

Model Rate Structure for Compensatory Afforestation

Model No. 5.

Fencing and Irrigated Plantations

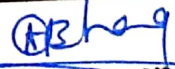
Model rate structure for plantation of mixed tree species having rainfall less than 800 mm and medium quality, medium drained soil.

Spacement - 3m x 3m
Size of Pits - 0.45 x 0.45 x 0.45m
- 1111 per ha
Wage rate Rs 377.5 per day
No. of Seedlings

Sr.No	Particulars of works	Man days	Wages	Material supply	Total (Rs per Ha)	Sanction Letter Dt. / Model No. / Item No.	For	1.00	Factors	
A. Pre Monsoon Works PPO/PYO							Man days	Wages	Material supply	Total (Rs. Per Ha.)
1	(a) Survey and demarcation	1	377.5	91	468.5	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1a	1.00	377.50	91.00	468.50
	(b) Preparation of treatment map (100 m x 50 m grid)	1	377.5	91	468.5	Item No. 1b	1.00	377.50	91.00	468.50
	(c) Digging trial pits of size 0.30x0.30x0.60 m corner of Grid	0.4	151	0	151	Item No. 1c	0.40	151.00	0.00	151.00
	(d) Fixing 60cm x 0.05cm x 12cm cement pillars upto 30cm deep in corner of Grid, painting with Grid No. etc complete (3 pillars, Rs 75/- for each pillar)	0	0	225	225	Item No. 1d	0.00	0.00	225.00	225.00
	(e) Clearing of bushes and preparation of site (As per requirement)	10	3775	91	3866	Item No. 1e	10.00	3775.00	91.00	3866.00
2	Soil and moisture conservation works including collection of rubbles from areas upto 30 m etc	31	11702.5	0	11702.5	Item No. 2	31.00	11702.50	0.00	11702.50
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 imbal/remote area (by tender process.) (Rs.1494-149-149=1792/- per Rmt (1.60 Rmt height with G.I Chain link size 50mmx50m, 8 gauge thick and fixed 75mm above ground level complete as per SSR	0	0	182865.6	182865.6	As per SSR rates 201718 Item No. 1744	0.00	0.00	182865.60	182865.60
4	Alignment of pits at 3m x 3m spacement	2.78	1049.45	49.77	1099.22	Item No. 4	2.78	1049.45	49.77	1099.22
5	Digging of pits of size 0.45 x 0.45 x 0.45 m (1111 pits per ha) 6.60 MD per 100 pits. Note :- As per local conditions provision for mechanized digging can be made.	73.33	27682.075	0	27682.075	Item No. 5	73.33	27682.08	0.00	27682.08
6	Construction of 5.00 Rmt wide Inspection	1	377.5	0	377.5	Item No. 6	1.00	377.50	0.00	377.50
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 MD.) per 100 plants	0.75	283.125	25	308.125	Item No. 7	0.75	283.13	25.00	308.13
8	Providing and fixing (4 feet x 3 feet) information board each per site	0	0	5000	5000	Item No. 8	0.00	0.00	5000.00	5000.00
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	17633.025	4825.46	22458.485	Item No. 9 20% Casualty replacement in place of 10%	46.71	17633.03	4825.46	22458.49
Total		167.97	63408.675	193263.83	256672.51		167.97	63408.68	193263.83	256672.51
Contingency 3%				7700.1752	7700.1752			0.00	7700.18	7700.18
Labour Welfare 4%				10266.9	10266.9			0.00	10266.90	10266.90
Grand		167.97	63408.675	17967.075	274639.58		167.97	63408.68	17967.08	274639.58
B. First Year Operations										
1	Part Nursery cost for maintenance of 1333 seedling per ha Rs. 3.77 per seedling (Wages Rs.2.69, M & S Rs. 0.81)	14.8	5587	1079.73	6666.73	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1 casualty replacement 20%	14.80	5587.00	1079.73	6666.73
2	Refilling of pits by good quality soil including application of single super phosphate (1.66 MD per 100 pits)	18.44	6961.1	1944.25	8905.35	Item No. 2	18.44	6961.10	1944.25	8905.35
3	Transportation of 1333 seedlings from Nursery to plantation site including loading & unloading (0.14 MD. per 100 seedlings & M.S. Rs.1.82 Per seedlings)	1.87	705.925	2426	3131.925	Item No. 3 10% Extra Plants to be transported	1.87	705.93	2426.00	3131.93
4	Planting of 1111 seedlings (1.0 MD per 100 seedlings)	11.11	4194.025	0	4194.025	Item No. 4	11.11	4194.03	0.00	4194.03
5	3 seedlings (1 Rmt circular) and 2 soil workings (4.00 MD per 100 seedlings) fertilizer application Rs.0.82 per seedling	44.44	16776.1	911.02	17687.12	Item No. 5	44.44	16776.10	911.02	17687.12

