

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

VILLAGE

POH

Size of Pits

- 0.45 x 0.45 x 0.45m

TALUKA

NAGPUR

(RURAL)

No. of Seedlings

- 1111

Rs.339.61

BUTEBORI

per ha

Wage Rate-

wage rate

per day.

RANGE

SURVEY NO.

63

(Amount in Rs.)

Sr.No	Particulars of works	Man days	Wages	Material supply	Total (Rs. Per	Sanction Letter Dt. /	For 5.539 Sha			
A. Pre Monsoon Works PPO/PYO							Man days	Wages	Material supply	Total (Rs. Per Ha.)
1	(a) Survey and demarcation	1	339.61	91	430.61	Letter Dt. 07/03/2018	5.5395	1881.27	504.0945	2385.364095
	(b) Preparation of treatment map (100 m x 50 m grid)	1	339.61	91	430.61	Item No. 1b	5.5395	1881.27	504.0945	2385.364095
	(c) Digging trial pits of size 0.30x0.30x0.60 in corner of Grid.	0.4	135.84	0	135.84	Item No. 1c	2.2158	752.4857	0	752.48568
	(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 pillars)	0	0	225	225	Item No. 1d	0	0	1246.3875	1246.3875
	(e) Clearing of bushes and preparation of site (As per requirement)	10	3396.1	91	3487.1	Item No. 1e	55.395	18812.7	504.0945	19316.79045
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	171.7245	58319.36	0	58319.35745
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	182866	182865.6	As per SSR rates 201718 Item No. 1744	0	0	1012983.99	1012983.991
4	Alignment of pits at 3m x 3m spacement. 1111 pits per Ha (0.25 per 100 pits and M&S @ Rs.	2.78	944.12	49.77	993.89	Item No. 4	15.39981	5229.953	275.700915	5505.653655
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	406.21154	137953.5	0	137953.4922
6	Construction of 5.00 Rmt wide Inspection Path I.M.D. per 100 Rmt	1	339.61	0	339.61	Item No. 6	5.5395	1881.27	0	1881.269595
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	4.154625	1410.966	138.4875	1549.453545
8	Providing and fixing (4 feet x 3 feet) information board each per site	0	0	5000	5000	Item No. 8	0	0	27697.5	27697.5
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	258.75005	87874.09	26730.6357	114604.7213
Total		167.97	57044.3	193264	250308		930.46982	315996.8	1070584.99	1386581.831
Contingency 3%			0	7509.23	7509.24		0	0		41597.45492
Labour Welfare 4%			0	10012.3	10012.3		0	0		55463.27323
Grand Total		167.97	57044.3	193264	267830		930.46982	315996.8	1070584.99	1483642.559
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	5062.23		1079.73	Letter Dt. 07/03/2018 Irrigated & fencing	81.9846	28042.22	5981.16434	34023.38742
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	Item No. 2	102.14838	34690.62	10770.1729	45460.79307

