

29

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.

Spacing - 3m x 3m

Size of Pits - 0.45 x 0.45 x 0.45m

- 1111 per

No. of Seedlings ha Wage rate Rs 371.15 per day

Sr.No	Particulars of works	Man days	Wages	Material supply	Total (Rs. per Ha.)	Sanction Letter Dt. / Model No. / Item No.	For	1.00	Hactors	Total
							Man days	Wages	Material supply	(Rs. Per Ha.)
A. Pre Monsoon Works PPO/PYO										
1	(a) Survey and demarcation	1	371.15	91	462.15	Letter Dt. 07/03/2018 Irrigated & fencing Plantation	1.00	371.15	91.00	462.15
	(b) Preparation of treatment map (100 m x 50 m grid)	1	371.15	91	462.15	Item No. 1b	1.00	371.15	91.00	462.15
	(c) Digging trial pits of size 0.30x0.30x0.60 in corner of Grid.	0.4	148.46	0	148.46	Item No. 1c	0.40	148.46	0.00	148.46
	(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	Item No. 1d	0.00	0.00	225.00	225.00
	(e) Clearing of bushes and preparation of site	10	3711.5	91	3802.5	Item No. 1e	10.00	3711.50	91.00	3802.50
2	Soil and moisture conservation works including collection of rubbles from areas upto 30 m etc	31	11505.65	0	11505.65	Item No. 2	31.00	11505.65	0.00	11505.65
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 height with G.I. Chain link size 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	0.00	0.00	182865.60	182865.60
4	Alignment of pits at 3m x 3m spacing. 1111	2.78	1031.797	49.77	1081.567	Item No. 4	2.78	1031.80	49.77	1081.57
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	27216.43	0	27216.4295	Item No. 5	73.33	27216.43	0.00	27216.43
6	Construction of 5.00 Rmt wide Inspection Path	1	371.15	0	371.15	Item No. 6	1.00	371.15	0.00	371.15
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	278.3625	25	303.3625	Item No. 7	0.75	278.36	25.00	303.36
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	17336.417	4825.46	22161.8765	Item No. 9 20% Casualty replacement in place of 10%	46.71	17336.42	4825.46	22161.88
	Total	167.97	62342.066	193263.83	255605.896		167.97	62342.07	193263.83	255605.90
	Contingency 3%		0	7668.1769	7668.17687			0.00	7668.18	7668.18
	Labour Welfare 4%		0	10224.236	10224.2358			0.00	10224.24	10224.24
Gra		167.97	62342.066	17892.413	273498.308		167.97	62342.07	17892.41	273498.31
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	5493.02	1079.73	6572.75	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1 casualty replacement 20%	14.80	5493.02	1079.73	6572.75
2	Refilling of pits by good quality soil including application of single super phosphate (1.66 MD per 100 pits)	18.44	6844.006	1944.25	8788.256	Item No. 2	18.44	6844.01	1944.25	8788.26
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	694.0505	2426	3120.0505	Item No. 3 10% Extra Plants to be transported	1.87	694.05	2426.00	3120.05
4	Planting of 1111 seedlings (1.0 M.D per 100 seedlings)	11.11	4123.4765	0	4123.4765	Item No. 4	11.11	4123.48	0.00	4123.48
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	16493.906	911.02	17404.926	Item No. 5	44.44	16493.91	911.02	17404.93
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	59.25	21990.638	54395	76385.6375	Item No. 7	59.25	21990.64	54395.00	76385.64

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	2883.8355	803.64	3687.4755	Item No. 8 20% instead of 10%	7.77	2883.84	803.64	3687.48
9	Watch and ward (10 months – 1 watcher per 10 ha)	27.38	10162.087	0	10162.087	Item No. 9	27.38	10162.09	0.00	10162.09
10	Soil working for naturally grower plants and	1.15	426.8225	10	436.8225	Item No. 10	1.15	426.82	10.00	436.82
11	Fire tracing	2	742.3	0	742.3	Item No. 12	2.00	742.30	0.00	742.30
Total		192.65	71502.048	61569.64	133071.688		192.65	71502.05	61569.64	133071.69
Contingency 3%			0	3992.1506	3992.15063			0.00	3992.15	3992.15
Labour Welfare 4%			0	5322.8675	5322.8675			0.00	5322.87	5322.87
Grand Total		192.65	71502.048	9315.0181	142386.706		192.65	71502.05	9315.02	142386.71

