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Model Rate no 5, of P. C F (HoFF) M.S. Nagpur, latter no D17/ Nodal cell/ CR -
40/ 1127 / 2019-20 dated 04.10.2019

ESTIMATE

**Model no 5 --Model Rate structure for Compensatory Afforestation Fencing
and Irrigated Plantation**

Model rate structure for plantation of mixed tree spp. in area with rain fall 800 mm
to 1200 mm and medium quality, medium drain soil with depth above 30cm.

Size of Pits -0.45 x 0.45 0.45 m No of seedlings 1111 per ha.

Estimate for 2.00 Ha

Wage rate - 350/ per day.

Sr n	Particulars of works	Man days	Wages	M. & S.	Amount for 1 Ha	Amount for 2.00 ha
A) Pre-monsoon works PYO + PPO						
1	a) Survey & Demarcation	1.00	350.00	91.00	441.00	882.00
	b) Preparation of Treatment Map. (100 m x 50m grid)	1.00	350.00	91.00	441.00	882.00
	c) Digging of trial pits of size 0.30 x 0.30 x 0.60 in corner of grid.)	0.40	140.00	0.00	140.00	280.00
	d) Fixing 60cm x 0.05cm x 12cm cement pillars up to 30cm deep in corner of Grid. Painting with Grid no etc. complete. (3 pillars Rs 75/for each pillars)	0.00	0.00	225.00	225.00	450.00
	e) Cleaning of brushes and preparation of site (As per requirement)	10.00	3500.00	0.00	3500.00	7,000.00
2	Soil and Moisture conservation works including collection of rubbles from area up 30m	31.00	10,850.0	0.00	10850.00	11,700.00
3	Providing and fixing chain link fencing, 102 Rmt. per ha. (with one gate+ two wicket gate for one side) (Rs. 1494/ Per Rmt. of basic + transportation of ave. lead plus 20% for tribal/remote area	0.00	0.00	182865.6	182,865.60	365,731.2
4	Alignments for pits at 3m x 3m spacements, 1111 per ha (0.25 per 100 Pits and M&S @ Rs 2.24 pre 50 pits.	2.78	973.00	49.77	1022.77	2,045.54
5	Digging of pits of size 0.45x 0.45 0.45 m (1111 pits per ha.) 6.60 M.D. per 100 Pits.	73.33	25,665.5	0.00	25,665.5	51,331.00
6	Construction of 5.00 Rmt. wide Inspection Path. 1 MD per 100 Rmt.	1.00	350.00	0.00	350.00	700.00
7	Enumeration of all valuable plant spp at plantation site and grid wise counting &	0.75	262.50	25.00	287.50	575.00

	colour band and recording the same in register (0.75 M.D.) per 100 plants.					
8	Providing and fixing (4feet x 3 feet) Information board each per site.	0.00	0.00	5,000.0	5,000.00	10,000.00
9	Part Nursery cost for resining 1333/per Ha. (Including 20% causality replacement) in polybags of size 12.5 cm x25 cm (wages Rs. 11.90 & M & S Rs3.62 per plant)	46.71	16,348.5	4825.46	21173.96	2,347.92
Total		167.97	58,789.5	193263.8	252,053.33	504,106.66
Contingency 3%			0.00	7,561.60	7561.60	15,123.20
Labour welfare 4%			0.00	10082.13	10082.13	20,164.26
Ground Total		167.95	58,789.5	210,907.56	269,697.06	539,394.12
B) First Year Operations						
1	Part Nursery cost for resining 1333/seedlings per Ha. (wages Rs. 3.77 & M & S Rs. 0.81)	14.80	5180.00	1079.73	6,259.73	12,519.46
2	Refilling of pits with good quality soil including application of signal super & fertilizer @ 1.75 per seedling Phosphate (15 MD for 100 Trench)	18.44	6,454.00	1944.25	8,398.25	16,796.50
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	654.50	2426.00	3080.50	6,161.00
4	Plantation of seedlings 1111 seedlings per ha. (1 M.D. per 100 seedlings)	11.11	3,888.50	0.00	3888.50	7,777.00
5	3 weeding (1RM circular) and 2 soil workings (4 M.D. per 100 seedlings) fertilizer application Rs 0.82 ha per seedling	44.44	15,554.00	911.02	16,465.02	32,930.04
6	Watering 1111 seedlings in Nov, Dec, Jan, And Jun 1 time each and Feb. to May 2 times each total 12 times 5 lit. per seedlings, purchase of 1111 plastic can of 5 lit. capacity/ matka @Rs 25 / each and 100 lit capacity 11 drum @ Rs 4000/ each for supplying water & Water supply @Rs. 0.50/ -lit. and watering 150 seedling per M.D.	59.25	20,737.50	54395.00	75,132.50	150,265.0
7	Causality replacement (20% 222 seedling per ha./ 2.M.D. per 100 seedlings)	4.44	1,554.00	0.00	1554.00	3108.00
8	Part Nursery cost for causality replacement in SYO (222 seedlings per ha) wages Rs. 11.90 & M.S. Rs3.62 Total Rs. 12.55 per ha.	7.77	2,695.00	803.64	3,498.64	6,997.80
9	Watch and ward (10 month -1 watcher per 10 ha.)	27.38	9,583.00	0.00	9,583.00	19,166.00
10	Soil working of naturally growing plant and singling (1.15 MD per 100 plants)	1.15	402.50	10.00	412.5	825.00

