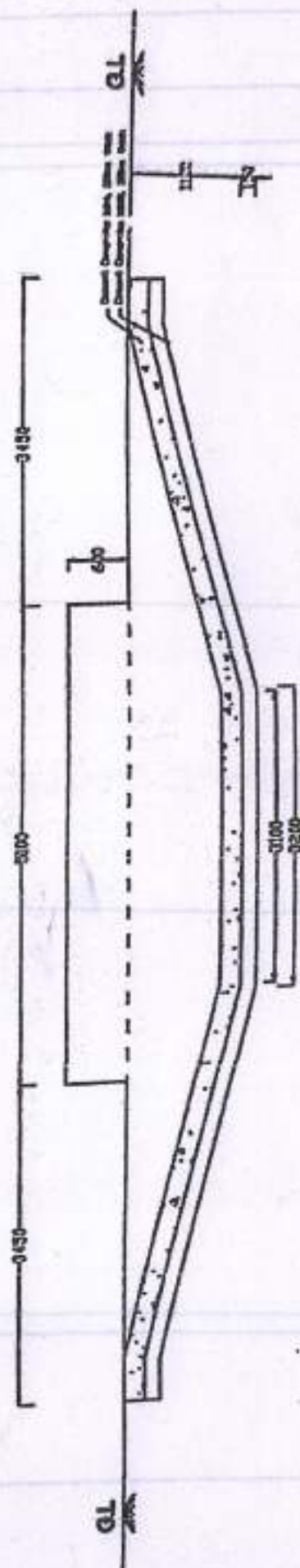

 Forest Range Officer,
 Alangayam Range,
 Alangayam, TPT.Ot.

PLAN FOR FOREST POND



[Signature]
Forest Range Officer,
Alangayam Range,
Alangayam, TPT.DL

Construction of Forest Pond



Cross Section of Forest Pond

Forest Range Officer,
Alangayam Range,
Alangayam, T.P.T. Dt.

ABSTRACT ESTIMATE

ESTIMATE FOR CONSTRUCTION OF CHECK DAM UNDER SOIL & MOISTURE CONSERVATION WORK IN INNER JAWADHU RF OF KAVALUR SECTION @ ALANGAYAM RANGE IN TIRUPATTUR FOREST DIVISION DURING 2025-27

Sl. No	Description of Work	Quantity	Rate	Per	Amount
1	2	3	4	5	6
1	Clearing the Scrub jungle growth in the bund and water spread for formation of bund	625.00	8.27	M ²	5168
2	Earth work excavating and depositing on bank in H.G. Soil as per SS20B and Sl.61 for Bund Formation	58.29	369.29	M ³	21526
3	Cement Concrete 1:3:6 (One Cement, Three M.Sand and Six broken stone jelly) using 40mm size hard broken stone jelly for dummy columns,	21.25	7643.21	M ³	162418
4	Supplying and erecting steel centering including necessary supports for plane surfaces for Reinforced Cement Concrete works such as	166.35	1474.00	M ²	245200
5	Cement Concrete 1:2:4 (one cement, two M.Sand and four hard broken stone jelly) using 20mm jelly for wearing coat including laying, compacting,	50.25	8680.26	M ³	436183
6	Supplying fabrication and placing in position mild steel rods for reinforcement including cost and conveyance of all labour charges etc.,	2.52	106258.70	M ³	267772
7	Supplying and fixing of innaguration stone	1.00	6000.00	No	6000
	Subtotal				1144267
7	GST 18%				205968
8	LWF 1%				11443
9	Contingencies for Documentation & meetout unforeseen expenditure				3322
	TOTAL				1365000

Specification

The estimate is prepared based on the PWD SSR for the year 2025-26. No. of wells will be benefited on completion of this work. This estimate may kindly be sanctioned at the earliest.

C.No. 109 /2026 Dt. 14.05.2026

Sir,

Submitted to the District Forest Officer, Tirupattur Forest Division

F/C
COUNTERSIGNED
District Forest Officer,
Tirupattur Division.

Forest Range Officer,
Alangayam Range,
Alangayam, TPT. Dt.

