

Scheme for Compensatory Afforestation

Model rate structure for plantation of mixed tree species with rainfall upto 800 mm and medium quality, medium drained soil with soil with depth upto 30 cm.

Spacing - 3.0 m x 3.0 m
Size of Pits - 0.45 x 0.45 x 0.45 m
No of Seedlings - 1111 per ha

Wage Rate -
Rs. 323.54 per day

Net Area - 15.30 ha
Gross Area - 22.81 ha

Rs. 323.54 per day					Gross Area = 22.81 Ha				
Sr. No.	Particulars of works	Man Days	Wages	Material Supply	(Amount in Rs.) Total (Rs. Per Ha.)	Man Days	Wages	Material Supply	Total (Rs. Per Ha.)
A. Pre Monsoon Works (PPO/PYO)									
1	a. Survey and demarcation	1.00	323.54	50.00	373.54	22.81	7379.95	1140.50	8520.45
	b. Preparation of treatment map (100 m x 50 m grid)	1.00	323.54	50.00	373.54	22.81	7379.95	1140.50	8520.45
	c. Clearing of bushes and preparation of site (As per requirement)	10.00	3235.40	50.00	3285.40	153.00	49501.62	765.00	50266.62
2	Providing Chainlink fencing around periphery of plantation 22.81 Ha area. Height 1.40 m.	170.00	55001.80	42705.70	97707.50	3877.70	1254591.06	974117.02	2228708.08
3	Soil and moisture conservation works including collection of rubbles from areas upto 30 m etc	31.00	10029.74	0.00	10029.74	474.30	153455.02	0.00	153455.02
4	Alignment of 1200 rmt of CCT at 8.00 m spacing (0.25 M.D. per 100 rmt and M&S Rs. 40 per 100 rmt)	3.00	970.62	96.00	1066.62	45.90	14850.49	1468.80	16319.29
5	Digging of CCT of size 60 cm width and 45 cm depth including stacking of soil at down word slope (1200 rmt per ha 0.15 per rmt)	183.60	59401.94	0.00	59401.94	2809.08	908849.74	0.00	908849.74
6	Digging of Trench cum mound (TCM) of size 1.90 x 0.60 x 1.00 m along the periphery of plantation area including spreading/stacking the excavated soil as directed in 1 m width and 1 m height. Length 102 Rmt per Ha (127.50 cum per ha)	82.57	26714.70	50.00	26764.70	1883.42	609362.26	1140.50	610502.76
7	Alignment of pits at 3.0 x 3.0 m spacing 1111 pits per ha (0.13 M.D. and M&S Rs. 2.24 per 50 pits)	2.86	925.32	49.77	975.09	43.76	14157.46	761.48	14918.94
8	Digging of pits of 0.45 x 0.45 x 0.45 m size 1111 pits per ha (6.60 M.D. per 100 pits)	73.33	23725.19		23725.19	1121.95	362995.38	0.00	362995.38
9	Part Nursery cost for raising 1333 seedling per ha (including 20% casualty replacement) in polybag of size 12.50 x 25.00 cm (Wages Rs. 8.80 and M&S Rs. 1.76 per plant)	28.63	9262.95	2346.08	11609.03	438.04	141723.14	35895.02	177618.16
	Total	586.99	189914.74	45397.55	235312.29	10892.77	3524246.06	1016428.82	4540674.88
	Contingency 3 %				7059.37				136220.25
	Labour Welfare 4 %				9412.49				181627.00
	Grand Total	586.99	189914.74	45397.55	251784.16	10892.77	3524246.06	1016428.82	4858522.13

