

## **SCHEME FOR COMPENSATORY PLANTATION**

For raising of 100 plants over 0.0625 Ha. in Block Model (AR) in front of Bharatpur Nature Awareness Centre inside Bharatpur RF of Chandaka-Dampara Wildlife Sanctuary

In lieu of Diversion of 0.247ha. (0.612 Ac.) of Forest Land allotted to Mayfair Hotels & Resorts Limited over Plot No.282(Pt) & 284(Pt) of Khata no.1428 in mouza Jayadev Vihar in Bhubaneswar Tahasil under Khordha District.

**Project Cost: - 1,65,480.00**

**(Rupees One Lakh Sixty-Five Thousand Four Hundred Eighty) only**

Divisional Forest Officer  
Chandaka Wildlife Division  
Bhubaneswar

# **COMPENSATORY AFFORESTATION**

## **Introduction: -**

As an environmental amelioration measure to minimise the adverse impact due to climate change & global warming, it is proposed to have plantation covering 0.0625 Ha. in Block Model (AR) in front of Nature Awareness Centre, Bharatpur inside Bharatpur RF of Chandaka-Dampara Wildlife Sanctuary. As such 100 plants are to be planted. Total cost of the Project for implementation of this intervention is Rs.1,65,480/- (Rupees One Lakh Sixty-Five Thousand Four Hundred Eighty only) having on approved Govt norm of the Principal Chief Conservator of Forest & HoFF, Odisha, Bhubaneswar.

## **Choice of Species: -**

The Choice of Species for Plantation around water body (Spacing 4m x 4m)

i.	Bara	:	Ficus benghalensis
ii.	Oswatha	:	Ficus religiosa
iii.	Jamun	:	Syzygium cumini
iv.	Rai	:	Dellenia pentagyna
v.	Kumbhi	:	Careya arborea
vi.	Kangara	:	Xylia xylocarpa
vii.	Panas	:	Artocarpus heterophyllus
viii.	Mango	:	Magnifera indica
ix.	Tentra	:	Albizzia procera

**Fencing: -** GI Chain link mess fencing is suggested around the plantations to reduce the biotic interference in the initial stage & to achieve better survival of the plantation. The estimated cost per 1 RKM is at Annexure-II. The total periphery of planting site is 0.12 RKM where it is suggested for fencing.



Year	Block Plantation		GI Mess wire Fencing. Over 0.12 RKM		Total Cost in Rs.
	Norm per Hectare in Rs.	Cost for 0.0625 ha. in Rs.		For 0.12km in l Rs.	
0 <sup>th</sup> Yr	47023.20	2938.95	794093	95291.16	98230.11
1 <sup>st</sup> Yr	230123.00	14382.6875	79409	9529.08	23911.7675
2 <sup>nd</sup> Yr	1,22,278.00	7642.375	39704	4764.48	12406.855
3 <sup>rd</sup> Yr	12465.00	779.0625			779.0625
4 <sup>th</sup> Yr	5,878.00	367.375			367.375
5 <sup>th</sup> Yr	5,878.00	367.375			367.375
6 <sup>th</sup> Yr	5,878.00	367.375			367.375
7 <sup>th</sup> Yr	5,878.00	367.375			367.375
8 <sup>th</sup> Yr	5,878.00	367.375			367.375
9 <sup>th</sup> yr	5,878.00	367.375			367.375
10 <sup>th</sup> Yr	5,878.00	367.375			367.375
Total	453035.20	28314.7		109584.72	137899.42
Cost of compensatory plantation of 100 plants					137900.00
Add 20% cost of escalation					27580.00
Total					165480.00
(Rupees One Lakh Sixty Five Thousand Four Hundred Eighty ) only					