DETAILED ESTIMATE

**ESTIMATE FOR CONSTRUCTION OF CHECK DAM UNDER SOIL & MOISTURE
CONSERVATION WORK IN INNER JAWADHU RF OF KAVALUR SECTION @
ALANGAYAM RANGE IN TIRUPATTUR FOREST DIVISION DURING 2025-26**

[illegible]

1	2	3	4	5	6	7	8
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						
	<u>B.G.L</u>						
	Body Wall (Weir)						
	First Footing	2	2	5.00	0.30	6.00	
	Second Footing	2	2	5.00	0.30	6.00	
	Guide Wall						
	First Footing (Outer Side)	2	2	4.90	0.30	5.88	
	First Footing (Inner Side)	2	2	2.40	0.30	2.88	
	Second Footing (Outer Side)	2	2	4.90	0.30	5.88	
	Second Footing (Inner Side)	2	2	2.90	0.30	3.48	
	Cut off Wall in U/S	2	1	5.00	0.30	3.00	
	Cut off Wall in D/S	2	1	5.00	0.30	3.00	
	Core Wall						
	First Footing	2	2	15.35	0.30	18.42	
	Second Footing	2	2	15.35	0.30	18.42	
	<u>A.G.L</u>						
	Body Wall (Weir)						
	In U/S	1	1	5.00	1.20	6.00	
	In D/S	1	1	5.00	1.50	7.50	
	Guide Wall						
	Outer Side	2	2	4.90	1.20	23.52	
	Inner Side	2	2	2.15	1.20	10.32	
	Core Wall	1	2	15.35	1.50	46.05	
						166.35	M ³

1	2	3	4	5	6	7
4	Cement Concrete 1:2:4 (one cement, two M.Sand and four hard broken stone jelly) using 20mm jelly for wearing coat including laying, compacting, finishing and curing, etc., complete as per standard specifications and as directed by the departmental officers.					
	B.G.L					
	Body Wall (Weir)					
	First Footing	1	1	5.00	1.70	2.55
	Second Footing	1	1	5.00	1.40	2.10
	Guide Wall					
	First Footing (Outer Side)	1	2	3.65	0.75	1.64
	First Footing (Inner Side)	1	2	3.90	0.60	1.40
	Impervious Apron Adjoint to the weir both sides	2	2	5.60	0.60	2.02
	Cut off Wall in U/S	1	1	6.20	0.15	0.42
	Impervious Apron in U/S	1	1	6.20	2.00	1.86
	Cut off Wall in D/S	1	1	6.20	0.15	0.42
	Impervious Apron in D/S	1	1	6.20	2.00	1.86
	Core Wall					
	First Footing	1	2	15.35	0.75	6.91
	Second Footing	1	2	15.35	0.60	5.53
	A.G.L					
	Body Wall (Weir)	1	1	5.00	0.63	3.78
				$\frac{(0.80+0.45)}{2}$		
	Providing shape in D/S of Weir	1	1	5.00	0.04	0.30
	Guide Wall			$(\frac{1}{3}) \times 0.25 \times 0.30$	$(\frac{1}{3})(bx d)$	
	Outer Side	1	2	4.15	0.45	4.48
	Revertment work in Side of earthen bund	1	4	2.15	1.35	1.16
	Core Wall	1	1	15.35	0.60	13.82
						50.25 M³

1	2	3	4	5	6	7	8
5	Supplying fabrication and placing in position mild steel rods for reinforcement including cost and conveyance of all labour charges etc.,						
	For Weir, Apron and Cut off Wall	1	1	28.02	90.00		2521.80
							2.52 MT
6	Supplying and fixing of innaguration stone						
	Size 0.75m x 0.5m	1X1	1	-	-	-	1.00
							1.00 No
7	GST 18%						L.S
8	LWF 1%						L.S
9	Contingencies for meetout unforeseen expenditure						L.S

F/C

COUNTERSIGNED

District Forest Officer
Tirupattur Division

15/5/2020

15/05/20

Forest Range Officer,
Alangayam Range,
Alangayam, TPT.Dt.

DATA

Sl. No	QTY	Unit	Description Item	Rate	Per	Amount
1	2	3	4	5	6	7
1	CEMENT MORTAR 1 : 2					
	0.72	MT	Cement	5695.00	MT	4100.400
	1	M ³	Sand	2035.94	M ³	2035.940
	1	M ³	Mixing Charges (PWD SSR W-0164)	136.53	M ³	136.530
		Add	20% Extra for R.F			27.31
			Rate Per Cum			6300.18
2	CEMENT MORTAR 1 : 5					
	0.288	MT	Cement	5695.00	MT	1640.16
	1	M ³	Sand	2035.94	M ³	2035.94
	1	M ³	Mixing Charges	136.53	M ³	136.53
		Add	20% Extra for R.F			27.31
			Rate Per M ³			3839.94
MAIN DATA						
1	Clearing the light Jungle growth					
	1.00	sqm	Light Jungle Clearing	6.89	sqm	6.89
			20% Extra for R.F			1.38
			Rate per sqm			8.27


Forest Range Officer,
Alangayam Range,
Alangayam, TPT.Dt.

