

**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.

Specimen - 2.4 x 3m

Size of Pits - 0.45 x 0.45 x 0.45m

No of Seedlings - 1111 per ha

Wage Rate- Rs

Area

per day

Hectore

Village-

S.No.

Naivegan (Old Poyanad)

P.F.S No 39 (old S No 157 (A,1))

(Amount in Rs.)

Sl.No	Particulars of works	Man days	Wages	Material supply	Total (Rs.Per Ha.)	Vian days	Wages	Material supply	Total
<b>A. Pre Monsoon Works (PPOPTO)</b>									
1	(a) Survey and demarcation	1.00	425.96	91.00	516.96	2.08	888.00	189.71	1077.71
	(b) Preparation of treatment map (100 m x 50 m grid)	1.00	425.96	91.00	516.96	2.08	888.00	189.71	1077.71
	(c) Digging trial pits of size 0.30x0.30x0.60 in corner of Grid	0.40	170.38	0.00	170.38	0.83	355.20	0.00	355.20
	(d) Fixing 60cm x 0.05cm x 12cm cement pillars upto 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	0.00	0.00	469.06	469.06
	(e) Clearing of bushes and preparation of site (As per requirement)	10.00	4259.60	91.00	4350.60	20.85	8879.99	189.71	9449.71
2	Soil and moisture conservation works including collection of rubbles from areas upto 30 m etc	31.00	13204.76	0.00	13204.76	64.63	27527.96	0.00	27527.96
3	Providing and fixing chain link fencing, 102 Rmt Per ha (With one gate + two wickets gates for one site) (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+1792/- per Rmt (1.60 Rmt height with G.I Chain link size 50mm x 50m, 8 gauge thick and fixed 75mm above ground level complete as per SSR item No.1744 for 2017-18)	0.00	0.00	239047.20	239047.20	0.00	0.00	498341.70	498341.70
4	Alignment of pits at 3m x 3m spacing, 1111 pits per Ha (0.25 per 100 pits and M&S @ Rs. 2.24 per 50 pits	2.78	1184.17	49.77	1233.94	5.80	2468.64	103.76	2522.39
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 <b>Note :-</b> As per local conditions provision for mechanized digging can be made	73.33	31235.65	0.00	31235.65	152.87	65116.95	0.00	65116.95
6	Construction of 5.00 Rmt wide Inspection Path 1M.D. per 100 Rmt	1.00	425.96	0.00	425.96	2.08	888.00	0.00	888.00
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	319.47	25.00	344.47	1.56	666.00	52.12	718.12
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	10423.50	10423.50
9	Part Nursery cost of raising 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.3.62 per plant)	46.71	19896.59	4825.46	24722.05	97.38	41478.42	10039.64	51538.06
<b>Total</b>		<b>167.97</b>	<b>71548.50</b>	<b>24944.43</b>	<b>32093.93</b>	<b>350.17</b>	<b>149157.16</b>	<b>520018.89</b>	<b>669176.05</b>
Contingency 3%			2146.46	7483.36	9629.82		4474.71	15600.57	20075.28
Labour Welfare 4%			2861.94	9977.82	12839.76		5966.29	20800.76	26767.04
<b>Grand Total</b>		<b>167.97</b>	<b>76556.90</b>	<b>266906.61</b>	<b>343463.51</b>	<b>350.17</b>	<b>159598.16</b>	<b>556420.21</b>	<b>716018.37</b>