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Annexure-I					
Cost Norm for Block Plantation.					
Spacing 2.5m x 2.5m; Number of plants @1600 per Hectare.					
COST NORM FOR BLOCK PLANTATION @ 1600 PLANTS PER HECTARE (18 MONTHS OLD SEEDLING)					
Wage rate: Rs.311/Day.					
Item of Works	Period of excution	Mandays	Labour Cost @ Rs.311.00	Material cost	Total in Rs.
2	3	4	5	6	7
<b>Preparatory Operation (0<sup>th</sup> Year)</b>					
1 Survey, Demarcation and Pillar Posting, GPS Reading with mapping	Nov/Dec	2	622.00	0.00	622.00
2 Site Preparation	Nov/Dec	12	3732.00	0.00	3732.00
3 Alignment & Stacking of Pits	Jan/Feb	2	622.00	0.00	622.00
4 Excavation of pits- 45cm x 45 cm x 45 cm in hard soil with vertical cut edges to make an uniform cube & heaping the excavated soil out side the pits	Feb/Mar	128	39808.00	0.00	39808.00
<b>Total</b>		<b>144</b>	<b>44784.00</b>	<b>0.00</b>	<b>44784.00</b>
5 Monitoring & Supervision charge 5% of the total cost					<b>2239.2</b>
<b>Grand Total</b>		<b>144</b>	<b>44784.00</b>	<b>0.00</b>	<b>47023.20</b>
<b>Planting Operation (1<sup>st</sup> Year)</b>					
6 Procurement Cost (18 month Old Seedling) @Rs.34.84/-for 1760 seedlings (1600+160) from Central Nursery of Chandaka Wildlife Division	July	0	0.00	61318.40	61318.40
7 Carriage and planting, casualty replacement & application of Insecticides, manure etc.	July/Aug	21	6531.00	0.00	6531.00
8 Cost of Insecticide & Bio-fertilizer		0	0.00	3232.00	3232.00
9 1st Weeding (Complete weeding)	Aug/Sept	7	2177.00	0.00	2177.00
10 Application of Bio-fertilizer	Aug/Sept	5	1555.00	0.00	1555.00
1 2nd Weeding (Complete weeding)	Sept/Oct	5	1555.00	0.00	1555.00
2 Soil Working (50 cms radius around plants)	Sept/Oct	7	2177.00	0.00	2177.00
3 Soil conservation measures in form of Staggered trenches of dimension 2 m x 0.5 m x 0.5 m @30nos per ha.	Sept/Oct	10	3110.00	0.00	3110.00
4 Fire line tracing & inspection path	Feb/Mar	3	933.00	0.00	933.00
5 Watch and ward	Aug-Mar	7	2177.00	0.00	2177.00
6 Watering of Plants	Sept-Mar= 7 month	@Rs12.00p er Plant per month	134400	0.00	134400.00
<b>Total</b>		<b>65</b>	<b>154615.00</b>	<b>64550.40</b>	<b>219165.40</b>
7 Monitoring & Supervision charge 5% of the total cost			<b>0</b>	<b>0</b>	<b>10958.27</b>



