

YAVATMAL FOREST DIVISION, YAVATMAL

Tahsil : Yavatmal

District : Yavatmal

Encloser to Principal Chief Conservator of Forest (HoFF), M.S. Nagpur Letter No.Desk-17/CA/Nodal Cell/CR-40/1127/2019-20, Date 4.11.2019

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.

Division : Yavatmal

Area of Land :- 1.20

Plantation area : 1.2 Ha.

Range : Yavatmal

Village : Pimpalgaon

Rate : 399.73 /-

Round : Waghapur

No. of Plants : 1111 / ha.

Compartment No. : 488

Beat : Waghapur

Spacement :- 3m x 3m

Size of pits :- 0.45x0.45x0.45m.

No. of Seedlings :- 1111 per Ha.

P.P.O. + P.Y.O.

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Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
A)	Pre Monsoon Works PPO / PYO								
1	a) Survey of demarcation								
	b) Preparation of treatment map (100m x 50m grid)	1.00	399.73	91.00	490.73	1.20	479.68	109.20	588.88
	c) Digging trial pits of size 0.30x0.30x0.60 in corner of Grid.	1.00	399.73	91.00	490.73	1.20	479.68	109.20	588.88
	d) Fixing 60 cm x 0.05 cm x 12 cm cement pillars upto 30cm deep in corner of Grid, painting with Grid No.etc. Complete (3 pillars, Rs.75/- for each pillars.)	0.40	159.89	0.00	159.89	0.48	191.87	0.00	191.87
	e) Clearing of bushes and preparation of site (As per requirement.)	0.00	0.00	225.00	225.00	0.00	0.00	270.00	270.00
2	Soil and moisture conservation works including collection of rubbles from areas upto 30 mtr. Etc.	10.00	3997.30	91.00	4088.30	12.00	4796.76	109.20	4905.96
3	Providing and fixing chain link fencing, 102 Rmt. Per ha. (With one gate + two wickets gates for one site) (Rs.2306/- per Rmt of basic rate + 20% for transportation of ave. Lead (by tender process). (Rs.2306+461=2767) per Rmt. (as per SSR Item No.46.39 for 2021-22) Providing and erecting chainlink fencing 1.6 M. height with G.I. chain link of size 50x50mm, 8 gauge thick and fixed 75 mm above ground level on vertical M.S. Angles of 40x40x6mm size, including excavating pits for foundation and embedded C.C. block of 1:4:8 mix of size 450 x 450 x 670 mm.at 1.75M.c/c with iron bar 16mm dia as holdfast including welding link with angle frame at 30cm c/c with nuts and bolts and horizontal M.S. Angles at top and bottom of 25x25x5mm size and vertical M.S flat 35x5mm and 25x5mm horizontal including crosssup port of 40x40x6mm angles both side at every corner or bend embedded in concrete blocks of 1:4:8 of size 450 x 450 x 670 mm including 3 coats of oil painting etc. complete.	31.00	12391.63	0.00	12391.63	37.20	14869.96	0.00	14869.96
		0.00	0.00	282234.00	282234.00	0.00	0.00	338680.80	338680.80

No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
4	Alignment of pits at 3m x 3 m spacement. 1111 pits per Ha. (0.25 per 100 pits and M&S @ Rs. 2.24 per 50 pits.)	2.78	1111.25	49.77	1161.02	3.34	1333.50	59.72	1393.22
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	29312.20	0.00	29312.20	88.00	35174.64	0.00	35174.64
6	Construction of 5.00 Rmt. Wide Inspection Path 1M.D. Per 100 Rmt.	1.00	399.73	0.00	399.73	1.20	479.68	0.00	479.68
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	299.80	25.00	324.80	0.90	359.76	30.00	389.76
8	Providing and fixing (4 feet x 3 feet) information board each per site.	0.00	0.00	5000.00	5000.00	0.00	0.00	6000.00	6000.00
9	Part Nursery cost of rising 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. 3.63 per plant)	46.71	18671.39	4825.46	23496.85	56.05	22405.67	5790.55	28196.22
	TOTAL :	168	67143	292632	359775	202	80571	351159	431730
	Equipment and contingency charges 3% :				10793				12952
	Labour Welfare charges 4% :				14391				17269
	Grand Total :				384959				461951

