

Model Rate Structure for Comyensatorv 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
Size of pits
No. of seedlings

3 x 3 m
0.45 x 0.45 x 0.45 in
1111 per ha

Wage Rate
Rs. 377.50 Per Day

Sr. No	Particulars of works	Man days	Wages	Material supply	Total	Total ha.	Total Amount Required
A. Pre Monsoon Works (PPO/PYO)		1.00 ha.				31.49 ha	
1	a) Survey and demarcation	1.00	377.50	91.00	468.50	31.49	14753.07
	b) Preparation of treatment map (100 in x 50 in grid)	1.00	377.50	91.00	468.50	31.49	14753.07
	c) Digging trial pits of size 0.30 x 0.30 x 0.60 corner of Grid.	0.40	151.00	0.00	151.00	31.49	4754.99
	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	31.49	7085.25
	e) Clearing of bushes and preparation of site (As per requirement)	10.00	3775.00	91.00	3866.00	31.49	121740.34
2	Soil and moisture conservation works including collection of rubbles from areas upto 30 m etc	31.00	11702.50	0.00	11702.50	31.49	368511.73
3	Providing and fixing chain link fencing. 102 Rmt per ha (With one gate + two wickets gates for one side) (Rs.1494/- per Rmt of basic rate + 20% for transportation 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	16000000.00	16000000.00	6400.00	16000000.00
4	Alignments of pits at 3m x 3m spacement 1111 pits per ha (0.25 per 100 pits and M&S @ Rs.2.24 per 50 pits)	2.78	1049.45	49.77	1099.22	31.49	34614.44
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 provosoin for mechanized digging can be made.	73.33	27682.08	0.00	27682.08	31.49	871708.54
6	Construction of 5.00 Rmt wide Inspection Path 1MD per 100 Rmt.	1.00	377.50	0.00	377.50	4.22	1593.05
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	283.13	25.00	308.13	4.22	1300.29
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 Required
9	Part Nursery cost for raising 1333 seedlings per ha (including 20% casualty replacement) in polybag of size 12.50 x 25.00 cm (Wages Rs.11.90 and M & S Rs.3.62 per plant)	46.71	17633.03	4825.46	22458.49	31.49	707217.69
	Total	167.97	63408.68	16010398.23	16073806.91		18153032.44
	Contingency 3%						544590.97
	Labour Welfare 4%						726121.30
	Grand Total	167.97	63408.68	16010398.23	16073806.91		19423744.72

B. First Year Operations

		1.00 ha.					
1	Part nursery cost for maintenance of 1333 seedlings per ha 3.77 per seedling (Wages 2.69 M & S Rs. 0.81)	14.80	6145.70	1079.73	7225.43	31.49	227528.79
2	Refilling of pits by good quality soil including application of single super phosphate (1.66 M.D per 100 pits)	18.44	7657.21	1944.25	9601.46	31.49	302349.98
3	Transportation of 1333 seedlings from Nursery to plantation site including loading and unloading wages (0.14 M.D per 100 seedling and M.S Rs.1.82 per seedling)	1.87	776.52	2426.00	3202.52	31.49	100847.28
4	Planting of 1111 seedlings (1.0 M.D per 100 seedlings)	11.11	4613.43	0.00	4613.43	31.49	145276.83
5	3 seedling (1 Rmt circular) and 2 soil workings (4.00 M.D per 100 seedlings) fertilizer application Rs.0.82 per seedling	44.44	18453.71	911.02	19364.73	31.49	609795.35
6	Watering 1111 seedling November and December 1 time each, January to March 2 times each per seedling 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 for watering 1 M.D for 150 seedling.	59.25	24603.56	54395.00	78998.56	31.49	2487664.73
7	Casualty replacement (20% 222 seedlings per ha) (2 M.D per 100 seedling)	4.44	1843.71	0.00	1843.71	31.49	58058.43
8	Part Nursery cost for casualty replacement in SYO (222 seedlings per ha.) (wages Rs. 11.90 and material supply Rs.3.52 total Rs.12.55 per seedling.)	7.77	3226.49	803.64	4030.13	31.49	126908.87
9	Watch and ward (10 months- 1 watcher per 10 ha)	27.38	11369.55	0.00	11369.55	31.49	127377.12
10	Soil working for naturally grower plants and singling (1.15 M.D per 100 plants)	1.15	477.54	10.00	487.54	31.49	15352.56
11	Fire tracing	2.00	830.50	0.00	830.50	31.49	26152.45
	Total	192.65	79997.91	61569.64	141567.55		4227312.38
	Contingency 3%				4247.03		126819.37
	Labour Welfare 4%				5662.70		169092.50
	Total	192.65	79997.91	61569.64	151477.28		4523224.24

Sr. No.	Particulars of works	Man days	Wages	Material supply	Total	Total ha.	Total Amount Required
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	1123.68	404.00	1527.68	31.49	48106.61
2	Transportation of 222 seedlings for causality replacement from Nursery to plantation site (including loading & unloading) wages 0.14 M.D per 100 seedlings & M.S Rs. 1.82 per seedlings	0.31	141.60	404.04	545.64	31.49	17182.26
3	Planting for causality replacement 222 seedling (2.00 M.D per 100 seedlings)	4.44	2028.10	0.00	2028.10	31.49	63864.97
4	2 weedings and 1 soil working, with fertilizer application 2.5 M.D per 100 seedling at M.S. Rs. 0.82 per seedlings	27.77	12684.78	911.02	13595.80	31.49	428131.76
5	Watering 1111 seedling November and December 1 time each, January to March 2 times each per seedling 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 seedling.	88.88	40598.61	36105.00	76703.61	31.49	2415396.57
6	Watch and ward (12 months- 1 watcher per 10 ha)	36.50	16672.47	0.00	16672.47	0.00	140088.00
7	Fire tracing	2.00	913.56	0.00	913.56	31.49	28768.00
	Total	162.36	74162.80	37824.06	111986.86		3141538.17
	Contingency 3%				3359.61		94246.14
	Labour Welfare 4%				4479.47		125661.53
	Grand Total	162.36	74162.80	37824.06	119825.94		3361445.84