ABSTRACT ESTIMATE

ESTIMATE FOR CONSTRUCTION OF A PERCOLATION POND IN KAVALUR @ ALANGAYAM RANGE IN TIRUPATTUR FOREST DIVISION DURING 2025-27

Sl. No	Description of Work	Quantity	Rate	Per	Amount
1	2	3	4	5	6
1	Clearing the Scrub jungle growth in the bund and water spread for formation of bund	5000.00	8.27	M ²	41340
2	Earth work excavating and depositing on bank in H.G.Soil as per SS20B and SI.61 for Bund Formation				
a)	Top soil removal	304.16	158.27	M ³	48139
b)	For key Trench	56.25	158.27	M ³	8903
3	Earth work excavating and depositing on bank in H.G.Soil as per SS20B and SI.61 for Bund Formation	3212.60	158.27	M ³	508452
a)	Extra one lead over the initial lead for 40% of the above Qty	1285.04	15.95	M ³	20496
b)	Extra two lead over the initial lead for 35% of the above Qty	1124.41	31.90	M ³	35869
c)	Extra three lead over the initial lead for 25% of the above Qty	803.15	47.85	M ³	38431
d)	Extra one lift over the initial lift for 25% of the above Qty	803.15	12.42	M ³	9975
e)	Extra two lift over the initial lift for 15% of the above Qty	481.89	24.84	M ³	11970
4	Earth work excavating and depositing on bank in H.G.Soil for foundation	28.05	290.16	M ³	8139
5	Earthwork for apron	12.39	158.27	M ³	1961
6	Laying and consolidation of CC 1:5:10 using 40mm metal	17.53	7198.40	M ³	126170
7	Random Rubble Masonry in CM 1:5 including cost and conveyance etc Complete Complying with standard specification	38.62	8424.10	M ³	325334

8	Laying and consolidation of CC 1:2:4 using 20mm metal	3.10	8680.26	M ³	26887
9	Plastering in C:M 1:5-20mm Thick	25.30	388.99	M ²	9841
10	Supplying and fixing of innaguration stone	1.00	6000.00	No	6000
	Subtotal				1227907
11	GST 18%				221023
12	LWF 1%				12279
13	Contingencies for Documentation & meetout unforeseen expenditure				790
	TOTAL				1462000

Specification

The estimate is prepared based on the PWD SSR for the year 2025-26. No.of wells will be benefited on completion of this work. This estimate may kindly be sanctioned at the earliest.

C.No. 108/2026 Dt. 14.05.2026

Sir,

Submitted to the District Forest Officer, Tirupattur Forest Division

F/C

Forest Range Officer,
Alengayam Range,
Alengayam, TPT.Dt.

COUNTERSIGNED

District Forest Officer,
Tirupattur Division

15/5/2026
15/05/2026

DETAILED ESTIMATE

ESTIMATE FOR CONSTRUCTION OF A PERCOLATION POND IN KAVALUR @ ALANGAYAM RANGE IN TIRUPATTUR FOREST DIVISION DURING 2025-26

Sl. No	DESCRIPTION OF WORK	No.	L	B	D	QTY	Unit
1	2	3	4	5	6	7	
1	Clearing the Scrub jungle growth in the bund amd water spread for formation of bund						
		1X1	1	100.00	50.00	-	5000.00
							5000.00 M ²
2	Earth work excavating and depositing on bank in H.G.Soil as per SS20B and SI.62 for Bund Formation						
a)	Top soil removal						
	0 m to 22 m	1X1	1	22.00	4.00	0.30	26.40
					(3+5)/2		
	22 m to 52 m	1X1	1	30.00	6.50	0.30	58.50
					(5+8)/2		
	52 m to 62 m			CORE WALL			
	62 m to 97 m	1X1	1	35.00	14.38	0.30	150.94
					(17+11.75)/2		
	97 m to 115 m	1X1	1	18.00	9.88	0.30	53.33
					(11.75+8)/2		
	115 m to 125 m			weir			
	125 m to 135 m	1X1	1	10.00	5.00	0.30	15.00
							304.16 M ³
b)	For key Trench						
	at mid of bund 0m to 52m	1x1	1	52.00	1.50	0.30	23.40
	at mid of bund 52m to 62m			core wall			
	at mid of bund 62m to 135m	1x1	1	73.00	1.50	0.30	32.85
							56.25 M ³
3	Earth work excavating and depositing on bank in H.G.Soil as per SS20B and SI.62 for Bund Formation						
	for bund formation						
	0 m to 10 m	1X1	1	10.00	12.69		126.85
					(7.87+17.5)/2		
	10 m to 20 m	1X1	1	10.00	19.75		197.50
					(17.50+22)/2		
	20 m to 30 m	1X1	1	10.00	22.00		220.00
					(22+22)/2		