[Signature]
Range Forest Officer (T)
Yavatmal

Asst. Conservator of Forest (FLCS & CAMPA)
Yavatmal Division, Yavatmal

Dy. Conservator of Forest
Yavatmal Division, Yavatmal

ESTIMATE FOR FIRST YEAR OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
B)	First Year Operation								
1	Part Nursery cost for maintenance of 1333 seedlings per ha Rs. 3.77 per seedling (Wages Rs. 2.69, M&S Rs.0.81)	14.80	5916.00	1079.73	6995.73	17.76	7099.20	1295.68	8394.88
2	Refilling of pits by good quality soil including application of sinle super phosphate (1.66 MD per 100 pits.	18.44	7371.02	1944.25	9315.27	22.13	8845.23	2333.10	11178.33
3	Transportation of 1333 seedlings from Nursery to Plantation site including loading and unloading (0.14 MD per 100 seedlings and M.S. Rs. 1.82 per seedlings.)	1.87	747.50	2426.00	3173.50	2.24	896.99	2911.20	3808.19
4	Planting of 1111 seedlings (1.00 MD per 100 seedlings.)	11.11	4441.00	0.00	4441.00	13.33	5329.20	0.00	5329.20
5	3 seedlings (1 Rmt. Circular) and 2 soil workings (4.00 M.D per 100 seedlings.) fertilizer application Rs. 0.82 per seedlings.	44.44	17764.00	911.02	18675.02	53.33	21316.80	1093.22	22410.02
6	Watering 1111 seedlings Novermber and December 1 time each, January to March 2 time each per seedlings 5 liter water, purchase of 1111 plastig can of 5 litre / matka @ Rs.25/- each and 100 liter capacity 11 drums @ Rs.400/- each for supplyingg water an dwater supply at @ Rs. 0.05 per liter and wages for watering 1 M.D. for 150 seedlings.)	59.25	23684.00	54395.00	78079.00	71.10	28420.80	65274.00	93694.80
7	Casualty replacement (20% 222 seedlings per Ha.) (2 M.D. Per 100 seedlings.)	4.44	1774.80	0.00	1774.80	5.33	2129.76	0.00	2129.76

	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
	2	3	4	5	6	7	8	9	10
8	Part Nursery cost for maintenance in SYO (222 seedlings per ha.) (wages Rs. 11.90 and material supply Rs.3.62 total Rs. 12.55 per seedlings.)	7.77	3105.90	803.64	3909.54	9.32	3727.08	964.37	4691.45
9	Watch and ward (10 months - 1 watcher per 10 Ha.)	27.38	10944.61	0.00	10944.61	32.86	13133.53	0.00	13133.53
10	Soil workign for naturally grower plants and singling (1.1.5 M.D. Per 100 plants.)	1.15	459.69	10.00	469.69	1.38	551.63	12.00	563.63
11	Fire tracing.	2.00	799.46	0.00	799.46	2.40	959.35	0.00	959.35
	TOTAL :	192.65	77007.98	61569.64	138577.62	231.18	92409.57	73883.57	166293.14
	Equipment and contingency charges 3% :				4157.33				4988.79
	Labour Welfare charges 4% :				5543.10				6651.73
	Grand Total :				148278.05				177933.66

ESTIMATE FOR SECOND YEAR OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
C)	Second Year Operation								
1	Part Nursery cost for seedlings for causality replacement (222 seedling per ha.) labour rate @ Rs. 3.77 and M.S. Rs. 1.82 per seedlings.	2.46	1081.66	404.00	1485.66	2.95	1297.99	484.80	1782.79
2	Transportation of 222 seedlings for causality replacement from nursery to plantation site (including loading an unloading) wages 0.14 M.D. Per 100 seedling and M.S. Rs. 1.82 per seedlings	0.31	136.31	404.04	540.35	0.37	163.57	484.85	648.42
3	Planting for causality replacement 222 seedlings (2.00 M.D. Per 100 seedlings)	4.44	1952.27	0.00	1952.27	5.33	2342.72	0.00	2342.72
4	2 weedings and 1 soil working, with frtilizer application 2.5 M.D. Per 100 seedlings at M.S. Rs. 0.82 per seedling.	27.77	12210.47	911.02	13121.49	33.32	14652.56	1093.22	15745.78
5	Watering 111 seedlings in Novembr, December, January and June 1 time each and 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	39080.54	36105.00	75185.54	106.66	46896.64	43326.00	90222.64
6	Watch and ward 12 months - 1 watcher per 10.00 Ha	36.50	16049.05	0.00	16049.05	43.80	19258.86	0.00	19258.86
7	Fire Trecing.	2.00	879.40	0.00	879.40	2.40	1055.28	0.00	1055.28
8	TOTAL :	162.36	71389.69	37824.06	109213.75	194.83	85667.62	45388.87	131056.49
9	Equipment and contingency charges 3% :				3276.41				3931.69
10	Labour Welfare charges 4% :				4368.55				5242.26
	Grand Total :			116858.71					140230.44

