

## Annexure-19

### Compensatory Afforestation Scheme for double degraded area

Proposal for diversion of Protected forest land for the project of Widening and Strengthening of existing carriageway from km. 265/200 to km. 266/200 and from km 273/002 to km 287/905 of NH-56 under NH division Vadodara in the state of Gujarat. (7.283 Ha.)

Detailed scheme of Compensatory Afforestation to be carried out in lieu of 7.283 ha. of Protected forest land for the project of Widening and Strengthening of existing carriageway from km. 265/200 to km. 266/200 and from km 273/002 to km 287/905 of NH-56 under NH division Vadodara in the state of Gujarat.

#### 1. Details of degraded land.

Village	Karmadi
Taluka	Limkheda
Range	Sarjumi
District	Dahod
Division	Baria
Block/ Patal, Compartment No.	13 pt.
Area to be afforested	15.00 Ha.
Working circle	

#### 2. Description of Area.

Soil type	Loamy & Rocky
Topography	Plain
Slope	Gentle
Whether the area is bearing any root stock of Vegetation	Yes

#### 3. Name of Plantation Programme:-

Compensatory Afforestation Scheme for Degraded Area.

#### 4. Schedule of Plantation Programme:-

(ix)	The Compensatory Afforestation on degraded area would be started by Dy.Conservator of Forest Baria Division as early as possible after the proposal is formally approved.
(x)	Compensatory Afforestation will be done in 15.00 ha. area. The total afforestation cost will be about <b>Rs.82,58,940/-</b> Executive Engineer, NHAI Division- Vadodara has given an undertaking to pay the cost of Compensatory Afforestation as per the prevailing wages (including the price escalation and supervision charges).

**Details of Year Wise Break-Up requirement of fund is as under**

**Daily / Wages-Rs.351.30**

Year	Area ha	Rate /ha	Total Amount
O Year 70 %	15.00	182572	2738580
1 <sup>st</sup> Year (Current Year)	15.00	89260	1338900
2 <sup>nd</sup> Year	15.00	60000	900000
3 <sup>rd</sup> Year	15.00	47850	717750
4 <sup>th</sup> Year	15.00	16561	248415
5 <sup>th</sup> Year	15.00	8544	128160
6 <sup>th</sup> Year	15.00	10074	151110
7 <sup>th</sup> Year	15.00	10487	157305
8 <sup>th</sup> Year	15.00	10973	164595
9 <sup>th</sup> Year	15.00	11180	167700
10 <sup>th</sup> Year	15.00	11329	169935
<b>Total</b>		<b>458830</b>	<b>6882450</b>
Supervision Charge 20 %	15.00	91766	1376490
<b>Total</b>		<b>550596</b>	<b>8258940</b>

**Say 8258940**

Compensatory Afforestation will be done in 15.00 ha. Area. The total afforestation cost will be Rs.

**82,58,940/-**

## 5. Technical Details:-

Technical details of Compensatory Afforestation are as Follows:

