

TAMIL NADU FOREST DEPARTMENT

By RPA D

From
K.Geethanjali, I.F.S.,
Wildlife Warden,
Guindy Children's Park,
Chennai - 22

To
The Divisional Engineer,
Highway Department,
Construction & Maintenance Division,
Thiruvallur.

Ref.No.2141/2014/D1 dated 10.08.2016.

2773
2016

Sir,

Sub : Forest (Conservation) Act, 1980 – Proposal for Diversion of 1.11 Ha in Pulicat Birds Sanctuary of Wildlife Division, Chennai for Construction of high level bridge km 0/4 of Chennai – Pulicat road to Pasiyavaram road – request the details of cost towards CA and NPV amoun – regarding.

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1. Govenment of India, Ministry of Environment, Forest & Climate Change Letter No.F-No.TNB 008/2016 – CHN/1538
Dated.01.08.2016

2.Divisional Engineer, Highway Department (C&M) Thiruvallur
Letter No.5737/2007-08/JDO-3 dated 05.08.2016.

It is submitted to inform that Stage – I of Forest Conservation Act, 1980 clearance has been issued by Government of India, Ministry of Environment, Forest & Climate Change Regional Office (South Eastern Zone) Chennai - 34 on 01.08.2016 and the copy of the same is enclosed herewith for further follow up action at your end.

The user agency is requested to pay Rs.23,55,000/- (Rupees twenty three lakhs fifty five thousand only) as cost of Compensatory Afforestation (C.A) and Rs.24,30,900/- (Rupees twenty four lakhs thirty thousand and nine hundred only) as Net Present Value by generating challan through Forest Clearance Website of Ministry of Environment, Forests & Climate Change at the earliest.

The user agency is requested to furnish necessary undertakings for the Stage – I approval granted by Government of India. The conditions stipulated by the Principal Chief Conservator of Forest & Chief Wildlife Warden in letter No.WL5/7697/2016 dated.09.03.2016 is enclosed herewith and the user agency is requested to comply with the conditions stipulated and furnish due undertakings for the same. The Divisional Engineer, Highways Department (C&M) Division, is also requested to send the Survey map of Compensatory Afforestation area indicating Survey No.Patta in hard copy to this office.

The user agency is requested to furnish all necessary compliance reports at the earliest to this office for further action in this matter.

Encl: As stated above

Yours faithfully,
Sd/K.Geethanjali
Wildlife Warden,
Chennai

Copy to Submitted to Principal Chief Conservator of forest (FCA)
Panagal Building, Saidapet, Chennai – 15

Copy to Submitted to Additional Principal Chief conservator of forest
& Director, Arignar Anna Zoological Park, Vandalur, Chennai - 48

//true copy/by order//

Superintendent

10/8/16

10/8/16

Divisional Engineer Highways Department
Compensatory afforestation (C.A) amount calculation.

1. Area diverted in Pulicat Birds Sanctuary = 1.11 Ha.

Compensatory Area - $(1.11 \times 2 = 2.22 \text{ Ha.})$ = 2.22 Ha


Raising Nursery and Plantation (1000 seeding /
Ha) for cost of Rs.240000/Ha = (2.22×240000) = Rs. 532800/-
2. Maintenance cost for 10 years amount of = Rs.274272/-
3. Barbed wire fencing using R.C.C. Readymade
pillars .as per estimate cost Rs.135000/ 100
R.m = $(850 \text{ RM @ Rs.1350/1RM}) = \text{Rs.1147500/-}$ = Rs.1147500/-
4. Providing Water harvesting structure = Rs.400000/-