Sr.No	Particulars of works	Man days	Wages	Material supply	Total (Rs.Per Ha.)	Man days	Wages	Material supply	Total
<b>B. First Year Operations</b>									
1	Part Nursery cost for maintenance of 1333 per ha Rs. 3.77 per seedling (Wages Rs.2.09, M & S Rs. 0.81)	14.80	6619.42	1079.73	7699.15	30.85	13799.50	2250.91	16050.41
2	Refilling of pits by good quality soil including application of single super phosphate (1.66 MD per 100 pits)	18.44	8247.44	1944.25	10191.69	38.44	17193.43	4053.18	21246.61
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	836.37	2426.00	3262.37	3.90	1743.59	5057.48	6801.07
4	Planting of 1111 seedlings (1.0 M D per 100 seedlings)	11.11	4969.04	0.00	4969.04	23.16	10358.95	0.00	10358.95
5	3 seedlings (1 Rmt circular) and 2 soil workings (4.00 M D per 100 seedlings) fertilizer application Rs 0.82 per seedling	44.44	19876.15	911.02	20787.17	92.64	41435.80	1899.20	43335.00
6	Watering 1111 seedlings November and December 1 time each, January to March 2 times each per seedlings 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 seedlings	59.25	26500.04	54395.00	80895.04	123.52	55244.63	113397.26	168641.88
7	Casualty replacement (20% 222 Seedlings per ha ) (2 M D per 100 seedlings)	4.44	1985.83	0.00	1985.83	9.26	4139.85	0.00	4139.85
8	Part Nursery cost for causality replacement in SYO (222 seedlings per ha ) (wages Rs 1.90 and material supply Rs.3.62 total Rs 12.55 per seedling.)	7.77	3475.19	803.64	4278.83	16.20	7244.74	1675.35	8920.09
9	Watch and ward (10 months - 1 watcher per 10 ha)	27.38	12245.92	0.00	12245.92	57.08	25529.08	0.00	25529.08
10	Soil working for naturally grower plants and singling (1.15 M D per 100 plants)	1.15	514.35	10.00	524.35	2.40	1072.26	20.85	1093.11
11	Fire tracing	2.00	894.52	0.00	894.52	4.17	1864.80	0.00	1864.80
	<b>Total</b>	<b>192.65</b>	<b>86164.25</b>	<b>61569.64</b>	<b>147733.89</b>	<b>401.62</b>	<b>179626.62</b>	<b>128354.23</b>	<b>307980.85</b>
	Contingency 3%		2584.93	1847.09	4432.02		5388.80	3850.63	9239.43
	Labour Welfare 4%		3446.57	2462.79	5909.36		7185.06	5134.17	12319.23
	<b>Grand Total</b>	<b>192.65</b>	<b>92195.75</b>	<b>65879.51</b>	<b>158075.27</b>	<b>401.62</b>	<b>192200.48</b>	<b>137339.02</b>	<b>329539.51</b>
<b>C. Second Year Operations</b>									
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	1155.27	404.00	1559.27	5.13	2408.39	842.22	3250.60
2	Transportation of 222 seedlings for causality replacement from nursery to plantation site (including loading and unloading) wages 0.14 M D Per 100 Seedling & M.S. Rs 1.82 per seedlings	0.31	145.58	404.04	549.62	0.65	303.50	842.30	1145.80
3	Planting for causality replacement 222 seedlings (2.00 M D per 100 seedlings)	4.44	2085.12	0.00	2085.12	9.26	4346.84	0.00	4346.84
4	2 seedlings and 1 soil working. with fertilizer application 2.5 M D. per 100 seedlings at M.S. Rs 0.82 per seedling	27.77	13041.37	911.02	13952.39	57.89	27187.35	1899.20	29086.55
5	Watering 1111 seedlings in November, December, January and June 1 time each and in 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	41739.91	36105.00	77844.91	185.29	87015.18	75268.09	162283.27
6	Watch and ward 12 months - 1 watcher per 10.00 ha	36.50	17141.16	0.00	17141.16	76.09	35734.18	0.00	35734.18
7	Fire tracing	2.00	939.24	0.00	939.24	4.17	1958.04	0.00	1958.04
	<b>Total</b>	<b>162.36</b>	<b>76247.65</b>	<b>37824.06</b>	<b>114071.71</b>	<b>338.47</b>	<b>158953.47</b>	<b>78851.82</b>	<b>237805.29</b>
	Contingency 3%		2287.43	1131.72	3422.15		4768.60	2365.55	7134.16
	Labour Welfare 4%		3049.91	1512.96	4562.87		6358.14	3154.07	9512.21
	<b>Grand Total</b>	<b>162.36</b>	<b>81584.98</b>	<b>40471.74</b>	<b>122056.73</b>	<b>338.47</b>	<b>170080.22</b>	<b>84371.45</b>	<b>254451.66</b>