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	913.029	404	1317.029	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1 casualty replacement 20%	2.46	913.03	404.00	1317.03
2	Transportation of 222 seedlings for causality	0.31	115.0565	404.04	519.0965	Item No. 2, 20% instead of	0.31	115.06	404.04	519.10
3	Planting for casualty replacement 222	4.44	1647.906	0	1647.906	Item No. 3, 20% instade of	4.44	1647.91	0.00	1647.91
4	2 weedings and 1 soil working, with fertilizer application 2.5 M.D. per 100 seedlings at M.S.	27.77	10306.836	911.02	11217.8555	Item No. 4	27.77	10306.84	911.02	11217.86
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	32987.812	36105	69092.812	Item No. 5	88.88	32987.81	36105.00	69092.81
6	Watch and ward 12 months -1 watcher per 10.00 ha	36.5	13546.975	0	13546.975	Item No. 6	36.50	13546.98	0.00	13546.98
7	Fire tracing	2	742.3	0	742.3	Item No. 8	2.00	742.30	0.00	742.30
Total		162.36	60259.914	37824.06	98083.974		162.36	60259.91	37824.06	98083.97
Contingency 3%			0	2942.52	2942.52			0.00	2942.52	2942.52
Labour Welfare 4%			0	3923.36	3923.36			0.00	3923.36	3923.36
Grand Total		162.36	60259.914	6865.88	104949.852		162.36	60259.91	6865.88	104949.85

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	6187.0705	911.02	7098.0905	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	16.67	6187.07	911.02	7098.09
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	16508.752	16680	33188.752	Item No. 2	44.48	16508.75	16680.00	33188.75
3	Watch and ward 12 months 1 watcher per	36.5	13546.975	0	13546.975	Item No. 3	36.50	13546.98	0.00	13546.98
4	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	742.3	25	767.3	Item No. 5	2.00	742.30	25.00	767.30
5	Fire tracing	2	742.3	0	742.3	Item No. 6	2.00	742.30	0.00	742.30
Total		101.65	37727.40	17616.02	55343.42		101.65	37727.40	17616.02	55343.42
Contingency 3%			0	1660.30253	1660.30			0	1660.30	1660.30
Labour Welfare 4%			0	2213.7367	2213.74			0	2213.74	2213.74
Grand Total		101.65	37727.40	3874.04	59217.46		101.65	37727.40	3874.04	59217.46

E. Fourth Year Operations

1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13546.975	0	13546.975	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13546.98	0.00	13546.98
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	742.3	25	767.3	Item No. 2	2.00	742.30	25.00	767.30
3	Fire tracing	2	742.3	0	742.3	Item No. 3	2.00	742.30	0.00	742.30
Total		40.5	15031.58	25.00	15056.58		40.5	15031.58	25.00	15056.58
Contingency 3%			0	451.70	451.70			0	451.70	451.70
Labour Welfare 4%			0	602.26	602.26			0	602.26	602.26
Grand Total		40.5	15031.575	1053.96	16110.54		40.5	15031.575	1053.96	16110.54

F. Fifth Year Operations

1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13546.975	0	13546.975	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13546.98	0.00	13546.98
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	742.3	25	767.3	Item No. 2	2.00	742.30	25.00	767.30
3	Fire tracing	2	742.3	0	742.3	Item No. 3	2.00	742.30	0.00	742.30
Total		40.5	15031.58	25.00	15056.58		40.5	15031.58	25.00	15056.58
Contingency 3%			0	451.70	451.70			0	451.70	451.70
Labour Welfare 4%			0	602.26	602.26			0	602.26	602.26
Grand Total		40.5	15031.575	1053.96	16110.54		40.5	15031.575	1053.96	16110.54

G. Sixth Year Operations

1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13546.975	0	13546.975	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13546.98	0.00	13546.98
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register	2	742.3	25	767.3	Item No. 2	2.00	742.30	25.00	767.30