1	2	3	4	5	6	7	
	30 m to 40 m	1X1	1	10.00	22.00	220.00	
					(22+22)/2		
	40 m to 52 m	1X1	1	12.00	29.63	355.50	
					(22+37.25)/2		
	52 m to 62 m	1X1	1	10.00	38.63	386.25	
					(37.25+40.00)/2		
	62 m to 70 m	1X1	1	8.00	38.00	304.00	
					(40+36)/2		
	70 m to 80 m	1X1	1	10.00	37.00	370.00	
					(36+38)/2		
	80 m to 90 m	1X1	1	10.00	31.50	315.00	
					(38+25)/2		
	90 m to 100 m	1X1	1	10.00	25.00	250.00	
					(25+25)/2		
	100 m to 115 m	1X1	1	15.00	23.50	352.50	
					(25+22)/2		
	115 m to 125 m	Weir					
	125 m to 135 m	1X1	1	10.00	11.50	115.00	
					(13+10)/2		
						3212.60	M ³
a	Add Top soil Removal Qty					0.00	M ³
						3212.60	M ³
4	Earth work excavating and depositing on bank in H.G.Soil for foundation						
	for Corewall	1x1	1	10.70	0.75	1.00	8.03
	For Weir						
	Bodywall	1x1	1	8.00	0.75	0.75	4.50
	Abutment-left	1x1	1	3.00	0.75	0.75	1.69
	Abutment-right	1x1	1	3.00	0.75	0.75	1.69
	Side walls-U/S	1x2	2	3.80	0.75	0.75	4.28
	Side walls-D/S	1x2	2	3.80	0.75	0.75	4.28
	Cutoff wall	1X1	1	10.00	0.60	0.60	3.60
						28.05	M ³
5	Soild apron	1X1	1	(8.00+9.70)/2	3.50	0.40	12.39 M ³
6	Laying and consolidation of CC 1:5:10 using 40mm metal						
	for Corewall	1x1	1	10.70	0.75	0.20	1.61
	For Weir						
	Bodywall	1x1	1	8.00	0.75	0.30	1.80
	Abutment-left	1x1	1	3.00	0.75	0.30	0.68
	Abutment-right	1x1	1	3.00	0.75	0.30	0.68
	Side walls-U/S	1x2	2	3.80	0.75	0.20	1.14
	Side walls-D/S	1x2	2	3.80	0.75	0.20	1.14
	Cutoff wall	1X1	1	10.00	0.60	0.20	1.20

1	2	3	4	5	6	7	
	Soild apron	1X1	1	$(8.00+9.70)/2$	3.50	0.30	9.29
						17.53	M ³
7	Random Rubble Masonry in CM 1:5 including cost and conveyance etc Complete Complying with standard specification						
	<u>B.G.L</u>						
	Core wall	1x1	1	10.70	0.60	0.60	3.85
	Bodywall	1x1	1	8.00	0.60	0.60	2.88
	Abutment- Left	1x1	1	3.00	0.50	0.45	0.68
	Abutment- Right	1x1	1	3.00	0.50	0.45	0.68
	Side walls-U/S	1x2	2	3.80	0.50	0.60	2.28
	Side walls-D/S	1x2	2	3.80	0.50	0.60	2.28
	Cutoff wall	1X1	1	10.00	0.50	0.60	3.00
	<u>A.G.L</u>						
	Core wall (step 1)	1x1	1	10.70	0.60	1.00	6.42
	weir	1x1	1	8.00	0.55	1.00	4.40
				$(0.8+0.50)/2$			
	Abutment- Left	1x1	1	3.00	0.50	1.20	1.80
	Abutment- Right	1x1	1	3.00	0.50	1.20	1.80
	Side wall-U/S	1x2	2	3.80	0.50	0.90	3.42
						$(1.40+0.60)/2$	
	Side walls-D/S	1x2	2	3.80	0.50	1.00	3.80
						$(1.40+0.60)/2$	
	Cutoff wall	1X1	1	10.70	0.50	0.25	1.34
						38.62	M ³
8	Laying and consolidation of CC 1:2:4 using 20mm metal						
	Apron	1X1	1	$(8.00+9.70)/2$	3.50	0.10	3.10
							M ³
9	Plastering in C:M 1:5-20mm Thick						
	Bodywall	1x1	1	8.00	0.50		4.00
	Abutment- Left	1x1	1	3.00	0.50		1.50
	Abutment- Right	1x1	1	3.00	0.50		1.50
	Side walls-U/S	1x2	2	3.80	0.50		3.80
	Side walls-D/S	1x2	2	3.80	0.50		3.80
	Cutoff wall	1X1	1	10.70	1.00		10.70
						25.30	M ²
10	Supplying and fixing of innaguration stone						
	Size 0.75m x 0.5m	1X1	1	-	-	-	1.00
							1.00
							No
11	GST 18%						L.S
12	LWF 1%						L.S
13	Contingencies for meatout unforeseen expenditure						L.S

FIC
15/5/26

District Forest Officer

Forest Range Officer,
Alangayam Range,
Alangayam TPT Dt.