3. First Year									
1	Part Nursery cost for maintenance of 1333 seedling per ha Rs. 1.55 per seedling (Wages Rs. 1.11, M & S Rs. 0.44)								
2	Refilling of pits with good quality soil a) Wages 1.66 M.D. per 100 pits b) 20% soil replacement 20 curri per ha. Rs. 300/- per curri. c) Filling 5% farm yard manure in pits. 5 curri per ha. Rs. 700/- per curri	11.68	3778.9472	586.52	4365.47	178.70	57817.89116	8973.76	62791.65
3	Transportation of 1333 seedlings from Nursery to plantation site including loading & unloading (0.14 M.D. per 100 seedlings & M.S. Rs. 1 per seedlings)	18.44	5966.0776	9500.00	15466.08	282.13	51285.58728	145350.00	236630.99
4	Plantation of agave suckers in 3 rows on YCM. (306 suckers per ha @ Rs. 500 per kg)	1.55	501.487	1333.00	1834.49	23.72	7672.7511	26394.50	28067.65
5	Sowing of seeds on CCT 1200 rmt. 5 kg per has @ Rs. 50 per kg	1.00	373.54	981.00	1304.54	22.81	7379.9474	22376.61	25756.56
6	Removal of weeds from CCT (1.20 M.D. per 100 rmt)	12.00	3887.48	750.00	4132.48	273.72	88559.3588	5707.50	94761.87
7	Planting of seedling 1111 per ha (1.00 MD per 100 seedlings.)	14.40	4658.976	0.00	4658.98	220.32	71281.3378	0.00	71281.33
8	3 weedings and 2 soil sorkings (3.50 M.D. per 100 seedlings) fertilizer application Rs. 0.45 per seedling.	19.11	6182.8494	0.00	6182.85	292.38	94597.5582	0.00	94597.55
9	Causality replacement (20% 222 seedling per ha) (2 M.D. per 100 seedlings)	38.88	12579.2352	500.00	13079.24	594.86	192462.2986	7650.00	200112.30
10	Part Nursery cost for causality replacement in SYO (222 seedlings per ha.) (wages Rs. 8.80 and material supply Rs. 1.76 total Rs. 10.56 per seedling.)	4.44	1436.5176	0.00	1436.52	67.93	21978.71928	0.00	21978.72
		7.78	2517.1412	390.72	2907.86	119.03	38512.26036	5978.02	44490.28
11	Watch and ward (10 months - 1 watcher per 10 ha)	30.00	9706.2	0.00	9706.20	684.30	221398.422	0.00	221398.42
12	Fire tracing	2.00	647.08	0.00	647.08	45.62	14759.8948	0.00	14759.89
	Total	161.28	52180.53	13541.24	65721.77	2805.53	907702.47	216425.78	1124128.25
	Contingency 3 %				1971.65				33723.85
	Labour Welfare 4%				2628.87				44965.13
	Grand Total	161.28	52180.53	13541.24	70322.30	2805.53	907702.47	216425.78	1202817.23

C. Second Year Operations									
1	Part nursery cost for seedlings for causality replacement (222 seedlings per ha)								
2	Transportation of 222 seedlings from causality replacement including loadings & unloading (0.14 M.D. & M.S. Rs. 1 per 100 seedlings)	1.95	630.903	97.67	728.57	29.84	9652.8159	1494.35	11147.17
3	Planting for causality replacement 222 seedlings (2.00 M.D. per 100 seedlings)	0.31	100.2974	222.00	322.30	4.74	1534.55022	3396.60	4931.15
4	2 weedings and 1 soil working, with fertilizer application at Rs. 0.45 per weeding	4.44	1436.5176	0.00	1436.52	67.93	21978.71928	0.00	21978.72
5	Watch and ward 12 months - 1 watcher per 10.00 ha	27.77	8984.7058	500.00	9484.71	424.88	137465.9987	7650.00	145116.00
6	Fire tracing	36.50	11809.21	0.00	11809.21	832.57	269368.0801	0.00	269368.08
	Total	2.00	647.08	0.00	647.08	45.62	14759.8948	0.00	14759.89
	Contingency 3 %	72.97	23608.71	819.67	24428.38	1405.58	454760.06	12540.95	467301.01
	Labour Welfare 4%				732.85				14019.03
	Grand Total				977.14				18692.04
		72.97	23608.71	819.67	26138.37	72.97	23608.71	819.67	500012.08
D. Third Year Operations									
1	1 weeding and 1 soil working (1.50 M.D. per 100 seedlings)	16.67	5393.41	0.00	5393.4118	255.05	82519.20	0.00	82519.20054
2	Watch and ward 12 months - 1 watcher per 10.00 ha	36.50	11809.21	0.00	11809.21	832.57	269368.0801	0.00	269368.0801
3	Fire tracing	2.00	647.08	0.00	647.08	45.62	14759.8948	0.00	14759.8948
	Total	55.17	17849.70	0.00	17849.70	1133.24	366647.18	0.00	366647.18
	Contingency 3 %				535.49				10999.42
	Labour Welfare 4%				713.99				14665.89
	Grand Total	55.17	17849.7018	0.00	19099.18	1133.24	366647.18	0.00	392312.48
E. Fourth Year Operations									
1	Fire tracing	2.00	647.08	0.00	647.08	45.62	14759.89	0.00	14759.89
2	Watch and ward 12 months - 1 watcher per 10.00 ha	36.50	11809.21	0.00	11809.21	832.57	269368.08	0.00	269368.08
	Total	38.50	12456.29	0.00	12456.29	878.19	284127.97	0.00	284127.97
	Contingency 3 %				373.69				8523.84
	Labour Welfare 4%				498.25				11365.12
	Grand Total	38.5	12456.29	0.00	13328.23	878.185	284127.9749	0.00	304016.93