Grand Total		40.5	15031.575	1053.96	16110.54		40.5	15031.575	1053.96	16110.54
H. Seventh Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13546.98	0	13546.98	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13546.98	0.00	13546.98
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	742.3	25	767.3	Item No. 2	2.00	742.30	25.00	767.30
3	Fire tracing	2	742.3	0	742.3	Item No. 3	2.00	742.30	0.00	742.30
Total		40.5	15031.58	25.00	15056.58		40.5	15031.58	25.00	15056.58
Contingency 3%			0	451.70	451.70			0	451.70	451.70
Labour Welfare 4%			0	602.26	602.26			0	602.26	602.26
Grand Total		40.5	15031.575	1053.96	16110.54		40.5	15031.575	1053.96	16110.54
I. Eighth Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13546.98	0	13546.98	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13546.98	0.00	13546.98
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	742.3	25	767.3	Item No. 2	2.00	742.30	25.00	767.30
3	Fire tracing	2	742.3	0	742.3	Item No. 3	2.00	742.30	0.00	742.30
Total		40.5	15031.58	25.00	15056.58		40.5	15031.58	25.00	15056.58
Contingency 3%			0	451.70	451.70			0	451.70	451.70
Labour Welfare 4%			0	602.26	602.26			0	602.26	602.26
Grand Total		40.5	15031.575	1053.96	16110.54		40.5	15031.575	1053.96	16110.54
J. Ninth Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13546.98	0	13546.98	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13546.98	0.00	13546.98
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	742.3	25	767.3	Item No. 2	2.00	742.30	25.00	767.30
3	Fire tracing	2	742.3	0	742.3	Item No. 3	2.00	742.30	0.00	742.30
Total		40.5	15031.58	25.00	15056.58		40.5	15031.58	25.00	15056.58
Contingency 3%			0	451.70	451.70			0	451.70	451.70
Labour Welfare 4%			0	602.26	602.26			0	602.26	602.26
Grand Total		40.5	15031.575	1053.96	16110.54		40.5	15031.575	1053.96	16110.54
K. Tenth Year Operations										
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	13546.98	0	13546.98	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	13546.98	0.00	13546.98
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	742.3	25	767.3	Item No. 2	2.00	742.30	25.00	767.30
3	Fire tracing	2	742.3	0	742.3	Item No. 3	2.00	742.30	0.00	742.30
Total		40.5	15031.58	25.00	15056.58		40.5	15031.58	25.00	15056.58
Contingency 3%			0	451.70	451.70			0	451.70	451.70
Labour Welfare 4%			0	602.26	602.26			0	602.26	602.26
Grand Total		40.5	15031.575	1053.96	16110.54		40.5	15031.575	1053.96	16110.54

(Jayaramgowda R.)
Deputy Conservator of Forests,
Junnar Forest Division, Junnar

o/c
J.S.

Abstract for Model No.5

S. N.	Year of operation	Man days	Wages	Material supply	Total	Other expenses	Total amount
1	Pre Monsoon works	167.97	62342.07	193263.83	255605.90	17892.41	273498.31
2	First Year Operations	192.65	71502.05	61569.64	133071.69	9315.02	142386.71
3	Second Year Operations	162.36	60259.914	37824.06	98083.974	6865.88	104949.85
4	Third Year Operations	101.65	37727.3975	17616.02	55343.4175	3874.04	59217.46
5	Fourth Year Operations	40.5	15031.575	25	15056.575	1053.96	16110.54
6	Fifth Year Operations	40.5	15031.575	25	15056.575	1053.96	16110.54
7	Sixth Year Operations	40.5	15031.575	25	15056.575	1053.96	16110.54
8	Seventh Year Operations	40.5	15031.575	25	15056.575	1053.96	16110.54
9	Eighth Year Operations	40.5	15031.575	25	15056.575	1053.96	16110.54
10	Nineth Year Operations	40.5	15031.575	25	15056.575	1053.96	16110.54
11	Tenth Year Operations	40.5	15031.575	25	15056.575	1053.96	16110.54
Total		908.13	337052.45	310448.55	647501.00	45325.07	692826.07

Cost per plant Rs. 623.61

Note:-

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

(Jayaramgowda R.)
Deputy Conservator of Forests,
Junnar Forest Division, Junnar