<b>Grand Total</b>		<b>65</b>	<b>154615.00</b>	<b>64550.40</b>	<b>230123.67</b>
<b>Maintenance Operation (2<sup>nd</sup> Year)</b>					
8 Casualty Replacement including cost of seeding, carriage(10%)	July/Aug	4	1244.00	5574.40	6818.40
9 Complete weeding	Sept/Oct	6	1866.00	0.00	1866.00
10 Cost of Bio-fertilizer & Insecticide for 160 Plants			0.00	2752.00	2752.00
11 Application of Bio-fertilizer & Insecticide	Sept/Oct	4	1244.00	0.00	1244.00
12 Soil Working (50 cms radius around plants)	Oct/Nov	7	2177.00	0.00	2177.00
13 Fire line Tracing (2 mtr wide fireline over 400 mtr long)	Feb/March	3	933.00	0.00	933.00
14 Watch and ward (Whole year)	April-March	15	4665.00	0.00	4665.00
15 Watering of Plants	April- June & Sept- March =10 month	@Rs6/- per Plant per month	96000.00	0.00	96000.00
<b>Total</b>		<b>59</b>	<b>108129.00</b>	<b>8326.40</b>	<b>116455.40</b>
16 Monitoring & Supervision charge 5% of the total cost		<b>0</b>	<b>0</b>	<b>0</b>	<b>5822.77</b>
<b>Grand Total</b>		<b>59</b>	<b>108129.00</b>	<b>8326.40</b>	<b>122278.17</b>
<b>Maintenance Operation (3<sup>rd</sup> Year)</b>					
17 Complete weeding and application of Bio-	Aug/Sept	7	2177.00	0.00	2177.00
18 Cost of Bio-fertilizer		0	0.00	1920.00	1920.00
19 Soil Working (50 cms radius around plants)	Oct/Nov	7	2177.00	0.00	2177.00
20 Fireline Tracing (2 mtr wide fireline over 400 mtr long) & cultural operation	Feb/March	3	933.00	0.00	933.00
21 Watch and ward (Whole year)	April-March	15	4665.00	0.00	4665.00
<b>Total of 3<sup>rd</sup> Year:-</b>		<b>32</b>	<b>9952.00</b>	<b>1920.00</b>	<b>11872.00</b>
22 Monitoring & Supervision charge 5% of the total cost		<b>0</b>	<b>0</b>	<b>0</b>	<b>593.6</b>
<b>Grand Total</b>		<b>32</b>	<b>9952.00</b>	<b>1920.00</b>	<b>12465.60</b>
<b>Maintenance Operation (4<sup>th</sup> Year)</b>					
23 Fire line Tracing (2 mtr wide fireline over 400 mtr long) & cultural operation	Feb/March	3	933.00	0	933.00
24 Watch and ward (Whole year)	April-March	15	4665.00	0	4665.00
<b>Total of 4<sup>th</sup> Year:-</b>		<b>18</b>	<b>5598.00</b>	<b>0</b>	<b>5598.00</b>
25 Monitoring & Supervision charge 5% of the total cost		<b>0</b>	<b>0</b>	<b>0</b>	<b>279.9</b>
<b>Grand Total</b>		<b>18</b>	<b>5598.00</b>	<b>0.00</b>	<b>5877.90</b>
<b>Maintenance Operation (5<sup>th</sup> Year)</b>					
26 Fireline Tracing (2 mtr wide fireline over 400 mtr long) & cultural operation	Feb/March	3	933.00	0	933.00
27 Watch and ward (Whole year)	April-March	15	4665.00	0	4665.00
<b>Total of 5<sup>th</sup> Year:-</b>		<b>18</b>	<b>5598.00</b>	<b>0</b>	<b>5598.00</b>