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	Item No. 3 10% Extra Plants to be transported	10.358865	3517.97	13 438.827	16956.79727
4	Planting of 1111 seedlings (1.0 M.D per 100 seedlings)	11.11	3773.07	0	Item No. 4	61.543845	20900.92	0	20900.92127
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	Item No. 5	246.17538	83603.63	504 6.59529	88650.22496
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	20121.89	54395	Item No. 7	328.21538	111465.2	301 321.103	412786.3122
7	Casualty replacement (20% 222 Seedlings per ha.) (2 M.D. per 100 seedlings)	4.44	1507.87	0	Item No. 6 20% instead	24.59538	8352.846	0	8352.845865
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	Item No. 8 20% instead of 10%	43.041915	14617.47	445 1.76378	19069.2302
9	Watch and ward (10 months – 1 watcher per 10 ha)	27.38	9298.52	0	Item No. 9	151.67151	51509.15	0	51509.15154
10	Soil working for naturally grower plants and singling (1.15 M.D. per 100 plants)	1.15	390.55	10	Item No. 10	6.370425	2163.452	55.395	2218.846725
11	Fire tracing	2	679.22	0	Item No. 12	11.079	3762.539	0	3762.53919
Total		192.65	65425.87	61569.6		1067.185	362626	341 065.02	703691.0496
Contingency 3%			0	3809.87					21110.73149
Labour Welfare 4%			0	5079.82					28147.64199
Grand Total		192.65	65425.87	61569.6		1067.1847	362626	341 065.021	752949.4231
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	Letter Dt. 07/03/2018 Irrigated & fencing	13.62717	4627.92	22 37.958	6865.87788
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	Item No. 2 20% instead of 10%	1.717245	583.1986	22 37.958	2821.15656
3	Planting for casualty replacement 222 seedlings (2.00 M.D. per 100 seedlings)	4.44	1507.87	0	Item No. 3 20% instead	24.59538	8352.846	0	8352.845865
4	2 weedings 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	Item No. 4	153.83192	52242.86	5046.59529	57289.45361
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	Item No. 5	492.35076	167207.3	200003.648	367210.9068
6	Watch and ward 12 months -1 watcher per 10.00 ha	36.5	12395.77	0	Item No. 6	202.19175	68666.37	0	68666.36792
7	Fire tracing	2	679.22	0	Item No. 8	11.079	3762.539	0	3762.53919
Total		162.36	55139.08	37824.1		899.39322	305443	209526.159	514969.1478
Contingency 3%			0	2788.89					15449.07444
Labour Welfare 4%			0	3718.53					20598.76591
Grand Total		162.36	55139.08	37824.1		899.39322	305443	209526.159	551016.9882
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	5661.3	911.02	Letter Dt. 07/03/2018 Irrigated &	92.343465	31360.77	5046.59529	36407.36664
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	15105.85	16680	Item No. 2	246.39696	83678.86	92398.86	176077.7161

3	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	Item No. 3	202.19175	68666.37	0	68666.36792
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	Item No. 5	11.079	3762.539	138.84875	3901.02669
5	Fire tracing	2	679.22	0	Item No. 6	11.079	3762.539	0	3762.53919
Total		101.65	34521.36	17616.02		563.09018	191231.1	97583.9428	288815.0165
Contingency 3%			0	1564.12					8664.450495
Labour Welfare 4%			0	2085.5					11552.60066
Grand Total		101.65	34521.36	17616.02		563.09018	191231.1	97583.9428	309032.0677
E. Fourth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	Letter Dt. 07/03/2018 Irrigated &	202.19175	68666.37	0	68666.36792
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	Item No. 2	11.079	3762.539	138.84875	3901.02669
3	Fire tracing	2	679.22	0	Item No. 3	11.079	3762.539	0	3762.53919
Total		40.5	13754.21	25		224.34975	76191.45	138.84875	76329.9338
Contingency 3%			0	413.38					2289.898014
Labour Welfare 4%			0	551.17					3053.197352
Grand Total		40.5	13754.21	25		224.34975	76191.45	138.84875	81673.02916
F. Fifth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	Letter Dt. 07/03/2018 Irrigated &	202.19175	68666.37	0	68666.36792
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	Item No. 2	11.079	3762.539	138.84875	3901.02669
3	Fire tracing	2	679.22	0	Item No. 3	11.079	3762.539	0	3762.53919
Total		40.5	13754.21	25		224.34975	76191.45	138.84875	76329.9338
Contingency 3%			0	413.38					2289.898014
Labour Welfare 4%			0	551.17					3053.197352
Grand Total		40.5	13754.21	25		224.34975	76191.45	138.84875	81673.02916
G. Sixth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	Letter Dt. 07/03/2018 Irrigated &	202.19175	68666.37	0	68666.36792
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	Item No. 2	11.079	3762.539	138.84875	3901.02669
3	Fire tracing	2	679.22	0	Item No. 3	11.079	3762.539	0	3762.53919
Total		40.5	13754.21	25		224.34975	76191.45	138.84875	76329.9338
Contingency 3%			0	413.38					2289.898014
Labour Welfare 4%			0	551.17					3053.197352
Grand Total		40.5	13754.21	25		224.34975	76191.45	138.84875	81673.02916
H. Seventh Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	Letter Dt. 07/03/2018 Irrigated &	202.19175	68666.37	0	68666.36792
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	Item No. 2	11.079	3762.539	138.84875	3901.02669
3	Fire tracing	2	679.22	0	Item No. 3	11.079	3762.539	0	3762.53919
Total		40.5	13754.21	25		224.34975	76191.45	138.84875	76329.9338
Contingency 3%			0	413.38					2289.898014
Labour Welfare 4%			0	551.17					3053.197352
Grand Total		40.5	13754.21	25		224.34975	76191.45	138.84875	81673.02916
I. Eighth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	Letter Dt. 07/03/2018 Irrigated &	202.19175	68666.37	0	68666.36792
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	Item No. 2	11.079	3762.539	138.84875	3901.02669
3	Fire tracing	2	679.22	0	Item No. 3	11.079	3762.539	0	3762.53919
Total		40.5	13754.21	25		224.34975	76191.45	138.84875	76329.9338
Contingency 3%			0	413.38					2289.898014
Labour Welfare 4%			0	551.17					3053.197352
Grand Total		40.5	13754.21	25		224.34975	76191.45	138.84875	81673.02916
J. Ninth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	Letter Dt. 07/03/2018 Irrigated &	202.19175	68666.37	0	68666.36792

