

Model Rate Structure for Compensatory Afforestation

Model No.4

Model rate Structure for plantation of mixed tree species having rainfall upto 800 mm and medium quality, medium drained soil.
 Range- Panhala
 Round - Panhala
 Beat -Panhala
 Village -Badewadi
 Spacement 3m x 3m
 Size of Pits 0.45 x 0.45 x 0.45 m
 No. Of Seedlings 1111 per ha
 Comp. No - 836 FGN 186
 Plantation Area - 1.00 Ha
 Wage Rate - Rs. 356.35 Per day.
 Total Plants -11111

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Sr. No	Particulare of works	Per Hectar			Area	As per condition on the spot 1.00 Hectar				
		Man days	Weges	Material supply		Total (Rs.Per Ha.)	Man days	Weges	Material supply	Total (Rs.Per Ha.)
A. Pre Monsoon Works PPO/PYO										
1	(a) Survey and demarcation									Letter Dt. 07/05/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1a
	(b) Preparation of treatment map (100m X 50 m grid)	1.00	356.35	91.00	1	1.00	356.35	91.00	447.35	Item No. 1b
	(c) Digging trial pits of size 0.30 X 0.30 X 0.60 in corner of Grid.	1.00	356.35	91.00	1	1.00	356.35	91.00	447.35	Item No. 1c
	(d) Fixing 60cm X 0.05cm X 12 cm cement pillars upto 30cm deep in corner of Grid, painting with Grid No. Etc complete (3 pillars, Rs.75/- for each pillars)	0.40	142.54	0.00	1	0.40	142.54	0.00	142.54	Item No. 1c
	(e) Clearing of bushes and preparation of site (As per requirement)	0.00	0.00	225.00	1	0.00	0.00	225.00	225.00	Item No. 3
2	Soil and moisture conservation works including collection of rubbles from areas upto 30 m etc.	10.00	3563.50	91.00	1	10.00	3563.50	91.00	3654.50	Item No. 1e
3	Providing and fixing chain link fencing, 102 Rmt per ha (With one gate + two wickets gates for one site) (Rs.1494/- per Rmt of basic rate + 20% for transportation of ave. Leadplus 20% for tribal/remote area (by tender process.) (Rs.1494+149+149= 1792/- per Rmt (1.60 Rmt high with G.I. Chain link size 50mmX50mm .8 gauge thick and fixed 75mm above Alignment of Pits at 3m x 3m spacement. 1111 pits per 100 pits 0.26 M.D, M/S 8.18 per 100 pits	31.00	11046.85	0.00	1	31.00	11046.85	0.00	11046.85	Item No. 2
4	Digging of pits of size 0.45 X 0.45 X 0.45m (1111 pits per ha) 6.60 M.D per 100 pits. Note :- As per local conditions provision for mechanized digging can be made	0.00	0.00	182865.60	1	0.00	0.00	182865.60	182865.60	As per SSR rates 2017/18 Item No. 1744
5	Construction of 5.00 Rmt wide Inspection Path 1M.D. Per 100 Rmt	2.89	1029.85	91.00	1	2.89	1029.85	91.00	1120.85	Item No. 4
6		73.33	26131.15	0.00	1	73.33	26131.15	0.00	26131.15	Item No. 5
		1.00	356.35	0.00	1	1.00	356.35	0.00	356.35	Item No. 6