TOTAL = Rs.23,54,572/- ✓
(or) = Rs.23,55,000/- ✓

Yours faithfully,
Sd/K.Geethanjali
Wildlife Warden,
Chennai

//ture copy/by order//


Superintendent

 10/8/14

CALCULATION SHEET OF COMPENSATORY AFFORESTATION COST

Sl. No	Name of the Work	Quantity	Rate	Per	Amount
1	2	3	4	5	6
1	Raising Compensatory Afforestation Plantation (1000 Nos per ha) - 2.22 Ha	2220 Nos	240	1 No	532800
2	Cost of Ist year maintenance - 2.22 Ha . -	2220 Nos	25.3	1 No	56166
3	Cost of IInd year maintenance - 2.22 Ha	2220 Nos	8.91	1 No	19780
4	Cost of IIIrd year maintenance (IInd year maintenance cost + 5% enhancement rate)	2220 Nos	9.36	1 No	20769
5	Cost of IVth year maintenance (IIIrd year maintenance cost + 5% enhancement rate)	2220 Nos	9.83	1 No	21808
6	Cost of Vth year maintenance (IVnd year maintenance cost + 5% enhancement rate)	2220 Nos	10.32	1 No	22898
7	Cost of VIth year maintenance (IVth year maintenance cost + 5% enhancement rate)	2220 Nos	10.84	1 No	24043
8	Cost of VIIth year maintenance (VI year maintenance cost + 5% enhancement rate)	2220 Nos	11.38	1 No	25245
9	Cost of VIIIth year maintenance (VII year maintenance cost + 5% enhancement rate)	2220 Nos	11.95	1 No	26507
10	Cost of IXth year maintenance (VIIIth year maintenance cost + 5% enhancement rate)	2220 Nos	12.55	1 No	27832
11	Cost of Xth year maintenance (IX year maintenance cost + 5% enhancement rate)	2220 Nos	13.18	1 No	29224
12	Providing Barbed wire fencing using RCC Readymade pillars (Total CA Land area 2.22 Ha or 850.00 RM)	850.00 RM	1350	1 RM	1147500
13	Providing water harvesting structure	1 No	400000	1 No	400000
13	Contingencies	LS			428
TOTAL					2355000

(Rupees twenty three lakhs fifty five thousand only)

WILD LIFE WARDEN
CHENNAI

MODEL ESTIMATE FOR RAISING AND PLANTING 1000 NOS OF TALLER SEEDLING (30 X 45) FOR COMPENSATORY PLANTATION IN WILDLIFE DIVISION, CHENNAI-22

Sl. No	Name of the Work	FSR/SSR Item No.	Quantity	Rate	Per	Amount
1	2	3	4	5	6	7
PART - 1 : NURSERY OPERATION						
1	Preparation of Nursery site	- 4.1	20m2	775.01	200m2	77.5
2	Cost of Seeds	Local Rate	1 kg	200	1 kg	200
3	Cost of 13 X 25cm X 250g polythene Bages	Local Rate	1000 Nos	819	1000 Nos	819
4	Formation of mother beds of size 10mx1mx0.80m@1 bed/5000 Nos	FSR 86-87	1 Bed	27.5	18Bed	27.5
5	Watering Germination beds twice daily with rose can for 15 days	4.5.1	1 Bed/15 days	262.61	10 Bed/day	393.92
6	Watering Germination beds twice daily with rose can for 30 days	4.5.2	1 Bed/30 days	131.3	10 Bed/day	393.92
7	Cost of Sand @ 0.34m3 / 1000 nos	NHAJ model estimate	0.34m3	500	1m3	170
8	Collection and transport of Silt @ 0.34m2 / 1000nos	NHAJ model estimate	0.34m3	400	1m3	136
9	Cost and transport of Farm yard Mannure @ 0.34m3 / 1000 nos	NHAJ model estimate	0.34m3	176	1m3	59.84
10	Preparation of Soil mixture by mixing sand,sit and Farm yard mannure in the ratio 1:1:1 and filling in polythene bages of size 13x25cmx250g and arranging in beds etc...	4.6	1000 Nos	1434.72	1000 Nos	1434.72
11	Watering twice daily - 15 days	4.10.4	1000 Nos/15 days	73.66	1000 / days	1104.9
12	Watering once daily - 30 days	4.11.4	1000 Nos/30 days	36.83	1000 / days	1104.9
13	Watering the alternate days-15 days	4.11.4	1000 Nos/15 days	36.83	1000 / days	552.45
14	Shifting and grading - 2 shift	4.15.4	1000 Nos/2 shift	163.33	1000 / shift	326.66
Sub Total (A)						6801.31
15	Add 10% for culling damage etc..	10% of A				680.13
Total for PART-1						7481.44

