Enclosure to Principal Chief Conservator of Forest (HoFF), M. S. Nagpur Letter No. Desk-17/CA/Nodal Cell/CR-40/1127/2019-20, Date 04/10/2019

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 **413.69** 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	
	A. Pre Monsoon Works PPO/PYO						Man days	Wages	Material supply	Total (Rs. Per Ha.)
1	(a) Survey and demarcation	1	413.69	91	504.69	Letter Dt. 07/03/2018 Irrigated & fencing Plantation	1.00	413.69	91.00	504.69
	(b) Preparation of treatment map (100 m x 50 m grid)	1	413.69	91	504.69	Item No. 1b	1.00	413.69	91.00	504.69
	(c) Digging trial pits of size 0.30x0.30x0.60 in corner of Grid.	0.4	165.476	0	165.476	Item No. 1c	0.40	165.48	0.00	165.48
	(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 pillrs)	0	0	225	225	Item No. 1d	0.00	0.00	225.00	225.00
	(e) Clearing of bushes and preparation of site	10	4136.9	91	4227.9	Item No. 1e	10.00	4136.90	91.00	4227.90
2	Soil and moisture conservation works including collection of rubbles from areas upto 30 m etc	31	12824.39	0	12824.39	Item No. 2	31.00	12824.39	0.00	12824.39
3	Providing and fixing chain link fencing, 102 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 spacement. 1111	2.78	1150.0582	49.77	1199.8282	Item No. 4	2.78	1150.06	49.77	1199.83
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	30335.888	0	30335.8877	Item No. 5	73.33	30335.89	0.00	30335.89
6	Construction of 5.00 Rmt wide Inspection Path	1	413.69	0	413.69	Item No. 6	1.00	413.69	0.00	413.69
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	310.2675	25	335.2675	Item No. 7	0.75	310.27	25.00	335.27
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	19323.46	4825.46	24148.9199	Item No. 9 20% Casualty replacement in place of 10%	46.71	19323.46	4825.46	24148.92
	Total	167.97	69487.509	193263.83	262751.339		167.97	69487.51	193263.83	262751.34
	Contingency 3%		0	7882.5402	7882.54018			0.00	7882.54	7882.54
	Labour Welfare 4%		0	10510.054	10510.0536			0.00	10510.05	10510.05
Gra		167.97	69487.509	18392.594	281143.933		167.97	69487.51	18392.59	281143.93
	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	6122.612	1079.73	7202.342	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1 casualty replacement 20%	14.80	6122.61	1079.73	7202.34
2	Refilling of pits by good quality soil including application of single super phosphate (1.66 MD per 100 pits)	18.44	7628.4436	1944.25	9572.6936	Item No. 2	18.44	7628.44	1944.25	9572.69
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	773.6003	2426	3199.6003	Item No. 3 10% Extra Plants to be transported	1.87	773.60	2426.00	3199.60
4	Planting of 1111 seedlings (1.0 M.D per 100 seedlings)	11.11	4596.0959	0	4596.0959	Item No. 4	11.11	4596.10	0.00	4596.10
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	18384.384	911.02	19295.4036	Item No. 5	44.44	18384.38	911.02	19295.40
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	24511.133	54395	78906.1325	Item No. 7	59.25	24511.13	54395.00	78906.13
7	Casualty replacement (20% 222 Seedlings per ha.) (2 M.D. per 100 seedlings)	4.44	1836.7836	0	1836.7836	Item No. 6 20% instead of 10%	4.44	1836.78	0.00	1836.78