7	Enumeration of all valuable plant species at plantation site and grid wise counting and providing color band and recording the same in Register (0.75 M.D.) per 100 plants	0.75	267.26	25.00	292.26	1	0.75	267.26	25.00	292.26	Item No. 7
8	Providing and fixing (4 feet x 3 feet) information board each per site	0.00	0.00	5000.00	5000.00	1	0.00	0.00	5000.00	5000.00	Item No. 8
9	Part Nursery cost of raising 1333 seedlings per ha (including 20% casualty replacement) in polygons of size 12.50 x 25.00 cm (Wages Rs. 11.90 and M & S Rs.3.62 per plant)	46.70	16641.55	4798.80	21440.35	1	46.70	16641.55	4798.80	21440.35	Item No. 9, 20% casualty instead of 10%
	Total	168.07	59891.74	193278.40	253170.14		168.07	59891.74	193278.40	253170.14	
	Contingency 3%									7595.10	
	Labour Welfare 4%									10126.81	
	Grand Total									270892.05	
B. First Year Operations											
1	Part Nuresry cost for maintenance of 1333 seedling per ha Rs. 2.64 per seedling (Wages Rs. 2.69, M & S Rs.0.81)	14.80	5273.98	91.00	5364.98	1	14.80	5273.98	91.00	5364.98	Letter Dt.07/03/2018 Irrigated & fencing Plantation Model no.1 Item No. 1 20% instead of 10%
2	Refilling of pits by good quality soil including application of single super phosphate (1.66 MD per 100 pits)	18.44	6571.09	1944.25	8515.34	1	18.44	6571.09	1944.25	8515.34	Item no.2
3	Transportation of 1333 seedlings from Nursery to plantation site including loading & unloading (0.14 M.D. Per 100 seedlings & M.S. Rs.1.82 per seedlings)	1.87	666.37	2426.00	3092.37	1	1.87	666.37	2426.00	3092.37	Item no.3 1333 plants instead of 1222
4	Planting of 1111 seedlings (1.0 M.D. Per 100 Seedlings)	11.11	3959.05	0.00	3959.05	1	11.11	3959.05	0.00	3959.05	Item no.4
5	3 seedlings (1 Rmt circular) and 2 soil workings (4.00 M.D. Per 100 seedlings) fertilizer application Rs. 0.82 per seedling	44.44	15836.19	911.02	16747.21	1	44.44	15836.19	911.02	16747.21	Item no.5
6	Casualty replacement (20% 222 Seedlings per ha.) (2 M.D. Per 100 seedlings)	4.44	1582.19	0.00	1582.19	1	4.44	1582.19	0.00	1582.19	Item no.6 20% Instead of 10%
7	Part Nuresry cost for causality replacement in SYO (222 seedlings per ha.) (wages Rs. 11.90 and material supply Rs.3.62 total Rs.12.55 per seedling)	7.78	2772.40	803.64	3576.04	1	7.78	2772.40	803.64	3576.04	Item no.8 20% Instead of 10%
8	Watch and ward (9 months - 1 watcher per 10 ha)	27.38	9756.86	0.00	9756.86	1	27.38	9756.86	0.00	9756.86	Item no.9
9	Soil working for naturally grower plants and singling (1.15 M.D. Per 100 plants)	1.15	409.80	10.00	419.80	1	1.15	409.80	10.00	419.80	Item no.10
10	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.12
	Total	133.41	47540.65	6185.91	53726.56		133.41	47540.65	6185.91	53726.56	
	Contingency 3%				1611.80					1611.80	

