Encloser 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 Comyensatorv Afforestation

Model No.3

Trench Plantations

Model rate structure for plantation on mixed tree species in area with rainfall 800 m to 1200 m and medium quality, medium drained soil with depth above 30cm.

Trench Size	2.00 x 0.60 x 0.45 mtr	Wage Rate
400 Staggered Trench	2 seedling per trench (800 seedling)	Rs. 400.00 Per Day
400 Continuous Trench	distance between seedling 1 m (800 seedling)	

Sr. No	Particulars of works	Man days	Wages	Material supply	Total	Total ha.	Total Amount Requred
A. Pre Monsoon Works (PPO/PYO)		1.00 ha.				13.00 ha	
1	a) Survey and demarcation	1.00	400.00	91.00	491.00	13.00	6383.00
	b) Preparation of treatment map (100 in x 50 in grid)	1.00	400.00	91.00	491.00	13.00	6383.00
	c) Digging trial pits of size 0.30 x 0.30 x 0.60 corner of Grid.	0.40	160.00	0.00	160.00	13.00	2080.00
	d) Fixing 60cm x 0.05cm x 12cm cement pillars up to 30cm deep in corner of Grid painting with Grid No. etc completed (3 pillars Rs. 75/- for each pillars)	0.00	0.00	225.00	225.00	13.00	2925.00
	e) Clearing of bushes and preparation of site (As per requirement)	10.00	4000.00	0.00	4000.00	13.00	52000.00
2	Soil and moisture conservation works including collection of rubbles from areas upto 30 m etc	31.00	12400.00	0.00	12400.00	13.00	161200.00
3	Providing and fixing chain link fancing. 102 Rmt per ha (With one gate + two wikets gates for one side) (Rs.1494/- per Rmt of basic rate + 20% for transpotation of ave. lead plus 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 500mmx50m. 8 gauge thick and fixed 75 mm above ground level complete as per SSR item No. 1744 for 2017.18)	0.00	0.00	1.00	6500000	2600.00	6500000
4	Alignments of pits at 2 x 0.60 x 0.45 400 continuous + 400 staggered total 800 trenches @ 1M.D. Per trench and Rs. 14.60 per 100 trench M.S.	8.00	3200.00	116.80	3316.80	13.00	43118.40
5	Digging of trenches 2 x 0.60 x 0.45 400 continuous + 400 staggered trenches 27 M.D per 100 trench.	216.00	86400.00	0.00	86400.00	13.00	1123200.00
6	Construction of 5.00 Rmt wide Inspection Path 1MD per 100 Rmt.	1.00	400.00	0.00	400.00	13.00	5200.00
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	300.00	25.00	325.00	13.00	4225.00
8	Providing and fixing (4 feet x 3 feet) information board each per site.	0.00	0.00	5000.00	5000.00		5000.00

Sr. No	Particulars of works	Man days	Wages	Material supply	Total	Total ha.	Total Amount Requred
9	Part Nursery cost for raising 1920 seedlings per ha (including 20% casuality replacement) in polygons of size 12.50 x 25.00 cm (Wages Rs.11.90 and M & S Rs.3.62 per plant)	67.28	26912.00	6950.40	33862.40	13.00	440211.20
	Total	**336.43**	**134572.00**	**12500.20**	**6647071.20**		**8351925.60**
	Contingency 3%						**250557.77**
	Labour Welfare 4%						**334077.02**
	Grand Total	**336.43**	**134572.00**	**12500.20**	**6647071.20**		**8936560.39**

B. First Year Operations		1.00 ha.					
1	Part nursery cost for maintenance of 1920 seedlings per ha (Wages 3.77, M & S Rs. 0.81)	21.31	9376.40	155.20	9531.60	13.00	123910.80
2	Refilling of trenches by good quality soil including application of single super and fertilizer @ 1.75 per seedling phosphate (15 M.D per 100 trenches)	120.00	52800.00	2800.00	55600.00	13.00	722800.00
3	Transportation of 1920 seedlings from Nursery to plantation site including loading and unloading wages (0.14 M.D per 100 seadling and M.S Rs.1.82 per seadling)	2.69	1183.60	3494.40	4678.00	13.00	60814.00
4	Planting of 1600 seedlings (1.0 M.D per 100 seedlings)	16.00	7040.00	0.00	7040.00	13.00	91520.00
5	3 seedling (1 Rmt circular) and 2 soil workings (4.00 M.D per 100 seedlings) fertilizer application Rs.0.82 per seedling	64.00	28160.00	1312.00	29472.00	13.00	383136.00
6	Causality replacement (20% 320 seedlings per ha) (2 M.D per 100 seedling)	6.40	2560.00	0.00	2560.00	13.00	33280.00
7	Part Nursery cost for casuality replacement in SYO (320 seedlings per ha.) (wages Rs. 8.93 and material supply Rs.3.52 total Rs.12.55 per seedling.)	8.41	3700.40	1158.40	4858.80	13.00	63164.40
8	Watch and ward 9 months- 1 watcher per 10 ha)	23.40	10296.00	0.00	10296.00	13.00	133848.00
9	Fire tracing	2.00	880.00	0.00	880.00	13.00	11440.00
	Total	**264.21**	**115996.40**	**8920.00**	**124916.40**		**1623913.20**
	Contingency 3%				3747.49		48717.40
	Labour Welfare 4%				4996.66		64956.53
	Total	**264.21**	**115996.40**	**8920.00**	**133660.55**		**1737587.12**