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 at @Rs.0.05 per litre and wages for watering 1 M.D. for 150 seedlings	59.25			76761.875	Item No. 7	59.25	22366.88	54395.00	76761.88
7	Casualty replacement (20% 222 Seedlings per ha.) (2 M.D. per 100 seedlings)	4.44	1676.1	0	1676.1	Item No. 6 20% instead of 10%	4.44	1676.10	0.00	1676.10
8	Part Nursery cost for casualty 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	2933.175	803.64	3736.815	Item No. 8 20% instead of 10%	7.77	2933.18	803.64	3736.82
9	Watch and ward (10 months - 1 watcher per 10 ha)	27.38	10335.95	0	10335.95	Item No. 9	27.38	10335.95	0.00	10335.95
10	Soil working for naturally grower plants and singling (1.15 M.D. per 100 plants)	1.15	434.125	10	444.125	Item No. 10	1.15	434.13	10.00	444.13
11	Fire tracing	2	755	0	755	Item No. 12	2.00	755.00	0.00	755.00
Total		192.65	72725.375	61569.64	134295.02		192.65	72725.38	61569.64	134295.02
Contingency 3%			0	4028.8505	4028.8505			0.00	4028.85	4028.85
Labour Welfare 4%			0	5371.8006	5371.8006			0.00	5371.80	5371.80
Grand Total		192.65	72725.375	9400.6511	143695.67		192.65	72725.38	9400.65	143695.67
C. Second Year Operations										
1	Part nursery cost for seedlings for casualty replacement (222 seedlings per ha) labour rate @ Rs.3.77 and M.S. Rs.1.82 per seedlings	2.46		404	1332.65	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1 casualty	2.46	928.65	404.00	1332.65
2	Transportation of 222 seedlings for casualty 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		404.04	521.065	Item No. 2, 20% instead of 10%	0.31	117.03	404.04	521.07
3	Planting for casualty replacement 222 seedlings (2.00 M.D. per 100 seedlings)	4.44	1676.1	0	1676.1	Item No. 3, 20% instead of 10%	4.44	1676.10	0.00	1676.10
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	10483.175	911.02	11394.195	Item No. 4	27.77	10483.18	911.02	11394.20
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		36105	69657.2	Item No. 5	88.88	33552.20	36105.00	69657.20
6	Watch and ward 12 months -1 watcher per 10.00 ha	36.5	13778.75	0	13778.75	Item No. 6	36.50	13778.75	0.00	13778.75
7	Fire tracing	2	755	0	755	Item No. 8	2.00	755.00	0.00	755.00
Total		162.36	61290.9	37824.06	99114.96		162.36	61290.90	37824.06	99114.96
Contingency 3%			0	2973.45	2973.45			0.00	2973.45	2973.45
Labour Welfare 4%			0	3964.60	3964.60			0.00	3964.60	3964.60
Grand Total		162.36	61290.9	6938.05	106053.01		162.36	61290.90	6938.05	106053.01
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	6292.925	911.02	7203.945	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	16.67	6292.93	911.02	7203.95
2	Watering 556 seedlings in November, December, January and June 1 time each and February to May 2 times each total 12 times per seedlings 5 litre, water supply @Rs.0.50/- litre and watering 150 seedlings per M.D.	44.48	16791.2	16680	33471.2	Item No. 2	44.48	16791.20	16680.00	33471.20
3	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13778.75	0	13778.75	Item No. 3	36.50	13778.75	0.00	13778.75
4	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	755	25	780	Item No. 5	2.00	755.00	25.00	780.00
5	Fire tracing	2	755	0	755	Item No. 6	2.00	755.00	0.00	755.00
Total		101.65	38372.88	17616.02	55988.90		101.65	38372.88	17616.02	55988.90
Contingency 3%			0	1679.6669	1679.67			0	1679.67	1679.67
Labour Welfare 4%			0	2239.5558	2239.56			0	2239.56	2239.56
Grand Total		101.65	38372.88	3919.22	59908.12		101.65	38372.88	3919.22	59908.12
E. Fourth Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13778.75	0	13778.75	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13778.75	0.00	13778.75
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	755	25	780	Item No. 2	2.00	755.00	25.00	780.00
3	Fire tracing	2	755	0	755	Item No. 3	2.00	755.00	0.00	755.00
Total		40.5	15288.75	25.00	15313.75		40.5	15288.75	25.00	15313.75
Contingency 3%			0	459.41	459.41			0	459.41	459.41
Labour Welfare 4%			0	612.55	612.55			0	612.55	612.55