	2149.06				2132.27
	57487.42				57038

C. Second Year Operations

1	Part nursery cost for seedlings for causality replacement (222 seedlings per ha) labour rate @ Rs.3.77 and M.S. Rs.1.82 per seedlings.	2.46	876.62	404.04	1280.66	1	2.46	876.62	404.04	1280.66	Letter Dt.07/03/2018 Irrigated & fencing Plantation Model no.1 Item No. 1 20% instead of 10%
2	Transportation of 222 seedlings for causality replacement from nursery to plantation site (including loading and unloading) wages 0.14 M.D. Per 100 Seedling & M.S. Rs. 1.82 per seedlings	0.31	110.47	404.04	514.51	1	0.31	110.47	404.04	514.51	Item no.2 20% Instead of 10%
3	Planting for causality replacement 222 seedlings (2.00 M.D. Per 100 seedlings)	4.44	1582.19	0.00	1582.19	1	4.44	1582.19	0.00	1582.19	Item no.3 20% Instead of 10%
4	2 weedings and 1 soil working, with fertilizer application 2.5 M.D. Per 100 seedlings at M.S. Rs. 0.82 per seedlings	27.77	9895.84	911.02	10806.86	1	27.77	9895.84	911.02	10806.86	Item no.4
5	Watch and ward 12 months - 1 watcher per 10.00 ha	36.50	13006.78	0.00	13006.775	1	36.50	13006.78	0.00	13006.78	Item no.6
6	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.8
	Total	73.48	26184.60	1719.10	27903.70		73.48	26184.60	1719.10	27903.70	
	Contingency 3%				837.11		0.00	0.00	0.00	837.11	
	Labour Welfare 4%				1116.15		0.00	0.00	0.00	1116.15	
	Grand Total				29856.96		0.00	0.00	0.00	29856.96	

D. Third Year Operations

1	1 weeding and 1 soil working (1.50 M.D per 100 seedlings) applying fertilizer @ Rs.0.82 per plant.	16.67	5940.35	911.02	6851.37	1	16.67	5940.35	911.02	6851.37	Letter Dt.07/03/2018 Irrigated & fencing Plantation Model no.1 Item No. 1
2	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	13006.78	0.00	13006.775	1	36.50	13006.78	0.00	13006.78	Item no.3
3	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2.00	712.70	25.00	737.7	1	2.00	712.70	25.00	737.70	Item no.5
4	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.6
	Total	57.17	20372.53	936.02	21308.55		57.17	20372.53	936.02	21308.55	
	Contingency 3%				639.26		0.00	0.00	0.00	639.26	
	Labour Welfare 4%				852.34		0.00	0.00	0.00	852.34	
	Grand Total				22800.15		0.00	0.00	0.00	22800.15	

E. Fourth Year Operations

1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	13006.78	0.00	13006.775	1	36.50	13006.78	0.00	13006.78	Letter Dt.07/03/2019 Irrigated & fencing Plantation Model no.1 Item No. 1
2	Counting of survival percentage Grid wise and Species wise and to Notethe same on Register in May and October.	2.00	712.70	25.00	737.7	1	2.00	712.70	25.00	737.70	Item no.2
3	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.3
	Total	40.50	14432.18	25.00	14457.18		40.50	14432.18	25.00	14457.18	
	Contingency 3%				433.72					433.72	
	Labour Welfare 4%				578.29					578.29	
	Grand Total				15469.18					15469.18	

F. Fifth-Year Operations

1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	13006.78	0.00	13006.775	1	36.50	13006.78	0.00	13006.78	Letter Dt.07/03/2018 Irrigated & fencing Plantation Model no.1 Item No. 1
2	Counting of survival percentage Grid wise and Species wise and to Notethe same on Register in May and October.	2.00	712.70	25.00	737.7	1	2.00	712.70	25.00	737.70	Item no.2
3	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.3
	Total	40.50	14432.18	25.00	14457.18		40.50	14432.18	25.00	14457.18	
	Contingency 3%				433.72					433.72	
	Labour Welfare 4%				578.29					578.29	
	Grand Total				15469.18					15469.18	

G. Six Year Operations

1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	13006.78	0.00	13006.775	1	36.50	13006.78	0.00	13006.78	Letter Dt.07/03/2018 Irrigated & fencing Plantation Model no.1 Item No. 1
2	Counting of survival percentage Grid wise and Species wise and to Notethe same on Register in May and October.	2.00	712.70	25.00	737.7	1	2.00	712.70	25.00	737.70	Item no.2
3	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.3
	Total	40.50	14432.18	25.00	14457.18		40.50	14432.18	25.00	14457.18	
	Contingency 3%				433.72					433.72	
	Labour Welfare 4%				578.29					578.29	
	Grand Total				15469.18					15469.18	