Sr. No	Particulars of works	Man days	Wages	Material supply	Total	Total ha.	Total Amount Requred
C. Second **Year Operations**		1.00 ha.					
1	Part nursery cost for seedlings for causality replacement (320 seedlings per ha) labour rate @ Rs. 3.77 and M.S Rs. 1.82 per seedlings	3.55	1718.20	582.40	2300.60	13.00	29907.80
2	Transportation of 320 seedlings for casuality replacement from Nursery to plantation site (including loading & unloading) wages 0.14 M.D per 100 seedlings & M.S Rs.1.82 per seedlings	0.45	217.80	582.40	800.20	13.00	10402.60
3	Planting for casuality replacement 320 seedling (2.00 M.D per 100 seedlings)	6.40	3097.60	0.00	3097.60	13.00	40268.80
4	2 weedings and 1 soil working, with fertilizer application at 2.5 M.D per 100 seedling at M.S. Rs. 0.82 per seedlings	40.00	19360.00	1312.00	20672.00	13.00	268736.00
5	Watch and ward (9 months- 1 watcher per 10 ha)	31.20	15100.80	0.00	15100.80	13.00	15100.80
6	Fire tracing	2.00	968.00	0.00	968.00	13.00	12584.00
	Total	**83.60**	**40462.40**	**2476.80**	**42939.20**		**377000.00**
	Contingency 3%				1288.18		11310.00
	Labour Welfare 4%				1717.57		15080.00
	Grand Total	**83.60**	**40462.40**	**2476.80**	**45944.94**		**403390.00**

D. Third **Year Operations**							
1	1 weeding and I soil working (1.50 M.D per 100 seedlings) applying fertilizer @ Rs. 0.82 per plant	24.00	12777.60	1312.00	14089.60	13.00	183164.80
2	Watch and ward (9 months- 1 watcher per 10 ha)	31.20	16610.88	0.00	16610.88	13.00	215941.44
3	Counting of survival percentage grid wise and species wise and to note the same on register in May and Octomber	0.50	266.20	0.00	266.20	13.00	3460.60
4	Fire tracing	2.00	1064.80	0.00	1064.80	13.00	13842.40
	Total	**57.70**	**30719.48**	**1312.00**	**32031.48**		**416409.24**
	Contingency 3%				960.94		12492.28
	Labour Welfare 4%				1281.26		16656.37
	Total	**57.70**	**30719.48**	**1312.00**	**34273.68**		**445557.89**