Sr. No.	Details	Specifications																																	
a	General Details	The C.A. will be taken under Compensatory Afforestation for double land on degraded Forest Areas. The prevailing wage rate is 351.30 per day.																																	
b	Spacement	3 X 3 mtr., 1111 plants per ha.																																	
c	Species to be planted (No. of plants per ha.)	<table> <tr> <td>Khair</td><td>150</td><td>65cm</td></tr> <tr> <td>Kanaj</td><td>100</td><td>75cm</td></tr> <tr> <td>Sadad</td><td>50</td><td>90cm</td></tr> <tr> <td>Bamboo</td><td>100</td><td>65cm</td></tr> <tr> <td>Bordi</td><td>25</td><td>65cm</td></tr> <tr> <td>Baheda</td><td>25</td><td>90cm</td></tr> <tr> <td>Mahuda</td><td>50</td><td>75cm</td></tr> <tr> <td>Amla</td><td>200</td><td>75cm</td></tr> <tr> <td>Teak</td><td>200</td><td>90cm</td></tr> <tr> <td>Etc.</td><td>211</td><td></td></tr> <tr> <td><b>Total</b></td><td><b>1111</b></td><td></td></tr> </table>	Khair	150	65cm	Kanaj	100	75cm	Sadad	50	90cm	Bamboo	100	65cm	Bordi	25	65cm	Baheda	25	90cm	Mahuda	50	75cm	Amla	200	75cm	Teak	200	90cm	Etc.	211		<b>Total</b>	<b>1111</b>	
Khair	150	65cm																																	
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<b>Total</b>	<b>1111</b>																																		
d	Nursery Technique	Nine months old polypot raised plants will be planted at the onset of monsoon.																																	
e	Site Preparation	The malformed rootstock present in the area will be cutback & the site will be cleaned in the month of Nov-Dec. Alignment & pit digging 45 x 45 x 45 cms. will be carried out in the month of Dec-Jan.																																	
f	Plantation Method	Polypot raised plants will be planted during monsoon.																																	
g	Soil & Moisture Conservation Works	<p>(vii) Pucca structure like Check dam, check wall, retaining wall</p> <p>(viii) Contour trenches 2.00 x 0.45 x 0.30, 300 Nos/ha. will be dug along the contour line. the dug out soil will be heaped on the down ward side. Gully plugging &amp; Nala Banding using The loose stone available in the area will be carried out as per requirement. Seeds of Jatropha, Agave plants ...etc. will be planted during monsoon in the upper side of nala as per suitability.</p> <p>(ix) Van Talavadi/ Percolation tank</p>																																	
h	Protection Trench	Barbed wire fencing, Seed sowing And planting of cuttings of Ipomea/ Glarcidia along the fence																																	
i	Silvicultural Operations	<p>1<sup>st</sup> year three weeding soil working, Support watering will be provided if needed.</p> <p>2<sup>nd</sup> year two weeding soil working.</p>																																	

		3 <sup>rd</sup> year one weeding soil working.
j	Maintenance	It is proposed to maintain the Plantation up to ten years.
k	Subsequent silvicultural Operation	Cleaning, cutbacks, thinning etc. (as per species specific requirement) will be carried out at the age as per prescribed in the working plan.
l	Proposed monitoring mechanism	<p>(xv) A plantation register is to be maintained.</p> <p>(xvi) Monitoring is to be done as per the following norms.</p> <p style="padding-left: 40px;">Forester – 100%</p> <p style="padding-left: 40px;">RFO – 100%</p> <p style="padding-left: 40px;">ACF – 20%</p> <p style="padding-left: 40px;">DCF – 10%</p> <p>(xvii) The results of survival etc. are maintained in the plantation register on a periodical basis, which is updated at the end of September and March each year.</p> <p>(xviii) The collar girth is also to be reordered at the end of each year.</p> <p>(xix) At the end of maintenance period, the area is aimed at full stocking and pole crop girth for all the species, except bamboo.</p> <p>(xx) Bamboo would be of the harvestable size by the end of 4<sup>th</sup> year.</p> <p>(xxi) Third party monitoring mechanism is also in the State and if the plantation is in the sample selected, it will also be monitored by the third party selected for this purpose.</p>
m	Regeneration cleaning	Cut-back and promotion of root suckers.
n	Silviculture & other activities	Only afforestation aimed plantation will be taken up, as the area falls under degraded forest land.

Dy. Conservator of Forest  
Baria

The Compensatory Afforestation scheme at the cost of Rs.82,58,940- (in words) **Eighty Two Lacs Fifty Eight Thousand Nine Hundred Fourty Only** is technically and administrative approved by the undersigned.

Dy. Conservator of Forest  
Baria


Village: Karmadi, Ta: Limkheda, Dist: Dahod

C.A. Area: 15.00 ha, R.F. SR. No: 13 pt



## REFERENCE

Reserved Forest Boundary 

Area to Be Taken For Area 15.00 HA 

SCALE: 1 CM: 79.20 MT

Trd. By.