ESTIMATE FOR THIRD YEAR OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
D)	Third Year Operation								
1	1 weeding and 1 soil working (1.50 M.D. Per 100 seedlings) applying fertilizer @ Rs. 0.82 per plant.	16.67	8063.28	911.02	8974.30	20.00	9675.93	1093.22	10769.15
2	Watering 556 seedlings in November, December, January and June 1 time each and February to May 2 times each total 12 time per seedlings 5 litre, water supply @ Rs.0.50/- litre and watering 150 seedlings per M.D.	44.48	21514.98	16680.00	38194.98	53.38	25817.97	20016.00	45833.97
3	Watch and ward 12 months 1 watcher per 10.00 Ha.	36.50	17655.05	0.00	17655.05	43.80	21186.06	0.00	21186.06
4	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October.	2.00	967.40	25.00	992.40	2.40	1160.88	30.00	1190.88
5	Fire tracing	2.00	967.40	0.00	967.40	2.40	1160.88	0.00	1160.88
	TOTAL :	101.65	49168.11	17616.02	66784.13	121.98	59001.72	21139.22	80140.94
6	Equipment and contingency charges 3% :				2003.52				2404.23
7	Labour Welfare charges 4% :				2671.37				3205.64
8	Grand Total :				71459.02				85750.81

ESTIMATE FOR FORTH YEAR OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
E)	Fourth Year Operations								
1	Watch and Ward 12 months 1 watcher per 10.00 Ha.	36.50	19421.65	0.00	19421.65	43.80	23305.98	0.00	23305.98
2	Counting of survival percentage Grid wise and species wise and to Note the same on Register in May and October	2.00	1064.20	25.00	1089.20	2.40	1277.04	30.00	1307.04
3	Fire Tracing.	2.00	1064.20	0.00	1064.20	2.40	1277.04	0.00	1277.04
	TOTAL :	40.50	21550.05	25.00	21575.05	48.60	25860.06	30.00	25890.06
4	Equipment and contingency charges 3% :				647.25				776.70
5	Labour Welfare charges 4% :				863.00				1035.60
6	Grand Total :				23085.30				27702.36

ESTIMATE FOR FIFTH YEAR OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2								
F)	Fifth Year Operations								
1	Watch and Ward 12 months 1 watcher per 10.00 Ha.	3	4	5	6	7	8	9	10
2	Counting of survival percentage Grid wise and species wise and to Note the same on Register in May and October	36.50	21363.45	0.00	21363.45	43.80	25636.14	0.00	25636.14
3	Fire Tracing.	2.00	1170.60	25.00	1195.60	2.40	1404.72	30.00	1434.72
		2.00	1170.60	0.00	1170.60	2.40	1404.72	0.00	1404.72
	TOTAL :	40.50	23704.65	25.00	23729.65	48.60	28445.58	30.00	28475.58
	Equipment and contingency charges 3% :				711.89				854.27
	Labour Welfare charges 4% :				949.19				1139.02
	Grand Total :				25390.73				30468.87

ESTIMATE FOR SIXTH YEAR OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
G)	Sixth Year Operations								
1	Watch and Ward 12 months 1 watcher per 10.00 Ha.	36.50	23498.70	0.00	23498.70	43.80	28198.44	0.00	28198.44
2	Counting of survival percentage Grid wise and species wise and to Note the same on Register in May and October	2.00	1287.60	25.00	1312.60	2.40	1545.12	30.00	1575.12
3	Fire Tracing.	2.00	1287.60	0.00	1287.60	2.40	1545.12	0.00	1545.12
	TOTAL :	40.50	26073.90	25.00	26098.90	48.60	31288.68	30.00	31318.68
	Equipment and contingency charges 3% :								939.56
	Labour Welfare charges 4% :								1252.75
	Grand Total :								33510.99

ESTIMATE FOR SEVENTH YEAR OF OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
H)	Seventh Year Operations								
1	Watch and Ward 12 months 1 watcher per 10.00 Ha.	36.50	25849.30	0.00	25849.30	43.80	31019.16	0.00	31019.16
2	Counting of survival percentage Grid wise and species wise and to Note the same on Register in May and October	2.00	1416.40	25.00	1441.40	2.40	1699.68	30.00	1729.68
3	Fire Tracing.	2.00	1416.40	0.00	1416.40	2.40	1699.68	0.00	1699.68
	TOTAL :	40.50	28682.10	25.00	28707.10	48.60	34418.52	30.00	34448.52
	Equipment and contingency charges 3% :				861.21				1033.46
	Labour Welfare charges 4% :				1148.28				1377.94
	Grand Total :				30716.59				36859.92

