

Model No. 3

Model rate structure for plantation of Mixed tree species with rainfall upto 800 mm and medium quality, medium drained soil depth upto 30 cm.

(Aided Natural Regeneration)

Detailed scheme for creation and maintenance of plantation against the proposal of diversion of 1.705 ha. forest land for construction of 400KV D/C (Quad) Mouda-Betul Transmission line project of Power Grid Corporation of India Limited.

Compensatory Afforestation Site :-

Survey No. 47 of Protected Forest Comptt No. 382(PF) of Village Sasgaon, Tal. Kuhl, District Nagpur

Area - 3.416 ha.

Range - North Umred, Round, Makardhokda, Beat Makardhokda.

Spacing - 3.00m x 3.00m

Size of pits - 0.45 x 0.45 x 0.45 m

No. of seedlings - 1111 per ha.

Wage

Rate

Rs.

251.21

per day

Sr. No.	Particulars of works	Expenditure per ha.				Expenditure for 3.416 ha.			
		Man days	Wages	Material supply	Total (Rs. Per Ha.)	Man days	Wages	Material supply	Total (Rs. Per Ha.)
A. Pre Monsoon Works (PPO/PYO)									
1	a. Survey and demarcation	1.00	251.21	50.00	301.21	3.4160	858.13	170.80	1028.93
	b. Preparation of treatment map (100 m 50 m grid)	1.00	251.21	50.00	301.21	3.4160	858.13	170.80	1028.93
	c. Clearing of bushes and preparation of site (As per requirement)	10.00	2512.10	50.00	2562.10	34.1600	8581.33	170.80	8752.13
2	Soil and moisture conservation works includidng collection of rubbles from area upto 30 m etc.	31.00	7787.51	0.00	7787.51	105.8960	26602.13	0.00	26602.13
3	Alignment of 1200 rmt of CCT at 8.00 m spacement) (0.25 M.D per 100 rmt and M&S. Rs. 40 per 100 rmt).	3.00	753.63	96.00	849.63	10.2480	2574.40	327.94	2902.34
4	Digging of CCT of size 60 cm width and 45 cm depth including stacking of soil at down word slope (1200 rmt per ha. - 0.15 per rmt)	183.60	46122.16	0.00	46122.16	627.1776	157553.28	0.00	157553.28
5	Digging of Trench cum mound (TCM) of size 1.90 x 0.60 x 1.00 m along the periphery of plantation area including spreading / stacking the excavated soil as directed in 1 m width and 1 m height. Length 102 Rmt per Ha (127.50 cum per ha.)	82.57	20742.41	50.00	20792.41	282.0591	70856.07	170.80	71026.87
6	Alignment of pits at 3.0 x 3.0 m spacement 1111 pits per ha (Wages 0.13 M.D and MS. Rs. 2.24 per 50 pits)	2.86	726.00	49.77	775.77	9.7698	2454.26	170.01	2624.28

7	Digging of pits of 0.45 x 0.45 x 0.45 m size 1111 pits per ha (6.60 M.D. per 100 pits)	73.33	18421.23	0.00	18421.23	250.4953	62926.92	0.00	62926.92
8	Part nursery cost for raising 1333 seedlings per ha including (20% casualty replacement in polybags of size 12.50 x 25 cm (Wages Rs.	28.63	9704.24	2346.08	12050.32	97.8001	24568.36	8014.21	32582.57
	Total	416.99	107271.70	2691.85	109963.55	1424.44	357833.03	9195.36	367028.39
	Contingency 3%			3298.91	3298.91			11010.85	11010.85
	Labour Welfare 4%			4398.54	4398.54			14681.14	14681.14
	Grand Total	416.99	107271.70	10389.30	117660.99	1424.44	357833.03	34887.35	392720.38