Sl.No	Particulars of works	Man days	Wages	Material supply	Total (Rs.Per Ha.)	Man days	Wages	Material supply	Total
<b>D. Third Year Operations</b>									
1	1 seedling and 1 soil working (150 MTD per 100 seedlings) applying fertilizer @ Rs.0.82 per plant	16.67	8220.01	911.02	9131.03	34.75	17136.25	1849.26	19635.46
2	Watering 556 seedlings in November, December, January and June 1 time each and February to May 2 times each total 12 times per seedlings 5 litre, water supply @Rs.0.50/- litre and watering 150 seedlings per M.D.	44.48	21933.17	16680.00	38613.17	92.73	45724.09	34772.80	80496.88
3	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	17998.22	0.00	17998.22	76.09	37520.89	0.00	37520.89
4	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October	2.00	986.20	25.00	1011.20	4.17	2055.94	52.12	2108.06
5	Fire tracing	2.00	986.20	0.00	986.20	4.17	2055.94	0.00	2055.94
	<b>Total</b>	<b>101.65</b>	<b>50123.81</b>	<b>17616.02</b>	<b>67739.83</b>	<b>211.91</b>	<b>104493.11</b>	<b>36724.12</b>	<b>141217.23</b>
	Contingency 3%		1503.71	528.48	2032.19		3134.79	1101.72	4236.52
	Labour Welfare 4%		2004.95	704.64	2709.59		4179.72	1468.96	5648.69
	<b>Grand Total</b>	<b>101.65</b>	<b>53632.48</b>	<b>18849.14</b>	<b>72481.62</b>	<b>211.91</b>	<b>111807.63</b>	<b>39294.81</b>	<b>151102.44</b>
<b>E. Fourth Year Operations</b>									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	18898.13	0.00	18898.13	76.09	39396.94	0.00	39396.94
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October	2.00	1035.51	25.00	1060.51	4.17	2158.74	52.12	2210.85
3	Fire tracing	2.00	1035.51	0.00	1035.51	4.17	2158.74	0.00	2158.74
	<b>Total</b>	<b>40.50</b>	<b>20969.16</b>	<b>25.00</b>	<b>20994.16</b>	<b>84.43</b>	<b>43714.41</b>	<b>52.12</b>	<b>43766.53</b>
	Contingency 3%		629.07	0.75	629.82		1311.43	1.56	1313.00
	Labour Welfare 4%		838.77	1.00	839.77		1748.58	2.08	1750.66
	<b>Grand Total</b>	<b>40.50</b>	<b>22437.00</b>	<b>26.75</b>	<b>22463.75</b>	<b>84.43</b>	<b>46774.42</b>	<b>55.77</b>	<b>46830.19</b>
<b>F. Fifth Year Operations</b>									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	19843.04	0.00	19843.04	76.09	41366.78	0.00	41366.78
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October	2.00	1087.29	25.00	1112.29	4.17	2266.67	52.12	2318.79
3	Fire tracing	2.00	1087.29	0.00	1087.29	4.17	2266.67	0.00	2266.67
	<b>Total</b>	<b>40.50</b>	<b>22017.62</b>	<b>25.00</b>	<b>22042.62</b>	<b>84.43</b>	<b>45900.13</b>	<b>52.12</b>	<b>45952.25</b>
	Contingency 3%		660.53	0.75	661.28		1377.00	1.56	1378.57
	Labour Welfare 4%		880.70	1.00	881.70		1836.01	2.08	1838.09
	<b>Grand Total</b>	<b>40.50</b>	<b>23558.85</b>	<b>26.75</b>	<b>23585.60</b>	<b>84.43</b>	<b>49113.14</b>	<b>55.77</b>	<b>49168.90</b>
<b>G. Sixth Year Operations</b>									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	20835.19	0.00	20835.19	76.09	43435.12	0.00	43435.12
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October	2.00	1141.65	25.00	1166.65	4.17	2380.01	52.12	2432.12
3	Fire tracing	2.00	1141.65	0.00	1141.65	4.17	2380.01	0.00	2380.01
	<b>Total</b>	<b>40.50</b>	<b>23118.50</b>	<b>25.00</b>	<b>23143.50</b>	<b>84.43</b>	<b>48195.14</b>	<b>52.12</b>	<b>48247.25</b>
	Contingency 3%		693.55	0.75	694.30		1445.85	1.56	1447.42
	Labour Welfare 4%		924.74	1.00	925.74		1927.81	2.08	1929.89
	<b>Grand Total</b>	<b>40.50</b>	<b>24736.79</b>	<b>26.75</b>	<b>24763.54</b>	<b>84.43</b>	<b>51568.79</b>	<b>55.77</b>	<b>51624.56</b>