DATA

Sl. No	QTY	Unit	Description Item	Rate	Per	Amount
1	2	3	4	5	6	7
1	CEMENT MORTAR 1 : 2					
	0.72	MT	Cement	5695.00	MT	4100.400
	1	M ³	Sand	2035.94	M ³	2035.940
	1	M ³	Mixing Charges (PWD SSR W-0164)	136.53	M ³	136.530
		Add	20% Extra for R.F			27.31
			Rate Per Cum			6300.18
2	CEMENT MORTAR 1 : 5					
	0.288	MT	Cement	5695.00	MT	1640.16
	1	M ³	Sand	2035.94	M ³	2035.94
	1	M ³	Mixing Charges	136.53	M ³	136.53
		Add	20% Extra for R.F			27.31
			Rate Per M ³			3839.94
MAIN DATA						
1	Clearing the light Jungle growth					
	1.00	sqm	Light Jungle Clearing	6.89	sqm	6.89
			20% Extra for R.F			1.38
			Rate per sqm			8.27
2	Earthwork excavating and depositing on Bank in H.G.Soil for bund formation (SS20B) with 3 lead and 2 lift					
	1	cum	SS20B (PWD SSR W-0061)	131.89	M ³	131.89
			20% Extra for R.F			26.38
					M ³	158.27
			Extra average 1 lead		M ³	174.22
			Extra average 2 lead		M ³	190.17
			Extra average 3 lead		M ³	206.12
			Extra 1 Lift		M ³	12.42
			Extra 2 Lift		M ³	24.84
3	Extra watering and consolidation by hand roller					
	1	cum	Sl. No. W-0069 (PWD SSR 2025-26)	27	M ³	27.00
			Add 50% Extra	13.50	M ³	13.50
						40.50
4	Earth work excavation and depositing on Bank with initial lead of 10 mts and initial lift of 2 mts hard Stiff clay, Stiff black cotton, Hard red earth, Shales, Murram, Gravel, Stoney earth mixed with small size boulders.					
	1.00	M ³	Earth Work (PWD SSR W-0061)	131.89	M ³	131.89
			100% for narrow foundation	131.89	M ³	131.89
			20% Extra for R.F			26.38
			Rate per M ³			290.16
5	Earth Work for Apron					
	1.00	M ³	Earth Work (PWD SSR W-0061)	131.89	M ³	131.89
			20% Extra for R.F			26.38
			Rate per M ³			158.27

Sl. No	QTY	Unit	Description Item	Rate	Per	Amount
1	2	3	4	5	6	7
6	Concrete Broken stone (40 mm size) in Cement Mortar 1:5:10 using 40mm gauge hard broken granite stone jelly for foundation including dewatering if found necessary and laid in layer of not more than 15 cm thick and compacted etc., Complete complying with standard specification (S.I.122) - 10 M3					
	9.00	M ³	40 mm Metal	1457.22	M ³	13114.98
	4.50	M ³	CM 1:5	3839.94	M ³	17279.71
	1.80	Each	Mason II Class	1096.00	Each	1972.80
	17.70	Each	Mazdoor I Class	766.00	Each	13558.20
	14.10	Each	Mazdoor II Class	628.00	Each	8854.80
		Add	20% Extra for R.F			4877.16
			Rate Per 10 M ³			59657.65
			Rate Per M ³			5965.77
8	Cement Concrete 1:2:4 using 20 mm iss H.G Metal including cost and conveyance of all materials at site , labour charges, curing etc., complete and as directed by the department officers					
	9.00	Cum	20 mm ISS H.G Metal	1991.72	Cu.m	17925.48
	4.50	Cum	Cement Mortar 1:2	6300.18	Cu.m	28350.79
	1.80	Nos	Mason II class	1096.00	Each	1972.80
	17.70	Nos	Mazdoor I Class	766.00	Each	13558.20
	14.10	Nos	Mazdoor II Class	628.00	Each	8854.80
			add 20% extra for RF			4877.16
			Rate Per 10 M ³			75539.23
			Basic rate			7553.92
7	Random Rubble Masonry in CM 1:5 including cost and conveyance etc Complete Complying with standard specification					
	10.00	M3	Rough stone	906.54	M3	9065.40
	1.00	M3	Bond Stone	1105.54	M3	1105.54
	3.40	M3	CM 1:5	3839.94	M3	13055.78
	7.10	Each	Mason I Class	1174.00	Each	8335.40
	10.60	Each	Mason II Class	1096.00	Each	11617.60
	14.10	Each	Mazdoor I Class	766.00	Each	10800.60
	14.10	Each	Mazdoor II Class	628.00	Each	8854.80
		Add	20% Extra for R.F			7921.68
			Rate Per 10 Cum			70756.80
			Rate Per M ³			7075.68
9	Plastering with Cement Mortar 1:5, 20mm thick Including cost and conveyance etc., Complete complying with standard specification.					
	0.22	M3	CM 1:5	3839.94	M3	844.79
	2.20	Each	Mason I Class	1174.00	Each	2582.80
	0.50	Each	Mazdoor I Class	766.00	Each	383.00
	3.20	Each	Mazdoor II Class	628.00	Each	2009.60
		Add	20% Extra for R.F			995.08
			Rate per 10 M ²			6815.27
			Rate per M ²			681.53