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	3214.3713	803.64	4018.0113	Item No. 8 20% instead of 10%	7.77	3214.37	803.64	4018.01
9	Watch and ward (10 months – 1 watcher per 10 ha)	27.38	11326.832	0	11326.8322	Item No. 9	27.38	11326.83	0.00	11326.83
10	Soil working for naturally grower plants and	1.15	475.7435	10	485.7435	Item No. 10	1.15	475.74	10.00	485.74
11	Fire tracing	2	827.38	0	827.38	Item No. 12	2.00	827.38	0.00	827.38
	Total	**192.65**	**79697.379**	**61569.64**	**141267.019**		**192.65**	**79697.38**	**61569.64**	**141267.02**
	Contingency 3%		0	4238.0106	4238.01056			0.00	4238.01	4238.01
	Labour Welfare 4%		0	5650.6807	5650.68074			0.00	5650.68	5650.68
	Grand Total	**192.65**	**79697.379**	**9888.6913**	**151155.71**		**192.65**	**79697.38**	**9888.69**	**151155.71**
	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	1017.6774	404	1421.6774	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1 casualty replacement 20%	2.46	1017.68	404.00	1421.68
2	Transportation of 222 seedlings for causality	0.31	128.2439	404.04	532.2839	Item No. 2, 20% instead of	0.31	128.24	404.04	532.28
3	Planting for casualty replacement 222	4.44	1836.7836	0	1836.7836	Item No. 3, 20% instade of	4.44	1836.78	0.00	1836.78
4	2 weedings and 1 soil working, with fertilizer application 2.5 M.D. per 100 seedlings at M.S.	27.77	11488.171	911.02	12399.1913	Item No. 4	27.77	11488.17	911.02	12399.19
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	36768.767	36105	72873.7672	Item No. 5	88.88	36768.77	36105.00	72873.77
6	Watch and ward 12 months -1 watcher per 10.00 ha	36.5	15099.685	0	15099.685	Item No. 6	36.50	15099.69	0.00	15099.69
7	Fire tracing	2	827.38	0	827.38	Item No. 8	2.00	827.38	0.00	827.38
	Total	**162.36**	**67166.708**	**37824.06**	**104990.768**		**162.36**	**67166.71**	**37824.06**	**104990.77**
	Contingency 3%		0	3149.72	3149.72			0.00	3149.72	3149.72
	Labour Welfare 4%		0	4199.63	4199.63			0.00	4199.63	4199.63
	Grand Total	**162.36**	**67166.708**	**7349.35**	**112340.122**		**162.36**	**67166.71**	**7349.35**	**112340.12**
	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	6896.2123	911.02	7807.2323	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	16.67	6896.21	911.02	7807.23
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	18400.931	16680	35080.9312	Item No. 2	44.48	18400.93	16680.00	35080.93
3	Watch and ward 12 months 1 watcher per	36.5	15099.685	0	15099.685	Item No. 3	36.50	15099.69	0.00	15099.69
4	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	827.38	25	852.38	Item No. 5	2.00	827.38	25.00	852.38
5	Fire tracing	2	827.38	0	827.38	Item No. 6	2.00	827.38	0.00	827.38
	Total	**101.65**	**42051.59**	**17616.02**	**59667.61**		**101.65**	**42051.59**	**17616.02**	**59667.61**
	Contingency 3%		0	1790.02826	1790.03			0	1790.03	1790.03
	Labour Welfare 4%		0	2386.70434	2386.70			0	2386.70	2386.70
	Grand Total	**101.65**	**42051.59**	**4176.73**	**63844.34**		**101.65**	**42051.59**	**4176.73**	**63844.34**
	E. Fourth Year Operations									
1	Watch and ward 12 months 1 watcher per 1[illegible] ha	36.5	15099.685	0	15099.685	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	15099.69	0.00	15099.69
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	827.38	25	852.38	Item No. 2	2.00	827.38	25.00	852.38
3	Fire tracing	2	827.38	0	827.38	Item No. 3	2.00	827.38	0.00	827.38
	Total	**40.5**	**16754.45**	**25.00**	**16779.45**		**40.5**	**16754.45**	**25.00**	**16779.45**
	Contingency 3%		0	503.38	503.38			0	503.38	503.38
	Labour Welfare 4%		0	671.18	671.18			0	671.18	671.18
	Grand Total	**40.5**	**16754.445**	**1174.56**	**17954.01**		**40.5**	**16754.445**	**1174.56**	**17954.01**
	F. Fifth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	15099.685	0	15099.685	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	15099.69	0.00	15099.69
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	827.38	25	852.38	Item No. 2	2.00	827.38	25.00	852.38
3	Fire tracing	2	827.38	0	827.38	Item No. 3	2.00	827.38	0.00	827.38
	Total	**40.5**	**16754.45**	**25.00**	**16779.45**		**40.5**	**16754.45**	**25.00**	**16779.45**
	Contingency 3%		0	503.38	503.38			0	503.38	503.38
	Labour Welfare 4%		0	671.18	671.18			0	671.18	671.18
	Grand Total	**40.5**	**16754.445**	**1174.56**	**17954.01**		**40.5**	**16754.445**	**1174.56**	**17954.01**
	G. Sixth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	15099.685	0	15099.685	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	15099.69	0.00	15099.69
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	827.38	25	852.38	Item No. 2	2.00	827.38	25.00	852.38
3	Fire tracing	2	827.38	0	827.38	Item No. 3	2.00	827.38	0.00	827.38
	Total	**40.5**	**16754.45**	**25.00**	**16779.45**		**40.5**	**16754.45**	**25.00**	**16779.45**
	Contingency 3%		0	503.38	503.38			0	503.38	503.38
	Labour Welfare 4%		0	671.18	671.18			0	671.18	671.18