B. First Year Operation

1	Part Nursery cost for maintenance of 1333 seedlings per ha. Rs. 1.55 per seedling (Wages Rs. 1.11 M & S Rs. 0.44)	11.68	2934.13	586.52	3520.65	39.90	10023.00	2003.55	12026.55
2	Refilling of pits with good quality soil a) 1.66 MD per 100 pits b) 20% soil replacement, 20 cum per ha Rs 300 per cum c) Filling 5% farm yard manure in pits 5cum per ha Rs700 per cum	18.44	4632.31	9500.00	14132.31	62.99	15823.98	32452.00	48275.98
3	Transportation of 1333 of seedlings from nursery to plantation site (including loading & unloading) Rs. 0.14 MD per 100 per seedling and MS Rs 1.00 per seedlings.	1.55	389.38	1333.00	1722.38	5.29	1330.11	4553.53	5883.63
4	Plantation of agave suckers in 3 rows on TCM (306 suckers/Hec @ Rs 500 per Kg)	1.00	251.21	981.00	1232.21	3.42	858.13	3351.10	4209.23
5	Sowing of seeds on CCT1200 rmt 5 kg per ha @ Rs 50 per Kg	12.00	3014.52	250.00	3264.52	40.99	10297.60	854.00	11151.60
6	Removal of weeds from CCT (1.20 MD per 100 rmt)	14.40	3617.42	0.00	3617.42	49.19	12357.12	0.00	12357.12
7	Planting of seedling 1111 per ha (1MD per 100 seedling)	19.11	4800.62	0.00	4800.62	65.28	16398.93	0.00	16398.93
8	3 weedings and two soil workings 3.5 MD per 100 seedlings fertilizers application Rs 0.45 per seedling)	38.88	9767.04	500.00	10267.04	132.81	33364.23	1708.00	
9	Casualty replacement (20% 222 seedling per ha) (2 M.D per 100 seedlings)	4.44	1115.37	0.00	1115.37	15.17	3810.11	0.00	
10	Part Nursery Cost for casualty replacement in SYO.(222 seedlings per ha.) wagesRs. 8.80 and material supply RS 1.76 total Rs 10.56 per	7.78	1954.41	390.72	2345.13	26.58	6676.28	1334.70	8010.98
11	Watch and ward (10 months) 1 watcher per 10 ha	30.00	7536.30	0.00	7536.30	102.48	25744.00	0.00	25744.00
12	Fire tracing	2.00	502.42	0.00	502.42	6.83	1716.27	0.00	1716.27
	Total	161.28	40515.15	13541.24	54056.39	550.93	138399.75	46256.88	145774.29
	Contingency 3%		0.00	1621.69	1621.69		0.00	4373.23	4373.23
	Labour Welfare 4%		0.00	2162.26	2162.26		0.00	5830.97	5830.97
	Grand Total	161.28	40515.15	17325.19	57840.34	550.93	138399.75	56461.08	155978.49

C. Second Year Operation

1	Part Nursery cost for seedlings for casualty replacement (222 seedlings per ha)	1.95	489.86	97.67	587.53	6.6612	1673.36	333.64	2007.00
2	Transportation of 222 seedlings for casualty replacement from nursery to plantation site (including loading & unloading) Wages 0.14 M.D & MS Rs 1 per 100 seedlings.	0.31	77.88	222.00	299.88	1.05896	266.02	758.35	1024.37
3	Planting for Casualty replacement (222 seedling per ha) (2 M.D per 100 seedlings)	4.44	1115.37	0.00	1115.37	15.16704	3810.11	0.00	3810.11
4	2 weeding and 1 soil working, with fertilizer application at Rs. 0.45 per seedling	27.77	6976.10	500.00	7476.10	94.86232	23830.36	1708.00	25538.36
5	Watch and ward 12 months 1 watcher 10.00 ha	36.50	9169.17	0.00	9169.17	124.684	31321.87	0.00	31321.87
6	Fire tracing	2.00	502.42	0.00	502.42	6.832	1716.27	0.00	1716.27
	Total	72.97	18330.80	819.67	19150.47	249.27	62617.99	2799.99	65417.98
	Contingency 3%		0.00	574.51	574.51		0.00	1962.54	1962.54
	Labour Welfare 4%		0.00	766.02	766.02		0.00	2616.72	2616.72
	Grand Total	72.97	18330.80	2160.20	20491.00	249.27	62617.99	7379.25	69997.24

D. Third Year Operations

1	One weeding, 1 soil working (1.50MD per 100 seedlings)	16.67	4187.67	0.00	4187.67	56.94472	14305.08	0.00	14305.08
2	Watch and ward 12 months 1 watcher 10.00 ha	36.50	9169.17	0.00	9169.17	124.684	31321.87	0.00	31321.87
3	Fire trenching	2.00	502.42	0.00	502.42	6.832	1716.27	0.00	1716.27
	Total	55.17	13859.26	0.00	13859.26	188.46	47343.22	0.00	47343.22
	Contingency 3%		0.00	415.78	415.78		0.00	1420.30	1420.30
	Labour Welfare 4%		0.00	554.37	554.37		0.00	1893.73	1893.73
	Grand Total	55.17	13859.26	970.15	14829.40	188.46	47343.22	3314.03	50657.24