Sr. No	Particulars of works	Man days	Wages	Material supply	Total	Total ha.	Total Amount Requred
E. Fourt Year Operations		1.00 ha.					
1	Watch and ward (9 months- 1 watcher per 10 ha)	31.20	18271.97	0.00	18271.97	13.00	237535.58
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and Octomber	0.50	292.82	25.00	317.82	13.00	4131.66
3	Fire tracing	2.00	1171.28	0.00	1171.28	13.00	15226.64
	Total	**33.70**	**19736.07**	**25.00**	**19761.07**		**256893.88**
	Contingency 3%				592.83		7706.82
	Labour Welfare 4%				790.44		10275.76
	Grand Total	**33.70**	**19736.07**	**25.00**	**21144.34**		**274876.46**
F. Fifth Year Operations							
1	Watch and ward (9 months- 1 watcher per 10 ha)	31.20	20099.16	0.00	20099.16	13.00	261289.14
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and Octomber	0.50	322.10	25.00	347.10	13.00	4512.33
3	Fire tracing	2.00	1288.41	0.00	1288.41	13.00	16749.30
	Total	**33.70**	**21709.67**	**25.00**	**21734.67**		**282550.77**
	Contingency 3%				652.04		8476.52
	Labour Welfare 4%				869.39		11302.03
	Grand Total	**33.70**	**21709.67**	**25.00**	**23256.10**		**302329.33**
G. Sixth Year Operations							
1	Watch and ward (9 months- 1 watcher per 10 ha)	31.20	22109.08	0.00	22109.08	13.00	287418.06
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and Octomber	0.50	354.31	25.00	379.31	13.00	4931.06
3	Fire tracing	2.00	1417.25	0.00	1417.25	13.00	18424.23
	Total	**33.70**	**23880.64**	**25.00**	**23905.64**		**310773.35**
	Contingency 3%				717.17		9323.20
	Labour Welfare 4%				956.23		12430.93
	Grand Total	**33.70**	**23880.64**	**25.00**	**25579.04**		**332527.48**
H. Seventh Year Operations							
1	Watch and ward (9 months- 1 watcher per 10 ha)	31.20	24319.99	0.00	24319.99	13.00	316159.86
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and Octomber	0.50	389.74	25.00	414.74	13.00	5391.66
3	Fire tracing	2.00	1558.97	0.00	1558.97	13.00	20266.66
	Total	**33.70**	**26268.71**	**25.00**	**26293.71**		**341818.18**
	Contingency 3%				788.81		10254.55
	Labour Welfare 4%				1051.75		13672.73
	Grand Total	**33.70**	**26268.71**	**25.00**	**28134.27**		**365745.46**
I. Eightth Year Operations							
1	Watch and ward (9 months- 1 watcher per 10 ha)	31.20	26751.99	0.00	26751.99	13.00	347775.85
2	Counting of survival percentage grid wise and species wise and to note the same on	0.50	428.72	25.00	453.72	13.00	5898.33
3	Fire tracing	2.00	1714.87	0.00	1714.87	13.00	22293.32
	Total	**33.70**	**28895.58**	**25.00**	**28920.58**		**375967.50**

Sr. No	Particulars of works	Man days	Wages	Material supply	Total	Total ha.	Total Amount Requred
	Contingency 3%				867.62		11279.03
	Labour Welfare 4%				1156.82		15038.70
	Grand Total	**33.70**	**28895.58**	**25.00**	**30945.02**		**402285.23**

J. Ninth Year Operations							
1	Watch and ward (9 months- 1 watcher per 10 ha)	31.20	29427.19	0.00	29427.19	13.00	382553.43
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and Octomber	0.50	471.59	25.00	496.59	13.00	6455.66
3	Fire tracing	2.00	1886.36	0.00	1886.36	13.00	24522.66
	Total	**33.70**	**31785.13**	**25.00**	**31810.13**		**413531.75**
	Contingency 3%				954.30		12405.95
	Labour Welfare 4%				1272.41		16541.27
	Grand Total	**33.70**	**31785.13**	**25.00**	**34036.84**		**442478.98**

K. Tenth Year Operations							
1	Watch and ward (9 months- 1 watcher per 10 ha)	31.20	32369.91	0.00	32369.91	13.00	420808.78
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and Octomber	0.50	518.75	25.00	543.75	13.00	7068.73
3	Fire tracing	2.00	2074.99	0.00	2074.99	13.00	26974.92
	Total	**33.70**	**34963.65**	**25.00**	**34988.65**		**454852.43**
	Contingency 3%				1049.66		13645.57
	Labour Welfare 4%				1399.55		18194.10
	Grand Total	**33.70**	**34963.65**	**25.00**	**37437.85**		**486692.10**

(V.V.Hoshing)
Deputy Conservator of Forest
Jalgaon Forest Division, Jalgaon

Abstract for Model No. 3							
Sr. No	Particulars of works	Man days	Wages	Material supply	Total	Other expenses	Total
1	Pre Monsoon Works	336.43	134572.00	12500.20	6647071.20	584634.79	8936560.39
2	First year opration	264.21	115996.40	8920.00	133660.55	113673.92	1737587.12
3	Second year opration	83.60	40462.40	2476.80	45944.94	26390.00	403390.00
4	Third year opration	57.70	30719.48	1312.00	34273.68	29148.65	445557.89
5	Fourth year opration	33.70	19736.07	25.00	21144.34	19778.55	274876.46
6	Fifth year opration	33.70	21709.67	25.00	23256.10	19778.55	302329.33
7	Sixth year opration	33.70	23880.64	25.00	25579.04	21754.13	332527.48
8	Seventh Year Operations	33.70	26268.71	25.00	28134.27	23927.27	365745.46
9	Eighth year opration	33.70	28895.58	25.00	30945.02	26317.73	402285.23
10	Ninenth year opration	33.70	31785.13	25.00	34036.84	28947.22	442478.98
11	Tennth year opration	33.70	34963.65	25.00	37437.85	31839.67	486692.10
		977.84	**508989.73**	**25384.00**	**7061483.84**	**926190.50**	**14130030.43**

(V.V.Hoshing)

Deputy Conservator of Forest

Jalgaon Forest Division, Jalgaon