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	8376.01	911.02	9287.03	31.49	292448.52
2	Watring 556 seedling in November, December, January and June 1 time each and in February to May 2 time each total 12 times per seedling 5 litre replacing 10% plastic can/ matka water @Rs.0.50/- per litre and watering 150 seedling per M.D	44.48	22349.42	16680	39029.42	31.49	1229036.46
3	Watch and ward (12 months- 1 watcher per 10 ha)	36.50	18339.79	0.00	18339.79	31.49	154128.00
4	Counting of survival percentage grid wise and species wise and to note the same on register in May and October	2.00	1004.92	25.00	1029.92	31.49	32432.18
5	Fire tracing	2.00	1004.92	0.00	1004.92	31.49	31644.93
	Total	101.65	51075.06	17616.02	68691.08		1739690.09
	Contingency 3%				2060.73		52190.70
	Labour Welfare 4%				2747.64		69587.60
	Total	101.65	51075.06	17616.02	73499.45		1861468.40

Particulars of works		Man days	Wages	Material supply	Total	Total ha.	Total Amount Required
Year Operations				1.00 ha.			31.49
1	Watch and ward (12 months- 1 watcher per 10 ha)	36.50	20173.92	0.00	20173.92	31.49	169416.00
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and October	2.00	1105.42	25.00	1130.42	31.49	35596.93
3	Fire tracing	2.00	1105.42	0.00	1105.42	31.49	34809.68
	Total	40.50	22384.76	25.00	22409.76		239822.60
	Contingency 3%				672.29		7194.68
	Labour Welfare 4%				896.39		9592.90
	Grand Total	40.50	22384.76	25.00	23978.44		256610.18

F. Fifth Year Operations

1	Watch and ward (12 months- 1 watcher per 10 ha)	36.50	22191.27	0.00	22191.27	31.49	186264.00
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and October	2.00	1215.96	25.00	1240.96	31.49	39077.83
3	Fire tracing	2.00	1215.96	0.00	1215.96	31.49	38290.58
	Total	40.50	24623.19	25.00	24648.19		263632.41
	Contingency 3%				739.45		7908.97
	Labour Welfare 4%				985.93		10545.30
	Grand Total	40.50	24623.19	25.00	26373.56		282086.68

G. Sixth Year Operations

1	Watch and ward (12 months- 1 watcher per 10 ha)	36.50	24410.47	0.00	24410.47	31.49	204984.00
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and October	2.00	1337.56	25.00	1362.56	31.49	42907.01
3	Fire tracing	2.00	1337.56	0.00	1337.56	31.49	42119.76
	Total	40.50	27085.59	25.00	27110.59		290010.78
	Contingency 3%				813.32		8700.32
	Labour Welfare 4%				1084.42		11600.43
	Grand Total	40.50	27085.59	25.00	29008.33		310311.53

H. Seventh Year Operations

1	Watch and ward (12 months- 1 watcher per 10 ha)	36.50	26851.59	0.00	26851.59	31.49	225576.00
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and October	2.00	1471.32	25.00	1496.32	31.49	47119.12
3	Fire tracing	2.00	1471.32	0.00	1471.32	31.49	46331.87
	Total	40.50	29794.23	25.00	29819.23		319026.98
	Contingency 3%				894.58		9570.81
	Labour Welfare 4%				1192.77		12761.08
	Grand Total	40.50	29794.23	25.00	31906.58		341358.87

I. Eighth Year Operations

1	Watch and ward (12 months- 1 watcher per 10 ha)	36.50	29536.90	0.00	29536.90	31.49	248040.00
2	Counting of survival percentage grid wise and species wise and to note the same on	2.00	1618.46	25.00	1643.46	31.49	51752.56
3	Fire tracing	2.00	1618.46	0.00	1618.46	31.49	50965.31
	Total	40.50	32773.82	25.00	32798.82		350757.86

Particulars of works	Man days	Wages	Material supply	Total	Total ha.	Total Amount Required
Contingency 3%				983.96		10522.74
Labour Welfare 4%				1311.95		14030.31
Grand Total	40.50	32773.82	25.00	35094.73		375310.91

J Ninth Year Operations						
1	Watch and ward (12 months- 1 watcher per 10 ha)	36.50	32490.48	0.00	32490.48	273000.00
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and October	2.00	1780.30	25.00	1805.30	56848.90
3	Fire tracing	2.00	1780.30	0.00	1780.30	56061.65
	Total	40.50	36051.08	25.00	36076.08	385910.54
	Contingency 3%				1082.28	11577.32
	Labour Welfare 4%				1443.04	15436.42
	Grand Total	40.50	36051.08	25.00	38601.40	412924.28

K Tenth Year Operations						
1	Watch and ward (12 months- 1 watcher per 10 ha)	36.50	35739.71	0.00	35739.71	300456.00
2	Counting of survival percentage grid wise and species wise and to note the same on register in May and October	2.00	1958.34	25.00	1983.34	62455.38
3	Fire tracing	2.00	1958.34	0.00	1958.34	61668.13
	Total	40.50	39656.39	25.00	39681.39	424579.50
	Contingency 3%				1190.44	12737.39
	Labour Welfare 4%				1587.26	16983.18
	Grand Total	40.50	39656.39	25.00	42459.08	454300.07

(V.V.Hoshing)

Deputy Conservator of Forest
Jalgaon Forest Division, Jalgaon