PART - II Nursery operation - Bigger size bags						
16	Clearing Nursery site for forming beds @ 1 bed / 300 nos	4.1	66.6m2	775.01	200m2	258.07
17	Cost of polythene bages of size 30x45cmx600g-HDPE/empty cement bags 1.DPE	Local Rate	1000 Nos	6400	1000 Nos	6400
18	Cost of Palar river sand @ 3.234m3/1000 Nos	Local Rate	3.234m3	500	1m3	1617
19	Collection and transport of silt @ 3.234m3/1000 Nos	Local Rate	3.234m3	400	1m3	1293.6
20	Cost and Transport of Farm yard mannure @ 2.234m3/1000 Nos	Local Rate	3.234m3	176	1m3	569.18
21	Preparation of Soil mixture by mixing sand,sit and Farm yard mannure in the ratio 1:1:1 and filling in polythene bages of size 30x45cmx600g and arranging in beds etc...	4.6.7	1000 Nos	9149.54	1000 Nos	9149.54
22	Cost of VAM 40gms @18/kg vamricastings 100gms @ 10/kg Azozphyrillum 15gms @ 27/kg Phospobacteria 15gms @27/kg plant HDPE/1.DPE	As per research wing rate	1000 Nos	253	1 Each	2530
23	Labour cost for transporting 13x25cm bags seeding in to 30x45cmx600g bags/HDPE	Collector Rate	10 maz/ 1000 nos	320	1 Mazdoor	3200
24	Cost of Vertical stick of size 2.5mt Ht.	Local Rate	1000 Nos	8	1 Each	8000
25	Cost of Horizontal stick	Local Rate	500 m	1	1 metre	500
26	Tying plants to the vertical stick once in a month	Local Rate	1000 Nos/4 times	0.25		1000
27	Pruning side to the vertical stick once in a month	Local Rate	1000 Nos/4 times	1	1 Each/time	4000
28	Watering 30x45cm bags twice daily	4.10.7	1000 Nos/30 days	179.34	1000/day	5380.2
29	Watering 30x45cm bags twice daily	4.11.7	1000 Nos/230 days	89.67	1000/day	20624.1
30	Shifting the container once in of 1 days First shift after 45 days from the date transporting-10 shifts	4.15.7	1000 Nos / 10 shift	861.47	1000/day/ shift	8614.7
31	Wages of once mazdoor for protection	FSR mandays	0.05 mazdoor/ 300 days	320	1 day	4800
32	Cost of DAP 0.5% TO 1% DAP solution 10 times 10gm/litre.	Local Rate	25 kgs	25	1 kg	625
33	Pesticides	L.S				1100
Sub Total (B)						79661.39

	5 % for culling damage etc...		5% of (B)		3983.07	
	Add 10% for casualty replacement in the plaanting year		10% OF (B)		7966.14	
	TOATL FOR PART-II				91610.6	
	GRAND TOTAL FOR PART- I & II (7481.44 + 91610.60)				99092.04	
	Contigencies for unforeseen charges				907.96	
	GRAND TOTAL				100000	
	PART - III : PLANTING OPERATION AND PROTECTION					
35	Transporting sapling (transported to the radius of 40 kms)	As per quotation	1100 Nos	8	1 Each	8800
36	Loading and unloading the seedings	5.11.7	1100 Nos	1053.62	1000 Nos	1158.98
37	Transport by headload up to 1.00 km	5.13.3	1100 Nos	22417.5	1000 Nos	24659.25
38	Distribution of sapling upto 100m	5.15.1	550 Nos	3202.5	1000 Nos	1761.37
(A)						
(B)	Upto 200m	5.15.2	550 Nos	5604.38	1000 Nos	3082.4
39	Digging of pits in hard gravelly soil (i) 60cm3	5.8.1	1000 Nos	2965.52	100 Nos	29655.2
40	Cost and transport of farmyard mannure @ 0.054m3 for 60cm3 pit (1/4 by volume)	4.6.10	54m3	176	1 m3	9504
41	Application charges for farm yard mannure for 60 cm3 pit@ 1maz/30 Nos	collector rate	34mazdoor / 1000 Nos	320	1 mazddor	10880
42	Biofertilizer including cost of application	Local Rate	1000 Nos	5	1 Plant	5000
43	Planting saplings 60 cm3 pit	5.22	1000 Nos	547.63	100 Nos	5476.3
44	Provision of stick for saplings to the planted seedings	Local Rate	1000 Nos	10	1 Each	10000
45	Replacement of casusities 1/2 pitting rate of full planting rate (Rain season rate) 60 cm3 pits	chennai circle rate	100 nos	18.9	1 Each	1890
46	Watering and soil working	5.24	1000 Nos	393.91	100 Nos	3939.1
47	Forming catch water drains for each plant	5.26	1000 Nos	2190.51	100 Nos	21905.1
	TOTAL FOR PART-III					137711.7
	GRAND TOTAL FOR PART- I ,II & III					237711.7
	Contigencies for unforeseen charges					2288.3
	GRAND TOTAL					240000
	i.e. Rs.240.00 / No					