 Forest Range Officer,
 Alangayam Range,
 Alangayam, TPT.Dt.

SOIL AND MOISTURE CONSERVATION WORKS FOR THE PROPOSED PROJECT FOR LEASE OF FOREST LAND TO VAINU BAPPU OBSERVATORY AT KAVALUR, ALANGAYAM RANGE IN TIRUPATTUR FOREST DIVISION

1. INTRODUCTION

The Indian Institute of Astrophysics through the Vainu Bappu Observatory situated at Kavalur in the Jawadhi Hills has been functioning as a premier astronomical research institution since 1965. The observatory was established for astrophysical research, higher education, scientific training, and public outreach activities related to astronomy and space science.

An extent of 100 acres of forest land situated within Inner Jawadhu Reserved Forest under Alangayam Range of Tirupattur Forest Division was leased to the institution through various Government Orders issued from time to time. The observatory has been functioning in harmony with the surrounding forest ecosystem without causing significant disturbance to the ecological balance of the area.

The surrounding reserve forest supports rich floral and faunal diversity. Wildlife species such as Indian Gaur, Sambar Deer, Wild Pig, Barking Deer, Indian Porcupine, Hare, and several species of birds are commonly found in the area. The forest ecosystem also plays an important role in maintaining local climatic stability and groundwater recharge.

Due to seasonal rainfall variations, surface runoff, and increasing anthropogenic disturbances caused by vehicular movement and tourist activities, certain ecological stress factors such as soil erosion, moisture loss, drying of seasonal water sources, and habitat degradation are observed in the adjoining forest areas. In order to improve habitat quality and ecological sustainability, Soil and Moisture Conservation Works are proposed within the reserve forest as part of the Wildlife Mitigation Plan associated with the lease renewal proposal of the observatory.

2. PROJECT BACKGROUND

The proposed Soil and Moisture Conservation Works are intended to improve ecological conditions within the forest area by conserving rainwater, reducing runoff, improving groundwater recharge, and maintaining soil moisture. These measures are proposed in accordance with the provisions of the Forest (Conservation) Act, 1980, the Wildlife (Protection) Act, 1972, and the Tamil Nadu Forest Act, 1882.

The forest area surrounding the observatory in Alangayam Range experiences rapid runoff during monsoon periods due to sloping terrain and shallow soil depth. During summer seasons, moisture deficiency and scarcity of water sources affect both forest vegetation and wildlife. Wild animals often move towards nearby habitations in search of water, thereby increasing the possibility of human-wildlife conflict.

The proposed Soil and Moisture Conservation Works will therefore serve as long-term habitat improvement measures for enhancing ecological stability, improving groundwater recharge, and ensuring sustained availability of water within the reserve forest.

3. NEED FOR THE PROJECT

The Inner Jawadhu Reserved Forest of Alangayam Range receives seasonal rainfall, but a considerable quantity of rainwater flows away as surface runoff due to undulating topography and insufficient water retention structures. This results in soil erosion, depletion of moisture content, reduction in vegetation productivity, and drying of natural streams during summer months.

The lack of adequate water retention structures adversely affects wildlife habitats, particularly during dry seasons. The proposed Soil and Moisture Conservation Works are therefore necessary to arrest runoff, improve infiltration of rainwater into the soil, enhance groundwater recharge, and maintain adequate moisture conditions for forest regeneration and wildlife sustenance.

The project will also contribute to reduction of soil erosion and stabilization of the local ecosystem by improving vegetative growth and soil productivity within the reserve forest area.