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	Item No. 2	11.079	3762.539	138.4875	3901.02669
3	Fire tracing	2	679.22	0	Item No. 3	11.079	3762.539	0	3762.53919
Total		40.5	13754.21	25		224.34975	76191.45	138.4875	76329.9338
Contingency 3%			0	413.38					2289.898014
Labour Welfare 4%			0	551.17					3053.197352
Grand Total		40.5	13754.21	25		224.34975	76191.45	138.4875	81673.02916
K. Tenth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	12395.77	0	Letter Dt. 07/03/2018 Irrigated &	202.19175	68666.37	0	68666.36792
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	Item No. 2	11.079	3762.539	138.4875	3901.02669
3	Fire tracing	2	679.22	0	Item No. 3	11.079	3762.539	0	3762.53919
Total		40.5	13754.21	25		224.34975	76191.45	138.4875	76329.9338
Contingency 3%			0	413.38					2289.898014
Labour Welfare 4%			0	551.17					3053.197352
Grand Total		40.5	13754.21	25		224.34975	76191.45	138.4875	81673.02916

Abstract for Model No.5

(Amount in Rupees)

S. N.	Year of operation	Man days	Wages	Material supply	Other expenses	Man days	Wages	Material supply	Total
For 5.5395 ha.									
1	Pre Monsoon works	167.97	57044.29	193264	17521.57	930.469815	315996.84	1070585	1483642.56
2	First Year Operations	192.65	65425.87	61569.6	8889.69	1067.18468	362626.03	341065	752949.423
3	Second Year Operations	162.36	55139.08	37824.1	6507.42	899.39322	305442.99	209526.2	551016.988
4	Third Year Operations	101.65	34521.36	17616	3649.62	563.090175	191231.07	97583.94	309032.068
5	Fourth Year Operations	40.5	13754.21	25	964.54	224.34975	76191.446	138.4875	81673.0292
6	Fifth Year Operations	40.5	13754.21	25	964.54	224.34975	76191.446	138.4875	81673.0292
7	Sixth Year Operations	40.5	13754.21	25	964.54	224.34975	76191.446	138.4875	81673.0292
8	Seventh Year Operations	40.5	13754.21	25	964.54	224.34975	76191.446	138.4875	81673.0292
9	Eighth Year Operations	40.5	13754.21	25	964.54	224.34975	76191.446	138.4875	81673.0292
10	Ninth Year Operations	40.5	13754.21	25	964.54	224.34975	76191.446	138.4875	81673.0292
11	Tenth Year Operations	40.5	13754.21	25	964.54	224.34975	76191.446	138.4875	81673.0292
Total		908.13	308410	310449	43320.1	5030.58614	1708637.1	1719730	3668352.24

Cost per plant Rs.596.02

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.

20/1/2020

(Dr. Prabh Nath Shukla)
Deputy Conservator of
Nagpur Forest Division,