Deputy Conservator<sup>@</sup> Of Forest  
Baria

## Compensatory Afforestation Scheme for Non- Forest land Under FCA Proposal

Proposed scheme of Compensatory Afforestation to be carried out in lieu of 7.283 ha. of Protected forest land under the project of Widening and Strengthening of existing carriageway from km. 265/200 to km. 266/200 and from km 273/002 to km 287/905 of NH-56 under NH division Vadodara in the state of Gujarat.

Plant spacings = 3m x 3m

111 seedling / ha

1st year replacement 10 % = 111 seedling / ha

2nd year replacement 20 % = 111+111 seedling / ha

3rd year replacement 10 % = 111 seedling / ha

Total Seedlings = 1333 seedling / ha

Polypot size : 15 cm X 25 cm X 200

Wage rate: 351.30/Day

	Plau ground	Qty.	Labour	Material	Totals
<b>1 year Nursery</b>					
a)	Cost of soil, manure, seeds, water, fertilizer, insecticides, implements, rent of lands. Shade. etc. (including 10 % for casualty replacement)	1222	0	1815	1815
b)	labour : Preparation of beds, filling and arranging of bags, sowing of seeds, watering, shifting, weeding etc.	1222	4868	230	5098
	Seedling cost for casualty replacement in one year old (20 %)	222	1538	419	1957
	Seedling cost for casualty replacement in two year old (10%)	111	770	209	979
	<b>Total</b>		<b>7177</b>	<b>2673</b>	<b>9850</b>
<b>2. Area Development ( Land Preparation )</b>					
a)	Survey, cutback and promotion of root suckers		3657	0	3657
	Alignment and digging of pits 0.45 X 0.45 X 0.45	1111@8.84	10199	0	10199
	<b>Total</b>		<b>13856</b>	<b>0</b>	<b>13856</b>
a)	Natural Fertilizer (Neem cake/ Castor cake)	1111@10	0	11110	11110
	<b>Total</b>		<b>0</b>	<b>11110</b>	<b>11110</b>
<b>3. SMC Works</b>					
			0		
a)	Check wall/ retaining wall /checkdam (all pucca only)	LS	13685	23535	37220
b)	Contour trench 2 M x 45 Cm x 30 Cm as per Rs.51.75/rmt (300 trench)	600rmt	10372	0	10372
c)	Van Talavadi/Hill Top Tank/Percolation tank/Nala bund, Gully Plug etc.		10484	0	10484
	<b>Total</b>		<b>34541</b>	<b>23535</b>	<b>58076</b>
<b>4. Protection</b>					
a)	Barbed wire fencing (220 rmt/ Ha. , Rs. 400/- per Rmt)	LS	8000	80000	88000
b)	Seed sowing and planting of cuttings of Ipomea/ Glaricidia along the fence		1208	473	1681
	<b>Total</b>		<b>9208</b>	<b>80473</b>	<b>89681</b>
	<b>Total for 0 year</b>		<b>64781</b>	<b>117791</b>	<b>182572</b>
<b>1st Year</b>					
a)	Maintenance of nursery (April to June)	1222	4460	340	4800
b)	Transport of seedling for plantation	1111	2370	200	2570
c)	Planting with khamna of Min. 1 m dia	1111	6985	0	6985
d)	Transport & planting of seedling for casualty replacement	111	420	44	464
e)	3 weeding cum soilworking	1111	28509	0	28509
f)	Support watering 5 times @5.30		17560	20539	38099
g)	Protection / tending operation		5370	0	5370
h)	Tending to natural vegetation		1305	0	1305
i)	Contingency		0	1158	1158
	<b>Total for 1st year</b>		<b>66979</b>	<b>22281</b>	<b>89260</b>