4. OBJECTIVES OF THE PROJECT

The objectives of the proposed Soil and Moisture Conservation Works are:

1. To conserve rainwater within the reserve forest area.
2. To improve groundwater recharge and soil moisture retention.
3. To reduce soil erosion and surface runoff.
4. To improve habitat quality for wildlife.
5. To strengthen forest regeneration and vegetation growth.
6. To ensure sustainable ecological conditions within the forest ecosystem.

7. To reduce human-wildlife conflict arising due to scarcity of water during summer seasons.

5. PROJECT LOCATION

The proposed Soil and Moisture Conservation Works are located in Vasanthapuram Beat of Kavalur Section under Alangayam Range in Tirupattur Forest Division within Inner Jawadhu Reserved Forest

Location For Proposed Checkdam: GPS: 12.524066, 78.78312



Location for Proposed Percolation Pond: GPS: 12.522322, 78.781728



The reserve forest extends over approximately 4043.81 hectares and was notified vide G.O. No. 478 Revenue Department dated 28.04.1885.

The forest area forms part of the ecologically important Jawadhi Hills landscape and supports tropical dry deciduous and mixed forest vegetation.

6. DESCRIPTION OF THE FOREST AREA

The Inner Jawadhu Reserved Forest under Alangayam Range forms part of the Tirupattur Forest Division, which contains extensive forest tracts interspersed with valleys, seasonal streams, and undulating terrain. The forest vegetation comprises native tree species, shrubs, grasses, and naturally regenerated growth.

The area supports important wildlife species including Elephant, Indian Gaur, Sambar Deer, Spotted Deer, Sloth Bear, Wild Pig, Porcupine, Jackal, and various avifaunal species. The reserve forest also functions as an important watershed area contributing to groundwater recharge and ecological balance in the region.

The climatic conditions and topographical characteristics of the area make it suitable for implementation of Soil and Moisture Conservation Works aimed at improving habitat conditions and water retention capacity.

7. PROPOSED SOIL AND MOISTURE CONSERVATION WORKS

The project proposes construction of a Check Dam and formation of a Percolation Pond within suitable locations of the reserve forest under Alangayam Range.

The proposed Check Dam will be constructed across a natural drainage channel to arrest surface runoff and retain rainwater during monsoon periods. The structure will help in reducing soil erosion, improving infiltration, and increasing groundwater recharge in the adjoining forest areas. The stored water will also support nearby vegetation and provide a dependable water source for wildlife during dry seasons.

The proposed Percolation Pond will function as a rainwater harvesting structure for collecting and storing seasonal runoff. The pond will facilitate gradual percolation of water into the ground, thereby improving soil moisture and groundwater recharge. The pond will additionally provide water availability for wildlife and improve surrounding habitat conditions.

These conservation structures will collectively improve ecological productivity, reduce degradation of forest soil, and strengthen resilience of the ecosystem against seasonal drought conditions.

8. ENVIRONMENTAL BENEFITS

The proposed Soil and Moisture Conservation Works will generate substantial environmental benefits within the reserve forest ecosystem. The reduction in runoff velocity will minimize soil erosion and help in conservation of fertile topsoil. Improved groundwater recharge and soil moisture retention will support regeneration of native vegetation and improve overall forest health.

Availability of water within the forest area throughout longer periods will reduce the movement of wildlife towards nearby human settlements. This will help in minimizing human-wildlife conflict and improve habitat security for wild animals.

The proposed works will also contribute towards enhancement of local micro-climatic conditions, increased vegetation cover, and improved ecological sustainability within the Jawadhi Hills landscape.

9. WILDLIFE MITIGATION MEASURES

During implementation of the project, all necessary precautions shall be taken to minimize disturbance to wildlife and forest habitat. No tree felling shall be undertaken for the proposed works. Construction activities shall be restricted to daytime only, and no labour camps shall be established inside the forest area.

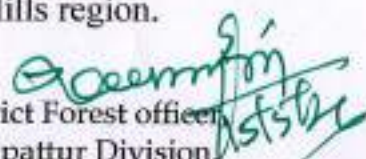
Movement of machinery and vehicles shall be regulated to minimize noise and dust pollution. All waste materials generated during execution shall be properly disposed of without affecting the surrounding environment. Fire prevention measures shall be strictly followed throughout the project period.