WILD LIFE WARDEN
CHENNAI

ESTIMATE FOR II YEAR MAINTENCE OF COMPENSATORY PLANTATIONS						
Sl. No	Name of the Work	FSR/SSR Item No.	Quantity	Rate	Per	Amount
1		2	3	4	5	6
1	Weeding and soil working	5.24	1000/2 times	393.91	100 Nos	7878.2
2	Contigencies for cost of DAP etc..	L.S				221.8
	SUB TOTAL					8100
	Add 10% enhancement rate for IInd year maintenance					810
	GRAND TOTAL					8910
	i.e.Rs.8.91 / No					

WILDLIFE WARDEN
CHENNAI

11/7/16

ESTIMATE FOR 1 YEAR MAINTENANCE OF COMPENSATORY PLANTATIONS REPLACEMENT OF CASUALTIES

10%

Sl. No	Name of the Work	FSR/SSR Item No.	Quantity	Rate	Per	Amount
1	2	3	4	5	6	7
1	Cost of taller plants	As per model estimate	100 Nos	90.5	1 Each	9050
2	Transporting seedlings (upto 40 km)	As per Quotation	100 Nos	8	1 Each	800
3	Loading and unloading the seedlings	5.11.7	100 Nos	1053.62	1000 Nos	105.36
4	Transported of seeding by head load upto 1.00km	5.13.3	100 Nos	19535.25	1000 Nos	1953.53
5	Distribution of sapling upto 200m (i)	5.15.2	50 Nos	5604.38	1000 Nos	280.22
	(ii) upto 500m	5.15.2	50 Nos	13130.25	1000 Nos	656.51
6	Replacement of casusities 50% pitting	5.23	100 Nos	18.9	1 Each	1890
7	Weeding and soil working	5.24	1000/2 times	393.91	100 Nos	7878.2
8	Contigencies for cost of DAP etc..	L.S				386.18
	SUB TOTAL					23000
	Add 10% enhancement rate for 1st year maintenance					2300
	GRAND TOTAL					25300
	i.e.Rs.25.30 / No					

WILD LIFE WARDEN
CHENNAI

[Signature] 11/7/16

[Signature] 11/7/16

ESTIMATE FOR BARBED WIRE FENCHING USING NOT READYMADE PILLERS.FOR 100RM

Sl. No	Name of the Work	FSR/SSR Item No.	Quantity	Rate	Per	Amount
1	2	3	4	5	6	7
1	Cost of RCC Pillers (size 0.15x0.15x2.10m hight)	Local Rate	48 Nos	250	Each	12000
2	Digging 45cm3 pits	5.5	48 Nos	1239.37	100 Nos	595
3	PCC 1:5:10 using 40mm HBG Jelly	SSR	3.9 cum	2613	cum	10191
4	Planting the stones	Research rate	48 Nos	5	Each	240
5	Streching & tying the barbed wire	collector rate	7500 RM	320	100 Rm	24000
6	Cost & supply of Barbed wire	SSR	1250 kg	69.3	kg	86625
7	Cost & supply of binding wire (Galvanized)	SSR	15 kg	45.6	kg	684
8	Contingencies such as white washing & numbering the pillers coast of paint brush,etc..	L.S				665
	SUB TOTAL					135000
	i.e.Rs.1350 / 1 RM					

WILD LIFE WARDEN
CHENNAI

Divisional Engineer Highways Department
Net Present Value (NPV) amount calculation.

