

Model Rate Structure for Compensatory Afforestation**Model No.5.****Fencing and Irrigated Plantations**

Model rate structure for plantation of mixed tree species having rainfall less than 800 mm and medium quality, medium drained soil.
 Spacement - 3m x 3m
 Size of Pits - 0.45 x 0.45 x 0.45m
 No. of Seedlings - 1111 per ha
 Wage rate Rs. 339.61 per day.

Sr.No	Particulars of works	Man days	Wages	Material supply	Total (Rs. Per Ha.)	Sanction Letter Dt. / Model No. / Item No.	Man days	Wages	Material supply	Total (Rs. Per Ha.)
A. Pre Monsoon Works PPO/PYO										
1	(a) Survey and demarcation	1	339.61	91	430.61	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Item No. 1b Item No. 1c Item No. 1d Item No. 1e	1.9425	659.69425	176.7675	836.459925
	(b) Preparation of treatment map (100 m x 50 m grid)	1	339.61	91	430.61		1.9425	659.69425	176.7675	836.459925
	(c) Digging trial pits of size 0.30x0.30x0.60 in corner of Grid.	0.4	135.84	0	135.84		0.777	263.8692	0	263.8692
	(d) Fixing 60cm x 0.05cm x12cm cement pillars upto 30cm deep in corner of Grid, painting with Grid No. etc complete (3 pillars, Rs 75/- for each pillars)	0	0	225	225		0	0	437.0625	437.0625
	(e) Clearing of bushes and preparation of site (As per requirement)	10	3396.1	91	3487.1		19.425	6596.92425	176.7675	6773.69175
2	Soil and moisture conservation works including collection of rubbles from areas upto 30 m etc	31	10527.91	0	10527.91	Item No. 2	60.2175	20450.46518	0	20450.46518
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 (1.60 Rmt height with G.I. Chain link 50mmx50m, 8 gauge thick and fixed 75mm above ground level complete as per SSR item No.1744 for 2017-18)	0	0	182865.6	182865.6	As per SSR rates 201718 Item No. 1744	0	0	355216.428	355216.428
4	Alignment of pits at 3m x 3m spacemnt. 1111 pits per Ha (0.25 per 100 pits and M&S @ Rs. 1111 pits per ha) 6.60 M.D per 100 pits.	2.78	944.12	49.77	993.89	Item No. 4	5.40015	1833.9531	96.678225	1930.631325
5	Digging of pits of size 0.45 x 0.45 x 0.45 m (1111 pits per ha) 6.60 M.D per 100 pits. Note :- As per local conditions provision for mechanized digging can be made.	73.33	24903.6	0	24903.6	Item No. 5	142.448525	48375.243	0	48375.243
6	Construction of 5.00 Rmt wide Inspection Path 1M.D per 100 Rmt	1	339.61	0	339.61	Item No. 6	1.9425	659.69425	0	659.69425
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	254.71	25	279.71	Item No. 7	1.456875	494.774175	48.5625	543.336675
8	Providing and fixing (4 feet x 3 feet) information board each per site	0	0	5000	5000	Item No. 8	0	0	9712.5	9712.5
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)	46.71	15863.18	4825.46	20688.84	Item No. 9 20% Casualty replacement in place of 10%	90.734175	30814.22715	9373.45605	40187.6832
	Total	167.97	57044.29	193263.83	250308.12		326.281725	110808.5333	375414.9898	486223.5231
	Contingency 3%		0	7509.23	7509.24		0	0	14586.70569	14586.70569
	Labour Welfare 4%		0	10012.31	10012.32		0	0	19448.94092	19448.94092
	Grand Total	167.97	57044.29	193263.83	267829.69		326.281725	110808.5333	375414.9898	520259.1697
B. First Year Operations										
1	Part Nursery cost for maintenance of 1333 seedlings per ha Rs. 3.77 per seedling (Wages Rs.2.50 and M & S Rs. 0.81)	14.8	5062.23	1079.23	6105.96	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1 casualty replacement 20%	28.749	9833.381775	2097.375525	11930.7573
2	Refilling of pits by good quality soil including application of single super phosphate (1.66 MD per 100 pits)	18.44	6262.41	1944.25	8206.66	Item No. 2	35.8197	12164.73143	3776.705625	15941.43705
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	635.07	2426	3061.07	Item No. 3 10% Extra Plants to be transported	3.632475	1233.623475	4712.505	5946.128475
4	Planting of 1111 seedlings (1.0 M.D per 100 seedlings)	11.11	3773.07	0	3773.07	Item No. 4	21.581175	7329.188475	0	7329.188475
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	15092.27	911.02	16003.29	Item No. 5	86.3247	29316.73448	1769.65635	31086.39083
6	Watering 1111 seedlings November and December 1 time each, January to March 2 times each per seedlings 5 litre water, purchase of 1111 plastic can of 5 litre / matka @Rs.25/- each and 100 litre capacity 11 drums @Rs.400/- each for supplying water and water supply @Rs.0.05 per litre and wages for watering 1 M.D. for 150 seedlings.	59.25	20121.89	54395	74516.89	Item No. 7	115.093125	39086.77133	105662.2875	144749.0588
7	Casualty replacement (20% 222 Seedlings per ha) (2 M.D per 100 seedlings)	4.44	1507.87	0	1507.87	Item No. 6 20% instead of 10%	8.6247	2929.037475	0	2929.037475
8	Part Nursery 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)	7.77	2638.77	803.64	3442.41	Item No. 8 20% instead of 10%	15.093125	5125.810725	1561.0707	6686.881425
9	Watch and ward (10 months - 1 watcher per 10 ha)	27.38	9298.52	0	9298.52	Item No. 9	53.18565	18062.3751	0	18062.3751
10	Soil working for naturally grower plants and singling (1.15 M.D. per 100 plants)	1.15	390.55	10	400.55	Item No. 10	2.23875	758.643375	19.425	778.068375
11	Fire tracing	2	679.22	0	679.22	Item No. 12	3.885	1319.38485	0	1319.38485
	Total	192.65	65425.87	61569.64	126995.51		374.222625	127159.6825	110599.0257	246758.7082
	Contingency 3%		0	3809.87	3809.87					7402.761245
	Labour Welfare 4%		0	5079.82	5079.82					9870.348327
	Grand Total	192.65	65425.87	61569.64	135885.19		374.222625	127159.6825	110599.0257	264031.8177

