

Plantation Model For Standard Plantation under Compensatory Afforestation

Plants Per Hectare : 1000 Nos.

Sr. No.	Name of Work	Unit	Qty.	Unit Cost (in Rs.)	Amount
	Nursery				
	Nursery cost of raising plants	1100	1100	22.45	24689.50
	A Soil Work				
1	Site / Jungle Clearance (25%)	Ha.	0.5	6022.60	3011.30
2	Alignment & Dagbaling	Ha.	1	1104.20	1104.20
3	Earth works in Digging of Pits 1000 x 0.5 m x 0.5 m x 0.4 m	1 M3	100	113.75	11375.40
5	Kana Stubbing 25%	Ha.	0.25	30112.80	7528.20
	B Plantation Work				
1	Refilling of Pits 1000x0.5mx0.5mx0.3	100 cum	75	3082.40	2311.80
2	Loading & Unloading of Plants (1000+10% Wastage=1100)	100 No.	1100	617.16	6788.76
3	Carriage of Plants (1000+10% wastage =1100 avg. distance upto 10 km.)	100 No.	1100	220.83	2429.13
4	i) Carriage from site to site	100 No.	1000	147.22	1472.20
	ii) Planting of Plants (1000 No. including 10% replacement)	100 No.	1000	1104.15	11041.50
5	Spot Irrigation (1000 Plants)	100 No.	1000	230.03	2300.30
6	Application of Insecticide (2 Times)	100 No.	2000	46.01	920.10
7	Application of Fertilizers (2 Times)	100 No.	2000	46.01	920.10
8	Weeding & Hoeing 3 Times	100 No.	3000	401.18	12035.25
9	Hand Watering (12 Times)	100 No.	12000	230.03	27603.84
10	Replanting of Plants 10%	100 No.	100	649.80	649.80
11	Rejungle Clearance (2 Times)	Per Ha.	1	2668.40	2668.40
12	Covering (25% plants) of plants	100 No.	250	331.22	828.1
13	Uncovering of plants	100 No.	250	36.82	92
14	Restubbing of Kana (1 Time)		0.25	30113.10	7528.3
15	Laying out & fixing of Barbed Wire	L/s			8832.20
16	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man Month 7	9569.30	6698.5
17	Material				
	i) Insecticides / Fertilizers	L/s			5610.518
	ii) POL	L/s			5610.518
	iii) Barbed Wire	L/s			56105.183
	Sub Total				210155.08
	Maintenance 1 Year				
1	Cost of raising plants for 30% replacement	1 No.	300	22.45	6733.50
2	Reopening of Pits 300 x 0.50 x 0.50 x 0.30	1 m3	21.5	66.91	1505.5
3	Refilling of pits with earth in other soils 300 x 0.50 x 0.50 x 0.30	1 m3	21.5	30.83	693.7
4	Loading & Unloading of Plants	1 No.	330	2.8	910.80
5	Carriage of Plants (300+10% Wastage = 330 avg. distance upto 10 Km.)	100 No.	330	220.2	726.50
6	Spreading of plants pit to pit	100 No.	300	147.2	441.7
7	Re-Planting to plants	100 No.	300	369.26	1107.8
8	Spot Irrigation	100 No.	300	230.00	690.01
9	Weeding & Hoeing (Three)	100 No.	3000	401.2	12035.2
10	Application of Insecticide (2 Times)	100 No.	2000	46.01	920.1
11	Application of Fertilizers (2 Times)	100 No.	2000	46.01	920.1
12	Hand Watering (6 Times)	100 No.	6000	401.2	24070.5
13	Rejungle Clearance (2 Times)	Per Ha.	1	2668.40	2668.40
14	Restubbing of Kana	Per Ha.	0.25	30112.80	7528.20
15	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1/10 Man Yr.	9569.30	6698.5
16	Repair of Barbed Wire	L/s			5610.5