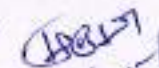
Sl. No	Component	Quantity	Amount (Rs. in Lakhs)	GPS Reading
1	Construction of Check Dam	1 No	13.65	12.524066, 78.78312
2	Construction of Percolation Pond	1 No	14.62	12.522322, 78.781728
		Total	28.27	

15. CONCLUSION

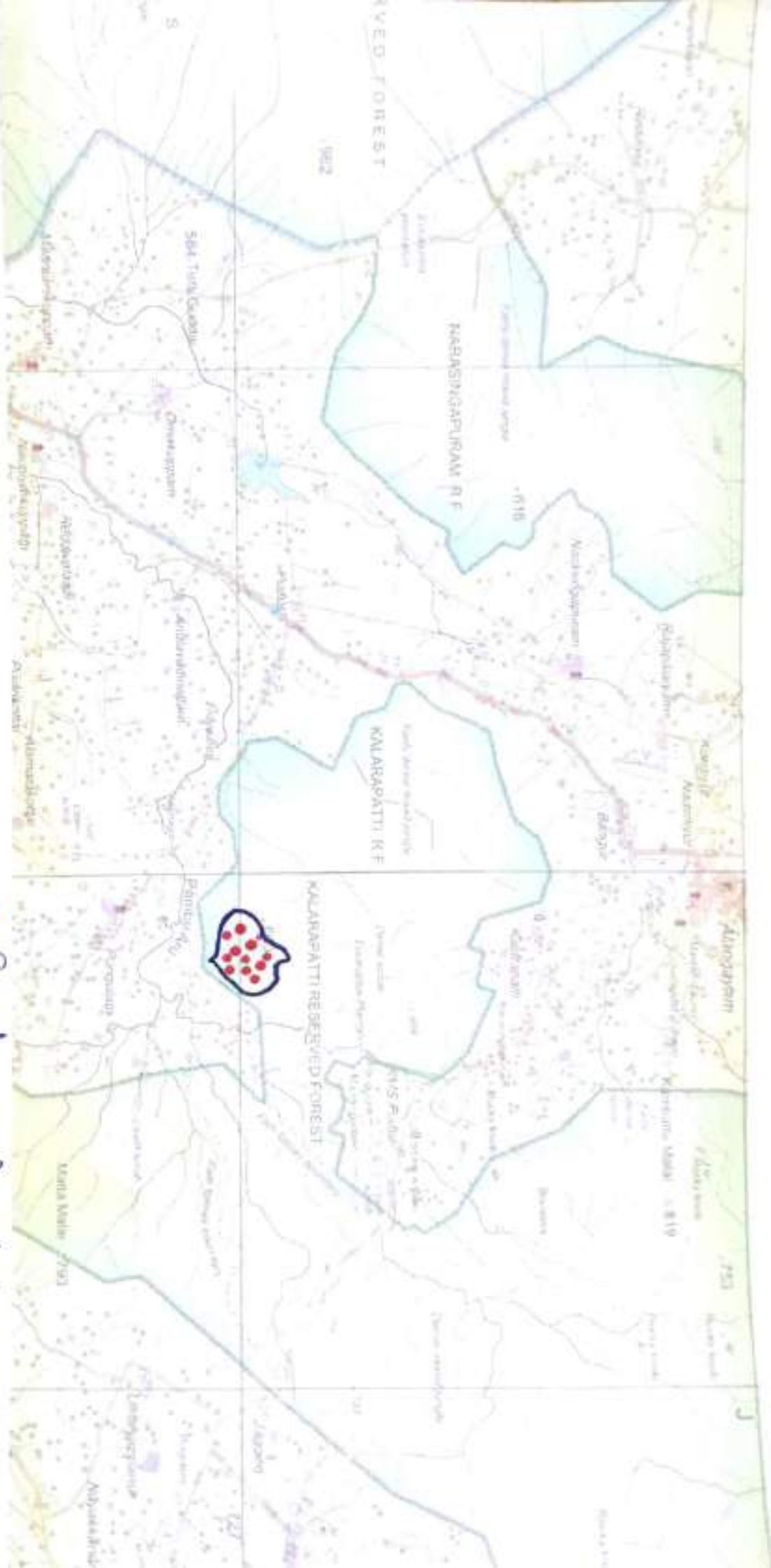
The proposed Soil and Moisture Conservation Works in Inner Jawadhu Reserved Forest under Alangayam Range are essential habitat improvement measures proposed as part of the Wildlife Mitigation Plan associated with the lease renewal proposal of the Indian Institute of Astrophysics for the Vainu Bappu Observatory.

The construction of the Check Dam and Percolation Pond will significantly contribute towards soil conservation, moisture retention, groundwater recharge, and wildlife habitat improvement. The proposed measures will strengthen ecological sustainability and improve long-term conservation of the forest ecosystem within the Jawadhi Hills region.


District Forest officer
Tirupattur Division
Tirupattur.


15/05/2026 
15/05/26

Kallarapatti RF and Beat



Gps Point

N19.581464

E70.758678

Surveyed Area : 800 ha

COUNTERSIGNED

Surveyed area for planting

Distric Forest Officer

Tirupattur Division

Alangayam Range,
Alangayam, T.P.D.