ESTIMATE FOR EIGHT YEAR OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
H)	Eight Year Operations								
1	Watch and Ward 12 months 1 watcher per 10.00 Ha.	36.50	28433.50	0.00	28433.50	43.80	34120.20	0.00	34120.20
2	Counting of survival percentage Grid wise and species wise and to Note the same on Register in May and October	2.00	1558.00	25.00	1583.00	2.40	1869.60	30.00	1899.60
3	Fire Tracing.	2.00	1558.00	0.00	1558.00	2.40	1869.60	0.00	1869.60
	TOTAL :	40.50	31549.50	25.00	31574.50	48.60	37859.40	30.00	37889.40
	Equipment and contingency charges 3% :				947.24				1136.68
	Labour Welfare charges 4% :				1262.98				1515.58
	Grand Total :				33784.72				40541.66

ESTIMATE FOR NINE YEAR OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
H)	Nine Year Operations								
1	Watch and Ward 12 months 1 watcher per 10.00 Ha.	36.50	31276.85	0.00	31276.85	43.80	37532.22	0.00	37532.22
2	Counting of survival percentage Grid wise and species wise and to Note the same on Register in May and October	2.00	1713.80	25.00	1738.80	2.40	2056.56	30.00	2086.56
3	Fire Tracing.	2.00	1713.80	0.00	1713.80	2.40	2056.56	0.00	2056.56
	TOTAL :	40.50	34704.45	25.00	34729.45	48.60	41645.34	30.00	41675.34
	Equipment and contingency charges 3% :				1041.88				1250.26
	Labour Welfare charges 4% :				1389.18				1667.01
	Grand Total :				37160.51				44592.61

ESTIMATE FOR TEN YEAR OPERATION

Sr. No.	Particular of Work	Mandays	Wages	Material Supply	Total	Mandays	Wages	Material supply	Total
1	2	3	4	5	6	7	8	9	10
H)	Ten Year Operations								
1	Watch and Ward 12 months 1 watcher per 10.00 Ha.	36.50	34404.90	0.00	34404.90	43.80	41285.88	0.00	41285.88
2	Counting of survival percentage Grid wise and species wise and to Note the same on Register in May and October	2.00	1885.20	25.00	1910.20	2.40	2262.24	30.00	2292.24
3	Fire Tracing.	2.00	1885.20	0.00	1885.20	2.40	2262.24	0.00	2262.24
	TOTAL :	40.50	38175.30	25.00	38200.30	48.60	45810.36	30.00	45840.36
	Equipment and contingency charges 3% :				1146.01				1375.21
	Labour Welfare charges 4% :				1528.01				1833.61
	Grand Total :				40874.32				49049.18

ABSTRACT

Sr. No.	Particular of Work	Mandays	Rate per mandays	Wages	Material Supply	Total	Area in Ha.	Total Mandays	Total Wages	Total M.S.	Grand Total
1	2	3	4	5	6	7	8	9	10	11	12
1	P.P.O. + P.Y.O.	167.97	399.73	67142.65	292632.23	359774.88	1.20	201.56	80571.18	351158.68	431729.86
2	First Year Operation	192.65	399.73	77007.98	61569.64	138577.62	1.20	231.18	92409.58	73883.57	166293.15
3	Second Year Operation	162.36	439.70	71389.69	37824.06	109213.75	1.20	194.83	85667.63	45388.87	131056.50
4	Third Year Operation	101.65	483.70	49168.11	17616.02	66784.13	1.20	121.98	59001.73	21139.22	80140.95
5	Fourth Year Operation	40.50	532.10	21550.05	25.00	21575.05	1.20	48.60	25860.06	30.00	25890.06
6	Fifth Year Operation	40.50	585.30	23704.65	25.00	23729.65	1.20	48.60	28445.58	30.00	28475.58
7	Sixth Year Operation	40.50	643.80	26073.90	25.00	26098.90	1.20	48.60	31288.68	30.00	31318.68
8	Seventh Year Operation	40.50	708.20	28682.10	25.00	28707.10	1.20	48.60	34418.52	30.00	34448.52
9	Eighth Year Operation	40.50	779.00	31549.50	25.00	31574.50	1.20	48.60	37859.40	30.00	37889.40
10	Ninth Year Operation	40.50	856.90	34704.45	25.00	34729.45	1.20	48.60	41645.34	30.00	41675.34
11	Ten Year Operation	40.50	942.60	38175.30	25.00	38200.30	1.20	48.60	45810.36	30.00	45840.36
	TOTAL :	908.13		469148.38	409816.95	878965.33		1089.75	562978.06	491780.34	1054758.40
						26368.96					31642.75
						35158.61					42190.34
						940492.90					1128591.49
	Rupees eleven lakhs twenty-eight thousand five hundred ninety-one and paise nil only										Say Rs. 1128591

Note :-

- 1) Rate of chain linked fencing derivd from SSR 2021-2022 with additiona 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, Date 7.3.2018 with 10% exccalation in M.D. Rate and M.S. Rate from Third Yr to Ten Year.

Range Forest Officer (T)
Yavatmal

Dy. Conservator of Forest
Yavatmal Division, Yavatmal