E. Fourth Year Operations

1	Fire trenching	2.00	502.42	0.00	502.42	6.83	1716.27	0.00	1716.27
2	Watch and ward 12 months 1 watcher 10.00 ha	36.50	9169.17	0.00	9169.17	124.68	31321.87	0.00	31321.87
	Total	38.50	9671.59	0.00	9671.59	131.52	33038.13	0.00	33038.13
	Contingency 3%		0.00	290.15	290.15		0.00	991.14	991.14
	Labour Welfare 4%		0.00	386.86	386.86		0.00	1321.53	1321.53
	Grand Total	38.50	9671.59	677.01	10348.60	131.52	33038.13	2312.67	35350.80

F. Fifth Year Operations

1	Fire trenching	2.00	502.42	0.00	502.42	6.83	1716.27	0.00	1716.27
2	Watch and ward 12 months 1 watcher 10.00 ha	36.50	9169.17	0.00	9169.17	124.68	31321.87	0.00	31321.87
	Total	38.50	9671.59	0.00	9671.59	131.52	33038.13	0.00	33038.13
	Contingency 3%		0.00	290.15	290.15		0.00	991.14	991.14
	Labour Welfare 4%		0.00	386.86	386.86		0.00	1321.53	1321.53
	Grand Total	38.50	9671.59	677.01	10348.60	131.52	33038.13	2312.67	35350.80

G. Sixth Year Operations.

1	Fire trenching	2.00	502.42	0.00	502.42	6.832	1716.27	0.00	1716.27
2	Watch and ward 12 months 1 watcher 10.00 ha	36.50	9169.17	0.00	9169.17	6.832	1716.27	0.00	1716.27
	Total	38.50	9671.59	0.00	9671.59	13.66	3432.53	0.00	3432.53
	Contingency 3%		0.00	290.15	290.15		0.00	102.98	102.98
	Labour Welfare 4%		0.00	386.86	386.86		0.00	137.30	137.30
	Grand Total	38.50	9671.59	677.01	10348.60	13.66	3432.53	240.28	3672.81

H. Seventh Year Operations

1	Fire trenching	2.00	502.42	0.00	502.42	6.832	1716.27	0.00	1716.27
2	Watch and ward 12 months 1 watcher 10.00 ha	36.50	9169.17	0.00	9169.17	124.684	31321.87	0.00	31321.87
	Total	38.50	9671.59	0.00	9671.59	131.52	33038.13	0.00	33038.13
	Contingency 3%		0.00	290.15	290.15		0.00	991.14	991.14
	Labour Welfare 4%		0.00	386.86	386.86		0.00	1321.53	1321.53
	Grand Total	38.50	9671.59	677.01	10348.60	131.52	33038.13	2312.67	35350.80

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Abstract for Model No. 3

(Amount in
Rupees)

Sr. No.	Year of operation	Man days	Wages	Material supply	Total	Man days	Wages	Material supply	Total	Other expenses	Total	Total amt (rounded off)
1	Pre Monsoon works	416.99	107271.70	2691.85	109963.55	1424.44	357833.03	9195.36	367028.39	25691.99	392720.38	392720
2	First Year Operations	161.28	40515.15	13541.24	54056.39	550.93	138399.75	46256.88	184656.62	10204.20	194860.82	194861
3	Second Year Operations	72.97	18330.80	819.67	19150.47	249.27	62617.99	2799.99	65417.98	4579.26	69997.24	69997
4	Third Year Operations	55.17	13859.26	0.00	13859.26	188.46	47343.22	0.00	47343.22	3314.03	50657.24	50657
5	Fourth Year Operations	38.50	9671.59	0.00	9671.59	131.52	33038.13	0.00	33038.13	2312.67	35350.80	35351
6	Fifth Year Operations	38.50	9671.59	0.00	9671.59	131.52	33038.13	0.00	33038.13	2312.67	35350.80	35351
7	Sixth Year Operations	38.50	9671.59	0.00	9671.59	131.52	33038.13	0.00	33038.13	240.28	33278.41	33278
8	Seventh Year Operations	38.50	9671.59	0.00	9671.59	131.52	33038.13	0.00	33038.13	2312.67	35350.80	35351
	Total	860.41	218663.24	17052.76	235716.00	2939.16	738346.52	58252.23	796598.75	50967.76	847566.51	847567

Cost per plant Rs.	223.34
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- Note 1. The rates indicated are as per item No. 3 of Government of Maharashtra resolution No. MREGS-2011/F.No. 85/EGS-1, Planning department, EGS division dt. 03/11/2011. The rates for item No. 4 & 5 of pre monsoon works and item No. 2 of FYO Are as per Model No. 7.
2. Rubble bund of size bottom width 1.00m top width 0.60 m and height 1.00 m should be constructed wherever digging of TCM is not possible.


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