Grand Total						40.5	15288.75	1071.96	16385.71		40.5	15288.75	1071.96	16385.71
F. Fifth Year Operations														
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13778.75	0	13778.75	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13778.75	0.00	13778.75				
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	755	25	780	Item No. 2	2.00	755.00	25.00	780.00				
3	Fire tracing	2	755	0	755	Item No. 3	2.00	755.00	0.00	755.00				
Total		40.5	15288.75	25.00	15313.75		40.5	15288.75	25.00	15313.75				
Contingency 3%			0	459.41	459.41			0	459.41	459.41				
Labour Welfare 4%			0	612.55	612.55			0	612.55	612.55				
Grand Total		40.5	15288.75	1071.96	16385.71		40.5	15288.75	1071.96	16385.71				
G. Sixth Year Operations														
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13778.75	0	13778.75	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13778.75	0.00	13778.75				
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	755	25	780	Item No. 2	2.00	755.00	25.00	780.00				
3	Fire tracing	2	755	0	755	Item No. 3	2.00	755.00	0.00	755.00				
Total		40.5	15288.75	25.00	15313.75		40.5	15288.75	25.00	15313.75				
Contingency 3%			0	459.41	459.41			0	459.41	459.41				
Labour Welfare 4%			0	612.55	612.55			0	612.55	612.55				
Grand Total		40.5	15288.75	1071.96	16385.71		40.5	15288.75	1071.96	16385.71				
H. Seventh Year Operations														
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13778.75	0	13778.75	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13778.75	0.00	13778.75				
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	755	25	780	Item No. 2	2.00	755.00	25.00	780.00				
3	Fire tracing	2	755	0	755	Item No. 3	2.00	755.00	0.00	755.00				
Total		40.5	15288.75	25.00	15313.75		40.5	15288.75	25.00	15313.75				
Contingency 3%			0	459.41	459.41			0	459.41	459.41				
Labour Welfare 4%			0	612.55	612.55			0	612.55	612.55				
Grand Total		40.5	15288.75	1071.96	16385.71		40.5	15288.75	1071.96	16385.71				
I. Eighth Year Operations														
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13778.75	0	13778.75	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13778.75	0.00	13778.75				
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	755	25	780	Item No. 2	2.00	755.00	25.00	780.00				
3	Fire tracing	2	755	0	755	Item No. 3	2.00	755.00	0.00	755.00				
Total		40.5	15288.75	25.00	15313.75		40.5	15288.75	25.00	15313.75				
Contingency 3%			0	459.41	459.41			0	459.41	459.41				
Labour Welfare 4%			0	612.55	612.55			0	612.55	612.55				
Grand Total		40.5	15288.75	1071.96	16385.71		40.5	15288.75	1071.96	16385.71				
J. Ninth Year Operations														
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13778.75	0	13778.75	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13778.75	0.00	13778.75				
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	755	25	780	Item No. 2	2.00	755.00	25.00	780.00				
3	Fire tracing	2	755	0	755	Item No. 3	2.00	755.00	0.00	755.00				
Total		40.5	15288.75	25.00	15313.75		40.5	15288.75	25.00	15313.75				
Contingency 3%			0	459.41	459.41			0	459.41	459.41				
Labour Welfare 4%			0	612.55	612.55			0	612.55	612.55				
Grand Total		40.5	15288.75	1071.96	16385.71		40.5	15288.75	1071.96	16385.71				
K. Tenth Year Operations														
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13778.75	0	13778.75	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13778.75	0.00	13778.75				
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	755	25	780	Item No. 2	2.00	755.00	25.00	780.00				
3	Fire tracing	2	755	0	755	Item No. 3	2.00	755.00	0.00	755.00				
Total		40.5	15288.75	25.00	15313.75		40.5	15288.75	25.00	15313.75				
Contingency 3%			0	459.41	459.41			0	459.41	459.41				
Labour Welfare 4%			0	612.55	612.55			0	612.55	612.55				
Grand Total		40.5	15288.75	1071.96	16385.71		40.5	15288.75	1071.96	16385.71				


 Sub Divisional Forest Officer
 Bhor

Abstract for Model No.5

S.No.	Year of operation	Man days	Wages	Material supply	Total	Other expenses	Total amount
1	Pre Monsoon works	167.97	63408.68	193263.83	256672.51	17967.08	274639.58
2	First Year Operations	192.65	72725.38	61569.64	134295.02	9400.65	143695.67
3	Second Year Operations	162.36	61290.9	37824.06	99114.96	6938.05	106053.01
4	Third Year Operations	101.65	38372.875	17616.02	55988.895	3919.22	59908.12
5	Fourth Year Operations	40.5	15288.75	25	15313.75	1071.96	16385.71
6	Fifth Year Operations	40.5	15288.75	25	15313.75	1071.96	16385.71
7	Sixth Year Operations	40.5	15288.75	25	15313.75	1071.96	16385.71
8	Seventh Year Operations	40.5	15288.75	25	15313.75	1071.96	16385.71
9	Eighth Year Operations	40.5	15288.75	25	15313.75	1071.96	16385.71
10	Nineth Year Operations	40.5	15288.75	25	15313.75	1071.96	16385.71
11	Tenth Year Operations	40.5	15288.75	25	15313.75	1071.96	16385.71
Total		908.13	342819.08	310448.55	653267.63	45728.73	698996.36

Cost per plant Rs.

629.16

Note:-

1. Rates of chain linked fencing derived from SSR-2017-18 with addition for area difference and transportation
2. 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.

Amol Shankar Khavale

(A.G.Bhong)
Sub Divisional Forest Officer
Bhor