11	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		192.65	67,427.50	61569.64	128,997.14	257,994.28
Contingency 3 %			0.00	3,869.91	3,869.91	7,739.82
Labour Welfare 4%			0.00	5,159.89	5159.89	10,319.78
Grand Total		192.65	67,427.50	70,599.44	138,026.94	276,054.00

C) Second Year Operations

1	Part Nursery cost for seedlings for causality replacement (222 Seedlings per ha.) labour rate Rs.3.77 & M.S. Rs. 1.82 per seedling	2.46	861.00	404.00	1,265.00	2530.00
2	Transportation of 222 seedling for casualty replacement from Nursery to plantation site (including loading & unloading) 0.14 M.D. & M.S.Rs.1.82 Per seedlings)	0.31	108.50	404.04	512.54	1025.08
3	Planting for causality replacement 222 seedlings (2.00 M.D. per 100 Seedlings.)	4.44	1,554.00	0.00	1554.00	3108.00
4	2 weeding's and 1 soil workings, with fertilizer application at Rs 2.5 MD per 100 plant M.S. Rs 0.82 per seedling	27.77	9719.50	911.02	10630.52	21,261.04
5	Watering 1111 seedlings in Nov , Dec. Jan, And Jun 1 time each and Feb. to May 2 times each total 12 times 5 lit. per seedlings , replacing 10% plastic can /matka @Rs 25 / Each replacing 111 cans/matka, supplying Water @Rs. 0.50/ -lit. and watering 150 seedling per M.D.	88.88	31,108.00	36105.00	67,213.00	134,426.00
6	Watch and ward, 12 month -1 watcher per 10 ha.	36.50	12775.00	00.00	12775.00	25,550.00
7	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		162.36	56,826.00	37824.06	94,650.06	189,300.12
Contingency 3 %			0.00	2,839.50	2,839.50	5,679.00
Labour Welfare 4%			0.00	3,786.00	3786.00	7,572.00
Grand Total		162.36	56,826.0	44,449.56	101,275.56	202,551.12

D) Third year Operation

1	1 weeding and 1 soil workings (1.5 M.D. Per 100 seedlings) applying fertilizer @ Rs. 0.82 Per plant	16.67	5834.50	911.02	5945.52	11,891.04
2	Watering 556 seedlings in Nov , Dec. Jan, And Jun 1 time each and Feb. to May 2 times each total 12 times per seedlings 5 lit. water supply @Rs. 0.50/ -lit. and watering 150 seedling per M.D.	44.48	15568.00	16680.00	32248.00	64,496.00
3	Watch and ward, 12 month -1 watcher per 10 ha.	36.50	12775.00	00.00	12775.00	25,550.00

4	Counting of survival % grid wise & species wise and Note the same on register in May & October	2.00	700.00	25.00	725.00	1,450.00
5	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		101.65	35,577.50	17616.02	53193.52	106,387.04
Contingency 3 %			000	1595.81	1595.81	1,191.62
Labour Welfare 4%			0.00	2127.74	2127.74	4,255.48
Grand Total		101.65	35,577.5	21,339.57	56,917.07	113,834.14

E) Fourth Year Operations

1	Watch and ward, 12 month -1 watcher per 10 ha.	36.50	12775.00	0.00	12775.00	25,550.00
2	Counting of survival % grid wise & species wise and Note the same on register in May & October	2.00	700.00	25.00	725.00	1,450.00
3	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		40.50	14175.00	25.00	14200.00	28,400.00
Contingency 3 %			0.00	426.00	426.00	852.00
Labour Welfare 4%			0.00	568.00	568.00	1,136.00
Grand Total		40.50	14175.00	1019.00	15194.00	30,388.00

F) Fifth Year Operations

1	Watch and ward, 12 month -1 watcher per 10 ha.	36.50	12775.00	0.00	12775.00	25,550.00
2	Counting of survival % Grid wise & species wise and Note the same on register in May & October	2.00	700.00	25.00	725.00	1,450.00
3	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		40.50	14175.00	25.00	14200.00	28,400.00
Contingency 3 %			0.00	426.00	426.00	852.00
Labour Welfare 4%			0.00	568.00	568.00	1,136.00
Grand Total		40.50	14175.00	1019.00	15194.00	30,388.00

G) Sixth Year operations

1	Watch and ward, 12 month -1 watcher per 10 ha.	36.50	12775.00	0.00	12775.00	25,550.00
2	Counting of survival % Grid wise & species wise and Note the same on register in May & October	2.00	700.00	25.00	725.00	1,450.00
3	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		40.50	14175.00	25.00	14200.00	28,400.00
Contingency 3 %			0.00	426.00	426.00	852.00
Labour Welfare 4%			0.00	568.00	568.00	1,136.00
Grand Total		40.50	14175.00	1019.00	15194.00	30,388.00