The Hon'ble supreme court order dated.28.03.2008 in IA No.826 in 566 with related IAS in W.P. (C).202/1995 – In respect of forest land filling with in sanctuaries, the amount may be fixed of 5 times the Net Present Value (NPV) payable for the adjoining forest area. Hence in order of Hon'ble supreme court, the user agency pay amount of Net Present Value (NPV) i.e. 1.11 hectare X Rs.4,38,000 / hector X 5 times = total Rs.24,30,900/-

Yours faithfully,
Sd/K.Geethanjali
Wildlife Warden,
Chennai

//ture copy/by order//

Superintendent
10/8/16

CSO
10/8/16

Ref. No. WL5/7697/2016

O/o. the Principal Chief Conservator of Forests,
Panagal Maaligai, Sz. Japet,
Chennai - 15.
Dated: 09-03-2016

Sub:

Forests and Wildlife- **Construction of High Level bridge at Km 0/4 Chennai - Pulicat Road to Pasiyavaram road** including forming approaches, involves use of 1.11 ha of Forest land falls within Pulicat Birds Sanctuary - IA NO. 3889-3890 of 2015 in Hon'ble Supreme Court of India - Regarding.

Ref:

- 1) Orders issued by Hon'ble Supreme Court of India in IA No. 3912-3913/2015 and 3914-3915/2015 dated 05-10-2015.
- 2) Minutes of the 32nd meeting of Standing Committee of National Board for Wildlife Ref. No. 6-209.2014 WL-I (32nd meeting) dated 20-02-2015 (agenda No. 4.2 (22)).
- 3) The Principal Chief Conservator of Forests (HOD), Chennai Ref. No. TS3/31240/2015 dated 18-11-2015

* * * *

With reference to the letter 3rd cited and in light of the orders issued by the Hon'ble Supreme Court of India on 05-10-2015 in connection with the **IA petition No. 3889-3890 of 2015 filed as above**, and second reference cited (Minutes of the 32nd meeting of **Standing Committee** of National Board for Wildlife) the ~~Additional Principal Chief Conservator of Forests and Director,~~ Arignar Anna Zoological Park, Vandalur, **Chennai** is informed that following terms and conditions shall be stipulated on commencement of the work after obtaining clearance under Forest Conservation Act, 1980 from Principal Chief Conservator of Forests (Head of Department).

Terms and conditions:-

- No damages should be caused to Flora and Fauna. ✓
- No breaking of fresh forest land other than permitted. ✓
- No labour camps shall be established within Protected Areas. ✓
- During construction works, the underlying principle should be that work must be carried on in a speedy manner, with minimal disturbance to wildlife and with adherence to all rules and regulations that govern wildlife and PAs.
- No collection of any material like sand, gravel etc. from the PA. All materials for construction, road maintenance etc. should be brought from outside.

➤ Work shall be carried out only between 07:00 AM to 05:00 PM.

➤ Mixing of hot-mix plant (coal tar mixing) with central unit should be located outside Protected Area. ✓

➤ Any materials required for maintenance or waste should not be dumped inside the Protected Area.

➤ The detailed project report should be got approved by the Additional Principal Chief Conservator of Forests and Director, Arignar Anna Zoological Park, Vandalur, Chennai.

➤ The Highways authority shall submit an undertaking stating that no disturbance will be caused to the wildlife during project implementation.

➤ Any other site specific conditions stipulated by Additional Principal Chief Conservator of Forests and Director, Arignar Anna Zoological Park, Vandalur, Chennai / Wildlife Warden, Chennai may be included in the interest of wildlife conservation and protection.

Sd/- V.K. Melkani
Principal Chief Conservator of Forests
and Chief Wildlife Warden

To
The Additional Principal Chief Conservator of Forests and Director,
Arignar Anna Zoological Park, Vandalur,
Chennai - 48.

Copy to the Principal Chief Conservator of Forests (Head of Department),
Chennai for favour of information.

Copy to the Additional Principal Chief Conservator of Forests (FCA), O/o.
Principal Chief Conservator of Forests for information and necessary action.

Copy to the Wildlife Warden, Chennai for information and necessary action.

Copy to the Divisional Engineer, Highways Department (C&M), Tiruvallur
Division, Tiruvallur.

/True Copy / by Order/

9/3/16
Senior Draughting Officer