Sr.No	Particulars of works	Man days	Wages	Material supply	Total (Rs./Per Ha.)	Man days	Wages	Material supply	Total
<b>H. Seventh Year Operations</b>									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	21876.95	0.00	21876.95	76.09	45606.88	0.00	45606.88
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October	2.00	1198.74	25.00	1223.74	4.17	2499.01	52.12	2551.12
3	Fire tracing	2.00	1198.74	0.00	1198.74	4.17	2499.01	0.00	2499.01
	<b>Total</b>	<b>40.50</b>	<b>24274.42</b>	<b>25.00</b>	<b>24299.42</b>	<b>84.43</b>	<b>50604.89</b>	<b>52.12</b>	<b>50657.01</b>
	Contingency 3%		728.23	0.75	728.98		1518.15	1.56	1519.71
	Labour Welfare 4%		970.98	1.00	971.98		2024.20	2.08	2026.28
	<b>Grand Total</b>	<b>40.50</b>	<b>25973.63</b>	<b>26.75</b>	<b>26000.38</b>	<b>84.43</b>	<b>54147.23</b>	<b>55.77</b>	<b>54203.00</b>
<b>I. Eighth Year Operations</b>									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	22970.80	0.00	22970.80	76.09	47887.22	0.00	47887.22
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October	2.00	1258.67	25.00	1283.67	4.17	2623.96	52.12	2676.07
3	Fire tracing	2.00	1258.67	0.00	1258.67	4.17	2623.96	0.00	2623.96
	<b>Total</b>	<b>40.50</b>	<b>25488.15</b>	<b>25.00</b>	<b>25513.15</b>	<b>84.43</b>	<b>53135.14</b>	<b>52.12</b>	<b>53187.25</b>
	Contingency 3%		764.64	0.75	765.39		1594.05	1.56	1595.62
	Labour Welfare 4%		1019.53	1.00	1020.53		2125.41	2.08	2127.49
	<b>Grand Total</b>	<b>40.50</b>	<b>27272.32</b>	<b>26.75</b>	<b>27299.07</b>	<b>84.43</b>	<b>56854.60</b>	<b>55.77</b>	<b>56910.36</b>
<b>J. Ninth Year Operations</b>									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	24119.34	0.00	24119.34	76.09	50281.58	0.00	50281.58
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October	2.00	1321.61	25.00	1346.61	4.17	2755.16	52.12	2807.27
3	Fire tracing	2.00	1321.61	0.00	1321.61	4.17	2755.16	0.00	2755.16
	<b>Total</b>	<b>40.50</b>	<b>26762.55</b>	<b>25.00</b>	<b>26787.55</b>	<b>84.43</b>	<b>55791.89</b>	<b>52.12</b>	<b>55844.01</b>
	Contingency 3%		802.88	0.75	803.63		1673.76	1.56	1675.32
	Labour Welfare 4%		1070.50	1.00	1071.50		2231.68	2.08	2233.76
	<b>Grand Total</b>	<b>40.50</b>	<b>28635.93</b>	<b>26.75</b>	<b>28662.68</b>	<b>84.43</b>	<b>59697.33</b>	<b>55.77</b>	<b>59753.09</b>
<b>K. Tenth Year Operations</b>									
1	Watch and ward 12 months 1 watcher per 10.00 ha	36.50	25325.30	0.00	25325.30	76.09	52795.66	0.00	52795.66
2	Counting of survival percentage Grid wise and Species wise and to Note the same on Register in May and October	2.00	1387.69	25.00	1412.69	4.17	2892.91	52.12	2945.03
3	Fire tracing	2.00	1387.69	0.00	1387.69	4.17	2892.91	0.00	2892.91
	<b>Total</b>	<b>40.50</b>	<b>28100.68</b>	<b>25.00</b>	<b>28125.68</b>	<b>84.43</b>	<b>58581.49</b>	<b>52.12</b>	<b>58633.61</b>
	Contingency 3%		843.02	0.75	843.77		1757.44	1.56	1759.01
	Labour Welfare 4%		1124.03	1.00	1125.03		2343.26	2.08	2345.34
	<b>Grand Total</b>	<b>40.50</b>	<b>30067.73</b>	<b>26.75</b>	<b>30094.48</b>	<b>84.43</b>	<b>62682.19</b>	<b>55.77</b>	<b>62737.96</b>

Sr.No	Particulars of works	Man days	Wages	Material supply	Total (Rs. Per Ha.)	Man days	Wages	Material supply	Total
1	Pre Monsoon works	167.97	76556.90	266906.61	343463.51	350.17	159598.16	556420.21	716018.37
2	First Year Operations	192.65	92195.75	65879.51	158075.27	401.62	192200.48	137339.02	329539.51
3	Second Year Operations	162.36	81584.98	40471.74	122056.73	338.47	170080.22	84371.45	254451.66
4	Third Year Operations	101.65	53632.48	18849.14	72481.62	211.91	111807.63	39294.81	151102.44
5	Fourth Year Operations	40.50	22437.00	26.75	22463.75	84.43	46774.42	55.77	46830.18
6	Fifth Year Operations	40.50	23558.85	26.75	23585.60	84.43	49113.14	55.77	49168.90
7	Sixth Year Operations	40.50	24736.79	26.75	24763.54	84.43	51568.79	55.77	51624.56
8	Seventh Year Operations	40.50	25973.63	26.75	26000.38	84.43	54147.23	55.77	54203.00
9	Eighth Year Operations	40.50	27272.32	26.75	27299.07	84.43	56854.60	55.77	56910.36
10	Ninth Year Operations	40.50	28635.93	26.75	28662.68	84.43	59697.33	55.77	59753.09
11	Tenth Year Operations	40.50	30067.73	26.75	30094.48	84.43	62682.19	55.77	62737.96
	<b>rand Total</b>	<b>908.13</b>	<b>486652.37</b>	<b>392294.26</b>	<b>878946.63</b>	<b>1893.18</b>	<b>1014524.19</b>	<b>817815.84</b>	<b>1832340.04</b>

### Abstract

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#### 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.

*Sr*  
*SK*  
**Sanjoy Kadam**  
 Deputy Conservator of Forests  
 Alibag

*Ratel*  
**RANGE FOREST OFFICER**  
**ALIBAG PROTECTION**