H) Seventh Year operations

1	Watch and ward, 12 month-1 watcher per 10 ha	36.50	12775.00	0.00	12775.00	25,550.00
2	Counting of survival % Grid wise & species wise and Note the same on register in May &October	2.00	700.00	25.00	725.00	1,450.00
3	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		40.50	14175.00	25.00	14200.00	28,400.00
Contingency 3 %			0.00	426.00	426.00	852.00
Labour Welfare 4%			0.00	568.00	568.00	1,136.00
Grand Total		40.50	14175.00	1019.00	15194.00	30,388.00

I) Eighth Year Operations

1	Watch and ward, 12 month-1 watcher per 10 ha	36.50	12775.00	0.00	12775.00	25,550.00
2	Counting of survival % Grid wise & species wise and Note the same on register in May &October	2.00	700.00	25.00	725.00	1,450.00
3	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		40.50	14175.00	25.00	14200.00	28,400.00
Contingency 3 %			0.00	426.00	426.00	852.00
Labour Welfare 4%			0.00	568.00	568.00	1,136.00
Grand Total		40.50	14175.00	1019.00	15194.00	30,388.00

J) Ninth Year operations

1	Watch and ward, 12 month-1 watcher per 10ha.	36.50	12775.00	0.00	12775.00	25,550.00
2	Counting of survival % Grid wise & species wise and Note the same on register in May &October	2.00	700.00	25.00	725.00	1,450.00
3	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		40.50	14175.00	25.00	14200.00	28,400.00
Contingency 3 %			0.00	426.00	426.00	852.00
Labour Welfare 4%			0.00	568.00	568.00	1,136.00
Grand Total		40.50	14175.00	1019.00	15194.00	30,388.00

K) Tenth Year operations

1	Watch and ward, 12 month-1 watcher per 10ha.	36.50	12775.00	0.00	12775.00	25,550.00
2	Counting of survival % Grid wise & species wise and Note the same on register in May &October	2.00	700.00	25.00	725.00	1,450.00
3	Fire tracing	2.00	700.00	0.00	700.00	1,400.00
Total		40.50	14175.00	25.00	14200.00	28,400.00
Contingency 3 %			0.00	426.00	426.00	852.00
Labour Welfare 4%			0.00	568.00	568.00	1,136.00
Grand Total		40.50	14175.00	1019.00	15194.00	30,388.00

(Signature)
 RANGE FOREST OFFICER
 BHALTAL, DIST SATARA

(Signature)
 (Dr. Bharat Singh Hada)
 Deputy Conservator of Forests,
 Forest Division, Satara.

ABSTRACTS FOR MODEL NO 5

(Amount in Rs.)

S.no	Year of operation	Man days	Wages	M. & S	Total	Other Expenses	Total For 1.00 ha	Amount For 2 Ha
1	PYO + PPO Works	167.97	58,789.5	193,263.83	252,053.33	17,643.73	269,697.06	539,394.00
2	First Year Operation	192.65	67427.50	61569.64	128,997.14	9029.80	138,026.94	276,054.00
3	second Year Operation	162.36	56826.00	37824.06	94,650.06	6,625.50	101,275.56	202,551.00
4	Third Year Operation	101.65	35,577.5	17616.02	53,193.52	3723.55	56,917.07	113,834.00
5	Fourth Year Operation	40.50	14175.00	25.00	14200.00	994.00	15,194.00	30,388.00
6	Fifth Year Operation	40.50	14175.00	25.00	14200.00	994.00	15,194.00	30,388.00
7	Sixth Year Operation	40.50	14175.00	25.00	14200.00	994.00	15,194.00	30,388.00
8	Seventh Year Operation	40.50	14175.00	25.00	14200.00	994.00	15,194.00	30,388.00
9	Eighth Year Operation	40.50	14175.00	25.00	14200.00	994.00	15,194.00	30,388.00
10	Ninth Year Operation	40.50	14175.00	25.00	14200.00	994.00	15,194.00	30,388.00
11	Tenth Year Operation	40.50	14175.00	25.00	14200.00	994.00	15,194.00	30,388.00
Total		908.13	316,795.50	310,448.55	627,243.50	43,980.58	671,224.08	1,342,449.00

Cost per plant Rs. 604.16 /

- Note 1) The rates of chain link fencing derived from SSR 2017-18 with addition for area differences and transportation lead.
- 2) Plantation MD & M.S. component derived from rate structure as approved by PCCF (HoFF) M.S. Nagpur, Vide letter No Desk- 1/EGS/CR 10/2283 /2017-18 dt. 07.03.2018.

B.S.
(Dr. Bharat Singh Hada)
Deputy Conservator of Forests,
Forest Division, Satara

A. Karmay
RANGE FOREST OFFICER
PHALTAN, DIST. SATARA

A. Karmay
Act. Satara