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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	835.44	404	1239.44	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1 casualty replacement 20%	4.77855	1622.8422	784.77	2407.6122
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	105.28	404.04	509.32	Item No. 2 20% instead of 10%	0.602175	204.5064	784.77	989.2764
3	Planting for causality replacement 222 seedlings (2.00 M.D. per 100 seedlings)	4.44	1507.87	0	1507.87	Item No. 3 20% instead of 10%	8.6247	2929.037475	0	2929.037475
4	2 seedlings and 1 soil working, with fertilizer application 2.5 M.D. per 100 seedlings at M.S. Rs. 0.82 per seedling	27.77	9430.97	911.02	10341.99	Item No. 4	53.943225	18319.65923	1769.65635	20089.31558
5	Watering 1111 seedlings in November, December, January and June 1 time each and in February to May 2 times each total 12 times 5 litre per seedlings, replacing 10% plastic can / matka @Rs.25/- each replacing 111 cans / matka, supplying water @Rs.0.50/- per litre and watering 150 seedlings per M.D.	88.88	30184.54	36105	66289.54	Item No. 5	172.6494	58633.46895	70133.9625	128767.4315
6	Watch and ward 12 months -1 watcher per 10.00 ha	36.5	12395.77	0=	12395.77	Item No. 6	70.90125	24078.78323	0	24078.78323
7	Fire tracing	2	679.22	0	679.22	Item No. 8	3.885	1319.38485	0	1319.38485
	Total	162.36	55139.08	37824.06	92963.14		315.3843	107107.6823	73473.15885	180580.8412
	Contingency 3%		0	2788.89	2788.89					5417.425235
	Labour Welfare 4%		0	3718.53	3718.53					7223.238647
	Grand Total	162.36	55139.08	37824.06	99470.56		315.3843	107107.6823	73473.15885	193221.5001
D. Third Year Operations										
1	1 seedling and 1 soil working (1.50 M.D per 100 seedlings) applying fertilizer @ Rs.0.82 per plant	16.67	5661.3	911.02	6572.32	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	32.381475	10997.07525	1769.65635	12766.7316
2	Watch and ward 12 months 1 watcher per 10.00 ha	44.48	15105.85	16680	31785.85	Item No. 2	86.4024	29343.11362	32400.9	61744.01363
3	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	12395.77	Item No. 3	70.90125	24078.78323	0	24078.78323
4	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 5	3.885	1319.38485	48.5625	1367.94735
5	Fire tracing	2	679.22	0	679.22	Item No. 6	3.885	1319.38485	0	1319.38485
	Total	101.65	34521.36	17616.02	52137.38		197.455125	67057.7418	34219.11885	101276.8607
	Contingency 3%		0	1564.12	1564.12					3038.30582
	Labour Welfare 4%		0	2085.5	2085.5					4051.074426
	Grand Total	101.65	34521.36	17616.02	55787		197.455125	67057.7418	34219.11885	108366.2409
E. Fourth Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	12395.77	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	70.90125	24078.78323	0	24078.78323
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 2	3.885	1319.38485	48.5625	1367.94735
3	Fire tracing	2	679.22	0	679.22	Item No. 3	3.885	1319.38485	0	1319.38485
	Total	40.5	13754.21	25	13779.21		78.67125	26717.55293	48.5625	26766.11543
	Contingency 3%		0	413.38	413.38					802.9834628
	Labour Welfare 4%		0	551.17	551.17					1070.644617
	Grand Total	40.5	13754.21	25	14743.75		78.67125	26717.55293	48.5625	28639.7435
F. Fifth Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	12395.77	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	70.90125	24078.78323	0	24078.78323
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 2	3.885	1319.38485	48.5625	1367.94735
3	Fire tracing	2	679.22	0	679.22	Item No. 3	3.885	1319.38485	0	1319.38485
	Total	40.5	13754.21	25	13779.21		78.67125	26717.55293	48.5625	26766.11543
	Contingency 3%		0	413.38	413.38					802.9834628
	Labour Welfare 4%		0	551.17	551.17					1070.644617
	Grand Total	40.5	13754.21	25	14743.75		78.67125	26717.55293	48.5625	28639.7435
G. Sixth Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	12395.77	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	70.90125	24078.78323	0	24078.78323
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 2	3.885	1319.38485	48.5625	1367.94735
3	Fire tracing	2	679.22	0	679.22	Item No. 3	3.885	1319.38485	0	1319.38485
	Total	40.5	13754.21	25	13779.21		78.67125	26717.55293	48.5625	26766.11543
	Contingency 3%		0	413.38	413.38					802.9834628
	Labour Welfare 4%		0	551.17	551.17					1070.644617
	Grand Total	40.5	13754.21	25	14743.75		78.67125	26717.55293	48.5625	28639.7435
H. Seventh Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	12395.77	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	70.90125	24078.78323	0	24078.78323
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 2	3.885	1319.38485	48.5625	1367.94735
3	Fire tracing	2	679.22	0	679.22	Item No. 3	3.885	1319.38485	0	1319.38485
	Total	40.5	13754.21	25	13779.21		78.67125	26717.55293	48.5625	26766.11543
	Contingency 3%		0	413.38	413.38					802.9834628
	Labour Welfare 4%		0	551.17	551.17					1070.644617
	Grand Total	40.5	13754.21	25	14743.75		78.67125	26717.55293	48.5625	28639.7435
I. Eighth Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	12395.77	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	70.90125	24078.78323	0	24078.78323
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 2	3.885	1319.38485	48.5625	1367.94735
3	Fire tracing	2	679.22	0	679.22	Item No. 3	3.885	1319.38485	0	1319.38485
	Total	40.5	13754.21	25	13779.21		78.67125	26717.55293	48.5625	26766.11543
	Contingency 3%		0	413.38	413.38					802.9834628
	Labour Welfare 4%		0	551.17	551.17					1070.644617
	Grand Total	40.5	13754.21	25	14743.75		78.67125	26717.55293	48.5625	28639.7435
J. Ninth Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	12395.77	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	70.90125	24078.78323	0	24078.78323
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 2	3.885	1319.38485	48.5625	1367.94735
3	Fire tracing	2	679.22	0	679.22	Item No. 3	3.885	1319.38485	0	1319.38485
	Total	40.5	13754.21	25	13779.21		78.67125	26717.55293	48.5625	26766.11543
	Contingency 3%		0	413.38	413.38					802.9834628
	Labour Welfare 4%		0	551.17	551.17					1070.644617
	Grand Total	40.5	13754.21	25	14743.75		78.67125	26717.55293	48.5625	28639.7435