F. Fifth Year Operations								
1 Fire tracing	2.00	647.08	0.00	647.08	45.62	14759.89	0.00	14759.89
2 Watch and ward 12 months - 1 watcher per 10.00 ha	36.50	11809.21	0.00	11809.21	832.57	269368.08	0.00	269368.08
Total	38.50	12456.29	0.00	12456.29	878.19	284127.97	0.00	284127.97
Contingency 3 %				373.69				8523.84
Labour Welfare 4%				498.25				11365.12
Grand Total	38.5	12456.29	0.00	13328.23	878.185	284127.9749	0.00	304016.93
G. Sixth Year Operations								
1 Fire tracing	2.00	647.08	0.00	647.08	45.62	14759.89	0.00	14759.89
2 Watch and ward 12 months - 1 watcher per 10.00 ha	36.50	11809.21	0.00	11809.21	832.57	269368.08	0.00	269368.08
Total	38.50	12456.29	0.00	12456.29	878.19	284127.97	0.00	284127.97
Contingency 3 %				373.69				8523.84
Labour Welfare 4%				498.25				11365.12
Grand Total	38.5	12456.29	0.00	13328.23	878.185	284127.9749	0.00	304016.93
H. Seventh Year Operations								
1 Fire tracing	2.00	647.08	0.00	647.08	45.62	14759.89	0.00	14759.89
2 Watch and ward 12 months - 1 watcher per 10.00 ha	36.50	11809.21	0.00	11809.21	832.57	269368.08	0.00	269368.08
Total	38.50	12456.29	0.00	12456.29	878.19	284127.97	0.00	284127.97
Contingency 3 %				373.69				8523.84
Labour Welfare 4%				498.25				11365.12
Grand Total	38.5	12456.29	0.00	13328.23	878.185	284127.9749	0.00	304016.93

Abstract

Sr. No.	Year of operation	Man days	Wages	Material supply	Total	Other expenses	Total	Total amount (rounded off)	Man days	Wages	Material supply	Total	Other expenses	Total	Total amount (rounded off)
1	Pre Monsoon works	586.99	189914.74	45397.55	235312.29	16471.86	251784.16	251784.16	10892.77	3524246.06	1016428.82	4540674.82	317947.24	4858522.13	4858522.13
2	First Year Operations	161.28	52180.53	13541.24	65721.77	4600.52	70322.30	70322.30	2805.53	907702.47	216425.78	1124128.25	78688.98	1202817.23	1202817.23
3	Second Year Operations	72.97	23608.71	819.67	24428.38	1709.99	26138.37	26138.37	1405.58	454760.06	12540.95	467301.01	32711.07	500012.08	500012.08
4	Third Year Operations	55.17	17849.70	0.00	17849.70	1249.48	19099.18	19099.18	1133.24	366647.18	0.00	366647.18	25665.30	392312.48	392312.48
5	Fourth Year Operations	38.50	12456.29	0.00	12456.29	871.94	13328.23	13328.23	878.19	284127.97	0.00	284127.97	19888.96	304016.93	304016.93
6	Fifth Year Operations	38.50	12456.29	0.00	12456.29	871.94	13328.23	13328.23	878.19	284127.97	0.00	284127.97	19888.96	304016.93	304016.93
7	Sixth Year Operations	38.50	12456.29	0.00	12456.29	871.94	13328.23	13328.23	878.19	284127.97	0.00	284127.97	19888.96	304016.93	304016.93
8	Seventh Year Operations	38.50	12456.29	0.00	12456.29	871.94	13328.23	13328.23	878.19	284127.97	0.00	284127.97	19888.96	304016.93	304016.93
	Total	1030.41	333378.85	59758.46	393137.31	27519.61	420656.92	420656.92	19749.85	6389867.67	1245395.56	7635263.22	534468.43	8169731.65	8169731.65

Cost per plant Rs. 225.02

- Note :-
1. The rates indicated are as per item No. 3 of Government of Maharashtra resolution No. MREGS-2011/F.No.85/ EGS-1, Planning department, EGS division dt. 3/11/2011. The rates for item No. 4 & 5 of premonsoon works and item No. 2 of FYO are as per model No. 7
 2. Rubble bunds of size bottom width 1.00 m. top width 0.60 m and height 1.00 m should be constructed wherever digging of TCM is not possible.


 Range Forest Officer
 Dhule