	Grand Total	**40.5**	**16754.445**	**1174.56**	**17954.01**		**40.5**	**16754.445**	**1174.56**	**17954.01**
	H. Seventh Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	15099.69	0	15099.69	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	15099.69	0.00	15099.69
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	827.38	25	852.38	Item No. 2	2.00	827.38	25.00	852.38
3	Fire tracing	2	827.38	0	827.38	Item No. 3	2.00	827.38	0.00	827.38
	Total	**40.5**	**16754.45**	**25.00**	**16779.45**		**40.5**	**16754.45**	**25.00**	**16779.45**
	Contingency 3%		0	503.38	503.38			0	503.38	503.38
	Labour Welfare 4%		0	671.18	671.18			0	671.18	671.18
	Grand Total	**40.5**	**16754.445**	**1174.56**	**17954.01**		**40.5**	**16754.445**	**1174.56**	**17954.01**
	I. Eighth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	15099.69	0	15099.69	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	15099.69	0.00	15099.69
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	827.38	25	852.38	Item No. 2	2.00	827.38	25.00	852.38
3	Fire tracing	2	827.38	0	827.38	Item No. 3	2.00	827.38	0.00	827.38
	Total	**40.5**	**16754.45**	**25.00**	**16779.45**		**40.5**	**16754.45**	**25.00**	**16779.45**
	Contingency 3%		0	503.38	503.38			0	503.38	503.38
	Labour Welfare 4%		0	671.18	671.18			0	671.18	671.18
	Grand Total	**40.5**	**16754.445**	**1174.56**	**17954.01**		**40.5**	**16754.445**	**1174.56**	**17954.01**
	J. Ninth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	15099.69	0	15099.69	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	15099.69	0.00	15099.69
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	827.38	25	852.38	Item No. 2	2.00	827.38	25.00	852.38
3	[illegible] tracing	2	827.38	0	827.38	Item No. 3	2.00	827.38	0.00	827.38
	Total	**40.5**	**16754.45**	**25.00**	**16779.45**		**40.5**	**16754.45**	**25.00**	**16779.45**
	Contingency 3%		0	503.38	503.38			0	503.38	503.38
	Labour Welfare 4%		0	671.18	671.18			0	671.18	671.18
	Grand Total	**40.5**	**16754.445**	**1174.56**	**17954.01**		**40.5**	**16754.445**	**1174.56**	**17954.01**
	K. Tenth Year Operations									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.5	15099.69	0	15099.69	Letter Dt. 07/03/2018 Irrigated & fencing Plantation Model no. 1 Item No. 1	36.50	15099.69	0.00	15099.69
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2	827.38	25	852.38	Item No. 2	2.00	827.38	25.00	852.38
3	Fire tracing	2	827.38	0	827.38	Item No. 3	2.00	827.38	0.00	827.38
	Total	**40.5**	**16754.45**	**25.00**	**16779.45**		**40.5**	**16754.45**	**25.00**	**16779.45**
	Contingency 3%		0	503.38	503.38			0	503.38	503.38
	Labour Welfare 4%		0	671.18	671.18			0	671.18	671.18
	Grand Total	**40.5**	**16754.445**	**1174.56**	**17954.01**		**40.5**	**16754.445**	**1174.56**	**17954.01**

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

o/c

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	69487.51	193263.83	262751.34	18392.59	**281143.93**
2	First Year Operations	192.65	79697.38	61569.64	141267.02	9888.69	**151155.71**
3	Second Year Operations	162.36	67166.7084	37824.06	104990.7684	7349.35	**112340.12**
4	Third Year Operations	101.65	42051.5885	17616.02	59667.6085	4176.73	**63844.34**
5	Fourth Year Operations	40.5	16754.445	25	16779.445	1174.56	**17954.01**
6	Fifth Year Operations	40.5	16754.445	25	16779.445	1174.56	**17954.01**
7	Sixth Year Operations	40.5	16754.445	25	16779.445	1174.56	**17954.01**
8	Seventh Year Operations	40.5	16754.445	25	16779.445	1174.56	**17954.01**
9	Eighth Year Operations	40.5	16754.445	25	16779.445	1174.56	**17954.01**
10	Nineth Year Operations	40.5	16754.445	25	16779.445	1174.56	**17954.01**
11	Tenth Year Operations	40.5	16754.445	25	16779.445	1174.56	**17954.01**
Total		**908.13**	**375684.30**	**310448.55**	**686132.85**	**48029.30**	**734162.15**

Cost per plant Rs. 660.81

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.

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