2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 2		3.885	1319.38485	48.5625	1367.94735
						Item No. 3					
3	Fire tracing	2	679.22	0	679.22	Item No. 3		3.885	1319.38485	0	1319.38485
						Item No. 3					
3	Fire tracing	40.5	13754.21	25	13779.21	Item No. 3		78.67125	26717.55293	48.5625	26766.11543
						Item No. 3					
	Contingency 3%		0	413.38	413.38	Item No. 3					802.9834628
						Item No. 3					
	Labour Welfare 4%		0	551.17	551.17	Item No. 3					1070.644617
						Item No. 3					
	Grand Total	40.5	13754.21	25	14743.75	Item No. 3		78.67125	26717.55293	48.5625	28639.7435
						Item No. 3					
J. Ninth Year Operations											
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	12395.77	Letter Dt. 07/03/2018		70.90125	24078.78323	0	24078.78323
						Irrigated & fencing Plantation Model no. 1 Item No. 1					
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 2		3.885	1319.38485	48.5625	1367.94735
						Item No. 2					
3	Fire tracing	2	679.22	0	679.22	Item No. 3		3.885	1319.38485	0	1319.38485
						Item No. 3					
	Total	40.5	13754.21	25	13779.21	Item No. 3		78.67125	26717.55293	48.5625	26766.11543
						Item No. 3					
	Contingency 3%		0	413.38	413.38	Item No. 3					802.9834628
						Item No. 3					
	Labour Welfare 4%		0	551.17	551.17	Item No. 3					1070.644617
						Item No. 3					
	Grand Total	40.5	13754.21	25	14743.75	Item No. 3		78.67125	26717.55293	48.5625	28639.7435
						Item No. 3					
K. Tenth Year Operations											
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	12395.77	Letter Dt. 07/03/2018		70.90125	24078.78323	0	24078.78323
						Irrigated & fencing Plantation Model no. 1 Item No. 1					
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	679.22	25	704.22	Item No. 2		3.885	1319.38485	48.5625	1367.94735
						Item No. 2					
3	Fire tracing	2	679.22	0	679.22	Item No. 3		3.885	1319.38485	0	1319.38485
						Item No. 3					
	Total	40.5	13754.21	25	13779.21	Item No. 3		78.67125	26717.55293	48.5625	26766.11543
						Item No. 3					
	Contingency 3%		0	413.38	413.38	Item No. 3					802.9834628
						Item No. 3					
	Labour Welfare 4%		0	551.17	551.17	Item No. 3					1070.644617
						Item No. 3					
	Grand Total	40.5	13754.21	25	14743.75	Item No. 3		78.67125	26717.55293	48.5625	28639.7435
						Item No. 3					
Grand Total											

