

Model Rate Structure for Compensatory Afforestation

Model No. 1

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

Spacing - 2 m x 2 m

Size of Pits - 0.45 x 0.45 x 0.45m

No. of Seedlings - 2500 per ha

Wage Rate -
Rs. 300 per day.
(Amount in Rs.)

Sr.No.	Particulars of works	Man days	Wages	Material Supply	Total (Rs. Per Ha.)
A.Pre Monsoon Works PPO/PYO					
1	a. Survey and demarcation	1.00	300.00	50.00	350
	b. Preparation of treatment map (100 m x 50 m grid)	1.00	300.00	50.00	350
	c. Clearing of bushes and preparation of site (As per requirement)	10.00	3000.00	50.00	3050
2	Soil and moisture conservation works including collection of rubbles from areas up to 30 m etc	31.00	9300.00	0.00	9300
3	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	82.57	24771.00	50.00	24821
4	Alignment of pits at 2m x 2m spacing. 2500 pits per Ha (0.13 M.D. per 50 pits) M & S @ Rs. 2.24 per 50 pits.	6.50	1950.00	112.00	2062
5	Digging of pits of size 0.45 x 0.45 x 0.45 m (2500 pits per ha.) 6.60 M.D. per 100 pits	165.00	49500.00	0.00	49500
6	Part Nursery cost for raising 3000 seedlings per ha (including 20 % casualty replacement) in polybag of size 12.50 x 25.00 cm (Wages Rs.	105.14	31542.00	5280.00	36822
7	Cost of agave suckers (420 per ha.) Rs. 25 per 100 suckers (or cost of prosopis, chilar etc seed	1.68	504.00	315.00	819
Total		403.89	121167.00	5907.00	127074
Contingency 3 %				3812.22	3812.22
Labour Welfare 4 %				5082.96	5082.96
Grand Total		403.89	121167.00	14802.18	135969.18

B. First Year Operations					
1	Part Nursery cost for maintainance of 3000 sedling per ha Rs. 2.64 per seedling (Wages Rs. 2.20, M & S Rs.	26.29	7887.00	1320.00	9207.00
2	Refilling of pits by good quality soil including application of single super phosphate (1.66	41.50	12450.00	1200.00	13650.00
3	Transport of seedlings from nursery to plantation site (including loading & unloading) Rs. 1.00 per seedling wages	4.20	1260.00	3000.00	4260.00
4	Digging and transportation of agave suckers from nursery to plantation site and planting	1.68	504.00	0.00	504.00
5	Planting of 2500 seedlings (1.1	27.50	8250.00	0.00	8250.00
6	Causality replacement (20 % 500 seedling per ha) (2 M.D per 100 seedlings)	10.00	3000.00	0.00	3000.00
7	3 weedings and 2 soil workings (3.50 M.D per 100 seedlings) fertilizer application Rs. 0.45	87.50	26250.00	1125.00	27375.00
8	Watch and ward (10 months - 1 watcher per 10 ha.)	30.00	9000.00	0.00	9000.00
9	Fire tracing	2.00	600.00	0.00	600.00
10	Part Nursery cost for casualty replacement in SYO (500 seedlings per ha.) (wages Rs. 8.80 and material supply Rs. 1.76 total Rs. 10.56 per	17.52	5256.00	880.00	6136.00
11	Special technicla works		0.00		3700.00
Total		248.19	74457.00	7525.00	85682.00
Contingency 3 %				2570.46	2570.46
Labour Welfare 4 %				3427.28	3427.28
Grand Total		248.19	74457.00	13522.74	91679.74
C. Second Year Operations					
1	Part nursery cost for seedlings for causality replacement (500 seedlings per ha.)	4.38	1314.00	220.00	1534.00
2	Transport of seedlings for causality replacement from nursery to plantation site (including loading and unloading) wages 0.14 M.D per	0.70	210.00	500.00	710.00
3	Causality replacement (500 seedling per ha) (2 M.D per 100 seedlings)	10.00	3000.00	0.00	3000.00