3	Monitoring & Supervision charge 5% of the total cost		0	0	0	279.9
	<b>Grand Total</b>		<b>18</b>	<b>5598.00</b>	<b>0.00</b>	<b>5877.90</b>
<b>Maintenance Operation (6<sup>th</sup> Year)</b>						
9	Fireline Tracing (2 mtr wide fireline over 400 mtr long) & cultural operation	Feb/March	3	933.00	0	933.00
10	Watch and ward (Whole year)	April-March	15	4665.00	0	4665.00
	<b>Total of 6<sup>th</sup> Year:-</b>		<b>18</b>	<b>5598.00</b>	<b>0</b>	<b>5598.00</b>
1	Monitoring & Supervision charge 5% of the total cost		0	0	0	279.9
	<b>Grand Total</b>		<b>18</b>	<b>5598.00</b>	<b>0.00</b>	<b>5877.90</b>
<b>Maintenance Operation (7<sup>th</sup> Year)</b>						
2	Fireline Tracing (2 mtr wide fireline over 400 mtr long) & cultural operation	Feb/March	3	933.00	0	933.00
3	Watch and ward (Whole year)	April-March	15	4665.00	0	4665.00
	<b>Total of 7<sup>th</sup> Year:-</b>		<b>18</b>	<b>5598.00</b>	<b>0</b>	<b>5598.00</b>
4	Monitoring & Supervision charge 5% of the total cost		0	0	0	279.9
	<b>Grand Total</b>		<b>18</b>	<b>5598.00</b>	<b>0.00</b>	<b>5877.90</b>
<b>Maintenance Operation (8<sup>th</sup> Year)</b>						
5	Fireline Tracing (2 mtr wide fireline over 400 mtr long) & cultural operation	Feb/March	3	933.00	0	933.00
6	Watch and ward (Whole year)	April-March	15	4665.00	0	4665.00
	<b>47</b>		<b>18</b>	<b>5598.00</b>	<b>0</b>	<b>5598.00</b>
8	Monitoring & Supervision charge 5% of the total cost		0	0	0	279.9
	<b>Grand Total</b>		<b>18</b>	<b>5598.00</b>	<b>0.00</b>	<b>5877.90</b>
<b>Maintenance Operation (9<sup>th</sup> Year)</b>						
9	Fireline Tracing (2 mtr wide fireline over 400 mtr long) & cultural operation	Feb/March	3	933.00	0	933.00
10	Watch and ward (Whole year)	April-March	15	4665.00	0	4665.00
	<b>Total of 9<sup>th</sup> Year:-</b>		<b>18</b>	<b>5598.00</b>	<b>0</b>	<b>5598.00</b>
1	Monitoring & Supervision charge 5% of the total cost		0	0	0	279.9
	<b>Grand Total</b>		<b>18</b>	<b>5598.00</b>	<b>0.00</b>	<b>5877.90</b>
<b>Maintenance Operation (10<sup>th</sup> Year)</b>						
2	Fireline Tracing (2 mtr wide fireline over 400 mtr long) & cultural operation	Feb/March	3	933.00	0	933.00
3	Watch and ward (Whole year)	April-March	15	4665.00	0	4665.00
	<b>Total of 10<sup>th</sup> Year:-</b>		<b>18</b>	<b>5598.00</b>	<b>0</b>	<b>5598.00</b>
4	Monitoring & Supervision charge 5% of the total cost		0	0	0	279.9
	<b>Grand Total</b>		<b>18</b>	<b>5598.00</b>	<b>0.00</b>	<b>5877.90</b>

ABSTRACT					
Year	No of Man Days	Labour Cost	Material Cost	Monitoring & Supervision charge 5% of the total cost	Total Cost
1 0th Year	144	44784.00	0.00	2239.2	47023.20
2 1 <sup>st</sup> Year	65	154615.00	64550.40	10958.27	230123.67
3 2nd Year	59	108129.00	8326.40	5822.77	122278.17
4 3rd Year	32	9952.00	1920.00	593.6	12465.60
5 4th Year	18	5598.00	0.00	279.9	5877.90
6 5th Year	18	5598.00	0.00	279.9	5877.90
7 6th Year	18	5598.00	0.00	279.9	5877.90
8 7th Year	18	5598.00	0.00	279.9	5877.90
9 8th Year	18	5598.00	0.00	279.9	5877.90
10 9th Year	18	5598.00	0.00	279.9	5877.90
11 10th Year	18	5598.00	0.00	279.9	5877.90
Total	426	356666.00	74796.80	21573.14	453035.94

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Regional Chief Conservator of Forests  
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**Annexure-II**