H. Seventh Year Operations

1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	13006.78	0.00	13006.775	1	36.50	13006.78	0.00	13006.78	Letter Dt:07/03/2018 Irrigated & fencing Plantation Model no.1 Item No. 1
2	Counting of survival percentage Grid wise and Species wise and to Notethe same on Register in May and October.	2.00	712.70	25.00	737.7	1	2.00	712.70	25.00	737.70	Item no.2
3	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.3
	Total	40.50	14432.18	25.00	14457.18		40.50	14432.18	25.00	14457.18	
	Contingency 3%				433.72					433.72	
	Labour Welfare 4%				578.29					578.29	
	Grand Total				15469.18					15469.18	

I. Eighth Year Operations

1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	13006.78	0.00	13006.775	1	36.50	13006.78	0.00	13006.78	Letter Dt:07/03/2018 Irrigated & fencing Plantation Model no.1 Item No. 1
2	Counting of survival percentage Grid wise and Species wise and to Notethe same on Register in May and October.	2.00	712.70	25.00	737.7	1	2.00	712.70	25.00	737.70	Item no.2
3	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.3
	Total	40.50	14432.18	25.00	14457.18		40.50	14432.18	25.00	14457.18	
	Contingency 3%				433.72					433.72	
	Labour Welfare 4%				578.29					578.29	
	Grand Total				15469.18					15469.18	

J. Ninth Year Operations

1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	13006.78	0.00	13006.775	1	36.50	13006.78	0.00	13006.78	Letter Dt:07/03/2018 Irrigated & fencing Plantation Model no.1 Item No. 1
2	Counting of survival percentage Grid wise and Species wise and to Notethe same on Register in May and October.	2.00	712.70	25.00	737.7	1	2.00	712.70	25.00	737.70	Item no.2
3	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.3
	Total	40.50	14432.18	25.00	14457.18		40.50	14432.18	25.00	14457.18	
	Contingency 3%				433.72					433.72	
	Labour Welfare 4%				578.29					578.29	
	Grand Total				15469.18					15469.18	

K. Tenth Year Operations											
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	13006.78	0.00	13006.775	1	36.50	13006.78	0.00	13006.78	Letter Dt.07/03/2018 Irrigated & fencing Plantation Model no.1 Item No. 1
2	Counting of survival percentage Grid wise and Species wise and to Notethe same on Register in May and October.	2.00	712.70	25.00	737.7	1	2.00	712.70	25.00	737.70	Item no.2
3	Fire tracing	2.00	712.70	0.00	712.7	1	2.00	712.70	0.00	712.70	Item no.3
	Total	40.50	14432.18	25.00	14457.18		40.50	14432.18	25.00	14457.18	
	Contingency 3%				433.72					433.72	
	Labour Welfare 4%				578.29					578.29	
	Grand Total				15469.18					15469.18	

Abstract for Modal No.4

Sr No.	Year of Operation	Man days	Wages	Material supply	Total	Other expenses	Total amount
1	Pre Monsoon works	168.07	59892	193278	253170	17722	270892
2	First Year Operations	133.41	47541	6186	53727	3761	57487
3	Second Year Operations	73.48	26185	1719	27904	1953	29857
4	Third Year Operations	57.17	20373	936	21309	1492	22800
5	Fourth Year Operations	40.50	14432	25	14457	1012	15469
6	Fifth Year Operations	40.50	14432	25	14457	1012	15469
7	Sixth Year Operations	40.50	14432	25	14457	1012	15469
8	Seventh Year Operations	40.50	14432	25	14457	1012	15469
9	Eighth Year Operations	40.50	14432	25	14457	1012	15469
10	Ninth Year Operations	40.50	14432	25	14457	1012	15469
11	Tenth Year Operations	40.50	14432	25	14457	1012	15469
	Total	40.50	255015	202294	457309	32012	489321

Cost per plant Rs. 440


Deputy Conservator of Forests,
Kolhapur Division Kolhapur