2	weeding & soil working		13774	0	13774
	20 % Casually replcement, transport and Planting	111+111	370	1320	1690
c)	Natural fertilizer (neem cake / caster cake ) etc	Rs. 10/plants	0	13560	13560
d)	Support watering 3 times @ 5.30		11150	14325	25475
e)	Protection / tending operation		5501	0	5501
	<b>Total for 2nd Year</b>		<b>30795</b>	<b>29205</b>	<b>60000</b>
<b>3rd Year</b>					
a)	2 weeding & soil working		13774	0	13774
b)	10 % Casually Replcement, transport and	111	244	555	799
b)	Planting, Natural fertilizer, neem cake etc.	Rs. 10/plants	0	14871	14871
c)	Support watering 1 times @6		3968	4120	8088
d)	Protection & maintenance of fencing / tending Operation	L.S	10319	0	10319
	<b>Total for 3rd year</b>		<b>28304</b>	<b>19546</b>	<b>47850</b>
<b>4th Year</b>					
a)	1 weeding & soil working	L.S	6243	0	6243
b)	Protection & Maintenance of fencing/ Tending operation		10318	0	10318
	<b>Total for 4th Year</b>		<b>16561</b>	<b>0</b>	<b>16561</b>
<b>5th Year</b>					
	Protection & maintenance of fencing/ tending operation	L.S	8544	0	8544
	<b>Total for 5th Year</b>		<b>8544</b>	<b>0</b>	<b>8544</b>
<b>6th Year</b>					
	Protection & maintenance of fencing/ tending operation	L.S	10074	0	10074
	<b>Total for 6th Year</b>		<b>10074</b>	<b>0</b>	<b>10074</b>
<b>7th Year</b>					
	Protection & maintenance of fencing/ tending operation	L.S	10487	0	10487
	<b>Total for 7th Year</b>		<b>10487</b>	<b>0</b>	<b>10487</b>
<b>8th Year</b>					
	Protection & maintenance of fencing/ tending operation	L.S	10973	0	10973
	<b>Total for 8th Year</b>		<b>10973</b>	<b>0</b>	<b>10973</b>
<b>9th Year</b>					
	Protection & maintenance of fencing/ tending operation	L.S	11180	0	11180
	<b>Total for 9th Year</b>		<b>11180</b>	<b>0</b>	<b>11180</b>
<b>10th Year</b>					
	Protection & maintenance of fencing/ tending operation	L.S	11329	0	11329
	<b>Total for 10th Year</b>		<b>11329</b>	<b>0</b>	<b>11329</b>
	<b>Grand Total</b>		<b>270007</b>	<b>188823</b>	<b>458830</b>
	The Cost of Supervision/Subsequential Silvicultural operations	20%	54001	37765	91766
			<b>324008</b>	<b>226588</b>	<b>550596</b>

Note :

- 1) Seed sowing along fencing toward for inner side, and also in the plot
- 2) Planting of cutting of ipomea/Glaricidia along the fencing towards outer side

Compensatory afforestation will be done in 15.00 Ha Area

Total Cost Rs. : 82,58,940/-

Deputy Conservator of Forests,  
Baria

### Annexure-3

Zone wise per ha species spectrum for degraded forest areas for Double Degradation area plantation for FCA proposals as also for Campa(CA) project plantations.

#### Model-3

- I. Plant population 1111 (3mx3m spacing)  
II. Density 1111 seedling/Ha.  
III. 1st Year replacement 20 % = 222 seedling /Ha.  
IV. 2nd Year replacement 20 % = 222 seedling /Ha.  
V. 3rd Year replacement 20 % = 222 seedling /Ha.  
VI. Total Seedling = 1777 seedling/Ha.  
VII. 1Polyot size : 15cm 2 25cm 2 200g Total 1111 plants/ Ha.

Sr. No.	Central zone	
	Species	Nos
1	Khair	150
2	Kanaj	100
3	Sadad	50
4	Bamboo	50
5	Bordi	25
6	Baheda	25
7	Mahuda	50
8	Amla	200
9	Teak	200
10	Etc.	261
	<b>Total</b>	<b>1111</b>

(R.M.Parmar)

Deputy Conservator of Forests,  
Baria.