Abstract for Model No.5

ABSTRACT FOR PROJECT WORK											
S. N.	Year of operation	(Amount in Rupees)									
		Man days	Wages	Material supply	Total	Other expenses	Total amount	Man days	Wages	Material supply	Total
For 1.9425 ha.											
1	Pre Monsoon works	167.97	57044.29	193263.83	250308	17521.57	267829.69	326.281725	110808.5333	375414.9898	520259.1697
2	First Year Operations	192.65	65425.87	61569.64	126996	8889.69	135885.19	374.222625	127159.6825	119599.0257	264031.8177
3	Second Year Operations	162.36	55139.08	37824.06	92963	4507.42	99470.56	315.3843	107107.6823	73473.15885	193221.5001
4	Third Year Operations	101.65	34321.36	17616.02	52137	3649.62	55787	197.455125	67057.7418	34219.11885	108366.2409
5	Fourth Year Operations	40.5	13754.21	25	13779	964.54	14743.75	78.67125	26717.55293	48.5625	28639.7435
6	Fifth Year Operations	40.5	13754.21	25	13779	964.54	14743.75	78.67125	26717.55293	48.5625	28639.7435
7	Sixth Year Operations	40.5	13754.21	25	13779	964.54	14743.75	78.67125	26717.55293	48.5625	28639.7435
8	Seventh Year Operations	40.5	13754.21	25	13779	964.54	14743.75	78.67125	26717.55293	48.5625	28639.7435
9	Eighth Year Operations	40.5	13754.21	25	13779	964.54	14743.75	78.67125	26717.55293	48.5625	28639.7435
10	Ninth Year Operations	40.5	13754.21	25	13779	964.54	14743.75	78.67125	26717.55293	48.5625	28639.7435
11	Tenth Year Operations	40.5	13754.21	25	13779	964.54	14743.75	78.67125	26717.55293	48.5625	28639.7435
Total		908.13	308410.03	310448.55	618859	43320.1	662178.68	1764.042525	599156.5104	603046.2307	1286356.933
Cost per plant Rs 596.02											

Note:-

- Rates of chain linked fencing derived from SSR-2017-18 with addition for area difference and transportation lead.
- Plantation M.D. and M.S. component derived from rate structure as approved by PCCF (HoFF) M.S. vide letter No.Desk-1/EGS/CR-10/2282/2017-18/Nagpur, Dated 07/03/2018.

(Sreelakshmi A.)
Deputy Conservator of Forests,
Pune Forest Division, Pune

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