17	POL & Machinery	L/s			5610.5
18	Material and Supply	L/s			5610.5
	Sub Total				84482.04
	2nd Year Maintenance				
1	Cost of raising plants for 15% replacement	1 No.	150	22.4	3366.7
2	Reopening of Pits 150 x 0.50 x 0.50 x 0.40	1 m3	15	66.91	1003.7
3	Refilling of pits with earth in other soils 150x 0.50 x 0.50 x 0.40	1 m3	11.25	30.83	346.8
4	Loading & Unloading of Plants	1 No.	165	2.8	455.4
5	Carriage of Plants (150+10% wastage=165avg distance upto 10 Km.)	100 No.	165	220.2	363.2
6	Spreading of plants pit to pit	100 No.	150	147.2	220.8
7	Re-Planting to plants	100 No.	150	257.10	385.7
8	Spot Irrigation	100 No.	150	230.00	345.0
9	Weeding & Hoeing (Twice)	100 No.	2000	401.2	8023.5
10	Hand Watering (5 Times)	100 No.	5000	230	11501.6
11	Rejungle Clearance (2 Times)	Per Ha.	1	2668.40	2668.4
12	Pruning to Plants	100 No.	100	434.90	434.9
13	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1/10 Man Yr.	9569.30	6698.5
14	Repair of Barbed Wire	L/s			5610.5
15	POL & Machinery	L/s			5610.5
18	Material and Supply	L/s			5610.5
	Sub Total				52645.8
	3rd Year Maintenance				
1	Cost of raising plants for 10% replacement	1 No.	100	22.45	2244.5
2	Reopening of Pits 100 x 0.50 x 0.50 x 0.40	1 m3	10	6691.10	669.1
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.30	1 m3	7.5	30.83	231.2
4	Loading & Unloading of Plants	1 No.	110	2.8	303.6
5	Carriage of Plants 110 avg. distance upto 10 Km.)	100 No.	110	1.13	124.3
6	Spreading of plants pit to pit	100 No.	100	147.20	147.2
7	Re-Planting to plants	100 No.	100	257.10	257.1
8	Spot Irrigation	100 No.	100	230.00	230.0
9	Weeding & Hoeing (thrice)	100 No.	3000	401.2	12035.2
10	Hand Watering (8 Times)	100 No.	8000	230	18402.4
11	Pruning to Plants 20%	100 No.	200	434.92	869.8
12	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1/10 Man Yr.	9569.30	6698.5
13	Repair of Barbed Wire	L/s			5610.5
14	POL & Machinery	L/s			5610.5
15	Material and Supply	L/s			5610.5
	Sub Total				59044.46
	4th Year Maintenance				
1	Cost of raising plants for 5% replacement	1 No.	50	22.45	1122.3
2	Reopening of Pits 50 x 0.50 x 0.50 x 0.40	1 m3	5	6691.10	334.6
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.30	1 m3	3.75	30.83	115.6
4	Loading & Unloading of Plants	1 No.	55	2.8	151.8
5	Carriage of Plants 50 avg. distance upto 10 Km.)	100 No.	55	1.13	62
6	Spreading of plants pit to pit	100 No.	50	147.20	73.6
7	Re-Planting to plants	100 No.	50	257.10	128.6
8	Spot Irrigation	100 No.	50	230.00	115.0
9	Weeding & Hoeing (thrice)	100 No.	3000	401.2	12035.2
10	Hand Watering (8 Times)	100 No.	8000	230	18402.4
11	Pruning to Plants 30%	100 No.	300	434.92	1304.8
12	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1/10 Man Yr.	9569.30	6698.5
13	Repair of Barbed Wire	L/s			5610.5
14	POL & Machinery	L/s			5610.5

15	Material and Supply	L/s			5610.5
	Sub Total				57376
	5th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9569.30	6698.50
	Sub Total				6698.50
	6th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9569.30	6698.50
	Sub Total				6698.50
	7th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9569.30	6698.50
	Sub Total				6698.50
	8th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9569.30	6698.50
	Sub Total				6698.50
	9th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9569.30	6698.50
	Sub Total				6698.50
	10th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9569.30	6698.50
	Sub Total				6698.50
	Total				503895
	Over Head expenses 5%				25195
	Wage Enhancement @ 10%				50390
	G. Total				579479
	Or Say				5,79,479/-
Cost of Compensatory Afforestation per Ha. For 7-10 Year					
Rs. 579479 per Ha. = 579479 X 0.100 = 57948/-					
Cost of Penal Compensatory Afforestation Per Ha. For 7-10					
RS. Per Ha. = (579479 x 0.0038) x 10 = 22020/-					
Net Present value per Ha. @ Rs.626000 x 0.00384 = 2403/-					
Cost of penal NPV for 1 yr = 2403 + 12% = 2691/-					
Entry Point Activity (10% cost of CA) = 5795/-					
Grand Total = 90857/-					

Divisional Forest Officer,
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