**DETAILED ESTIMATE FOR GI CHAIN LINK FENCING WITH R.C.C. POST**

**Length = 1.0 RKM. wage rate – Rs. 311.00**

Sl No.	Description	Rate in Rs	Quantity	Amount
1	Digging of earth for creation of Pits for fixing of R.C.C. Post at 2.50 mtr.	184.11	53.46	9842.5206
	Interval and two support post at 50.0 meter interval.			
	440 x 0.60m x 0.45m x 0.45m = 53.46 cum			
2	Cost of R.C.C. post With 4 nos. 6mm M.S. Rod frame and ring at 30 cm interval	600	440	264000
3	Carriage of 440 nos. R.C.C. post to work site	50	440	22000
4	Fixing of R.C.C. post with earth and metal	50	440	22000
5	Cost of G.I. Chain link made from hot deep 70 gsm 3.15 mm G.I. wire mesh size 50mm x 50 mm for 1000mtr. x 1.5 mtr=1500 sq meter	300.9	1500	451350
6	Fixing of G.I. Chain link as stated above	311	30	9330
	<b>Sub Total</b>			<b>778522.5206</b>
			<b>Labour Cess 1%</b>	<b>7785.225206</b>
			<b>Contingency 1%</b>	<b>7785.225206</b>
		<b>Total 1<sup>st</sup> year</b>		<b>794092.971</b>
		<b>2<sup>nd</sup> year maintenance</b>	<b>@10%</b>	<b>79409.2971</b>
		<b>3<sup>rd</sup> year maintenance</b>	<b>@5%</b>	<b>39704.64855</b>
		<b>G. Total</b>		<b>913206.9167</b>
				<b>or</b>
				<b>913207.00</b>

**(Rupees Nine Lakh Thirteen Thousand Two Hundred Seven ) only.**

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*Checked  
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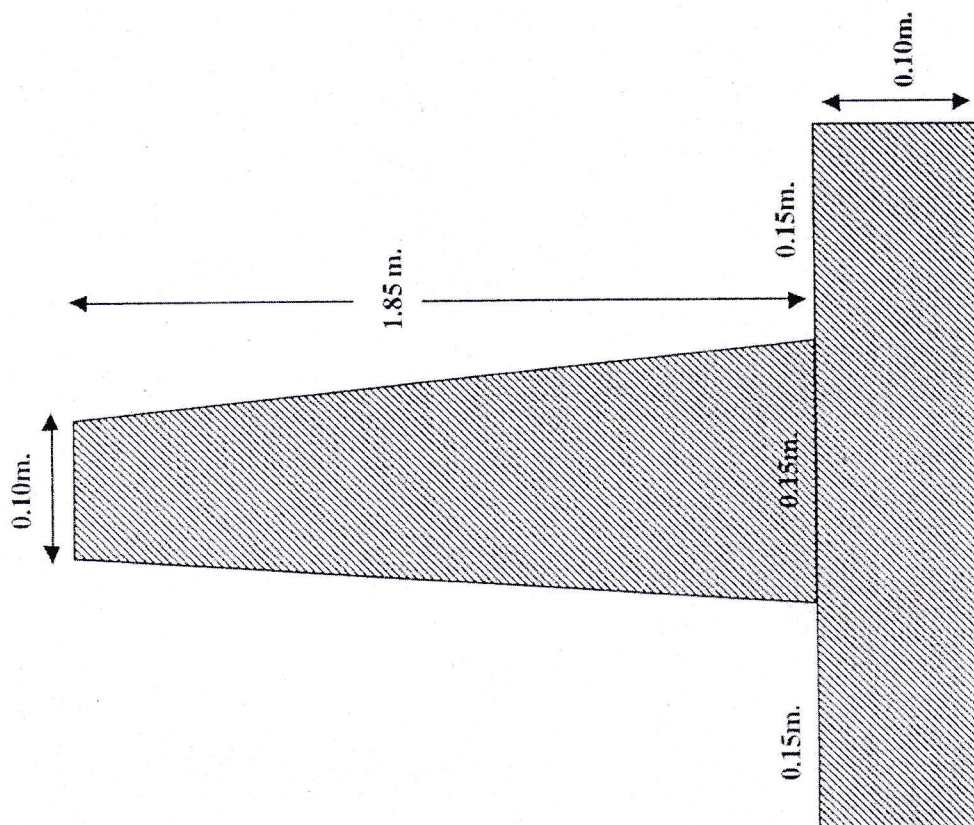
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## Plan for the RCC Fencing Post

(Length = 1.95m., Top Width = 0.10m., Bottom Width = 0.15m., Thickness = 0.10m.)



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Front View of G.I. Chain Link Fencing with R.C.C. post

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