4	2 weedings and 1 soil working, with fertilizer application at Rs. 0.45 per seedling	62.50	18750.00	1125.00	19875.00
5	Fire tracing	2.00	600.00	0.00	600.00
6	Watch and ward (12 months - 1 watcher per 10 ha.)	36.50	10950.00	0.00	10950.00
Total		116.08	34824.00	1845.00	36669.00
Contingency 3 %				930.16	930.16
Labour Welfare 4 %				1240.22	1240.22
Special technical works				3700.00	3700.00
Grand Total		116.08	34824	7715.38	42539.38
D. Third Year Operations					
1	1 weeding and 1 soil working (1.50 M.D per 100 seedlings)	37.50	11250.00	0.00	11250.00
2	Fire tracing	2.00	600.00	0.00	600.00
3	Watch and ward (12 months - 1 watcher per 10 ha.)	36.50	10950.00	0.00	10950.00
Total		76.00	22800.00	0.00	22800.00
Contingency 3 %				684	684.00
Labour Welfare 4 %				912	912.00
Grand Total		76.00	22800.00	1596.00	24396.00
E. Fourth Year Operations					
1	Fire tracing	2.00	600.00	0.00	600.00
2	Watch and ward (12 months - 1 watcher per 10 ha.)	36.50	10950.00	0.00	10950.00
Total		38.50	11550.00	0.00	11550.00
Contingency 3 %				346.50	346.50
Labour Welfare 4 %				462.00	462.00
Grand Total		38.50	11550.00	808.50	12358.50
F. Fifth Year Operations					
1	Fire tracing	2.00	600.00	0.00	600.00
2	Watch and ward (12 months - 1 watcher per 10 ha.)	36.50	10950.00	0.00	10950.00
Total		38.50	11550.00	0.00	11550.00
Contingency 3 %				346.50	346.50
Labour Welfare 4 %				462.00	462.00
Grand Total		38.50	11550.00	808.50	12358.50
G. Sixth Year Operations					
1	Fire tracing	2.00	600.00	0.00	600.00
2	Watch and ward (12 months - 1 watcher per 10 ha.)	36.50	10950.00	0.00	10950.00
Total		38.50	11550.00	0.00	11550.00
Contingency 3 %				346.50	346.50
Labour Welfare 4 %				462.00	462.00
Grand Total		38.50	11550.00	808.50	12358.50
H. Seventh Year Operations					
1	Fire tracing	2.00	600.00	0.00	600.00
2	Watch and ward (12 months - 1 watcher per 10 ha.)	36.50	10950.00	0.00	10950.00
Total		38.50	11550.00	0.00	11550.00
Contingency 3 %				346.5	346.50
Labour Welfare 4 %				462	462.00

Grand Total	38.50	11550.00	808.50	12358.50
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Abstract for Model No. 1

(Amount in Rupees)

Sr.No.	Year of Operation	Man days	Wages	Material Supply	Total	Other Expenses	Total	Total amount (rounded off)
1	Pre Monsoon works	403.89	121167.00	5907.00	127074.00	8895.18	135969.18	135969
2	First Year Operation	248.19	74457.00	7525.00	85682.00	5997.74	91679.74	91680
3	Second Year Operation	116.08	34824	1845	36669	2566.83	39235.83	39236
4	Third Year Operation	76.00	22800.00	0.00	22800.00	1596	24396.00	24396
5	Fourth Year Operation	38.50	11550.00	0.00	11550.00	808.5	12358.50	12359
6	Fifth Year Operation	38.50	11550.00	0.00	11550.00	808.5	12358.50	12359
7	Sixth Year Operation	38.50	11550.00	0.00	11550.00	808.5	12358.50	12359
8	Seventh Year Operation	38.50	11550.00	0.00	11550.00	808.5	12358.50	12359
Total		998.16	299448.00	15277.00	318425.00	22289.75	340714.75	340715

Total For 1ha.	340715
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Cost per plant RS. 136.29

- 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. Special technical works includes application of improved technology in nursery & plantations, irrigation as per requirement and site condition, additional SMC works, creation of waterholes, Soil replacement in pits, application of biofertilizers, micro nutrients etc.
 3. 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.


Deputy Conservator of Forests
Pune, Forest Division, Pune.