

## Compensary Afforestation Scheme for double Degraded area

A Proposal for Diversion of 16.20 Ha. Forest land for widening of Gandhinagar K-7-Randheja-Balva-Mansa Road KM (5/200 to 15/500) (FP/GJ/ROAD/154609/2022).

Detailed scheme of Compensatory Afforestation for degraded area 16.20 ha. to be carried out in lieu of 33.00 ha. of Reserved forest land to be diverted in Mahesana district.

### 1. Details of degraded land.

Village	Satlasana
Taluka	Satlasana
Range	Dharoi
District	Mahesana
Division	Gandhinagar
Block/ Patal, Compartment No.	375 (Old S.No.139)
Area to be afforested	<b>33.00 Ha.</b>
Working circle	F.S/ C.No. 11/6 & 5 paiki year 2017-18 to 2027-28

### 2. Description of Area.

Soil type	Murumy
Topography	Plain/Revines
Slope	Medium & 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:-

(i)	The Compensatory Afforestation on Non forest area would be started by Dy.Conservator of Forest Gandhinagar Division as early as possible after the proposal is formally approved.
(ii)	Compensatory Afforestation will be done in <b>33.00</b> ha. area. The total afforestation cost will be about <b>Rs.1,96,63,677/-</b> Executive Engineer, Capital Project Division No.3, Patnagar Yojna Bhavan, Sector-16, Gandhinagar has given an undertaking to pay the cost of Compensatory Afforestation as per the prevailing wages (including the price escalation and supervision charges).


## 5. Technical Details:-

93


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 Non forest area. The prevailing wage rate is <b>355.30</b> per day.																																																																							
b	Spacement	3 X 3 mtr., 1111 plants per ha.																																																																							
c	Species to be planted (No. of plants per ha.)	<table><tr><th>Sr.No.</th><th>Species to be Plants</th><th>Nos.</th><th>Plants Hights</th></tr><tr><td>1</td><td>Neem</td><td>300</td><td>75 cm</td></tr><tr><td>2</td><td>Kanji</td><td>100</td><td>75 cm</td></tr><tr><td>3</td><td>Arjun Sadad</td><td>100</td><td>90 cm</td></tr><tr><td>4</td><td>Bamboo</td><td>111</td><td>65 cm</td></tr><tr><td>5</td><td>Jamun</td><td>50</td><td>75 cm</td></tr><tr><td>6</td><td>Biyo</td><td>50</td><td>90 cm</td></tr><tr><td>7</td><td>Rayan</td><td>30</td><td>75 cm</td></tr><tr><td>8</td><td>Baheda(Terminalia)</td><td>40</td><td>90 cm</td></tr><tr><td>9</td><td>Kadayo</td><td>50</td><td>65 cm</td></tr><tr><td>10</td><td>Vad</td><td>50</td><td>90 cm</td></tr><tr><td>11</td><td>Simalo</td><td>50</td><td>75 cm</td></tr><tr><td>12</td><td>Kosam</td><td>30</td><td>75 cm</td></tr><tr><td>13</td><td>Khijdo</td><td>20</td><td>65 cm</td></tr><tr><td>14</td><td>Amali</td><td>30</td><td>75 cm</td></tr><tr><td>15</td><td>Others</td><td>100</td><td>75 cm to 90 cm</td></tr><tr><td colspan="2">Total</td><td>1111</td><td></td></tr></table>	Sr.No.	Species to be Plants	Nos.	Plants Hights	1	Neem	300	75 cm	2	Kanji	100	75 cm	3	Arjun Sadad	100	90 cm	4	Bamboo	111	65 cm	5	Jamun	50	75 cm	6	Biyo	50	90 cm	7	Rayan	30	75 cm	8	Baheda(Terminalia)	40	90 cm	9	Kadayo	50	65 cm	10	Vad	50	90 cm	11	Simalo	50	75 cm	12	Kosam	30	75 cm	13	Khijdo	20	65 cm	14	Amali	30	75 cm	15	Others	100	75 cm to 90 cm	Total		1111				
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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	(i) Pucca structure like Check dam, check wall, retaining wall (ii) 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 & 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.																																																																							

h	Protection Trench	Barbed wire fencing, Seed sowing And planting of cuttings of Ipomea/Glarcidia along the fence
i	Silvicultural Operations	1 <sup>st</sup> year three weeding soil working, Support watering will be provided if needed. 2 <sup>nd</sup> year two weeding soil working. 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	(i) A plantation register is to be maintained. (ii) Monitoring is to be done as per the following norms. Forester - 100% RFO - 100% ACF - 20% DCF - 10% (iii) 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. (iv) At the end of maintenance period, the area is aimed at full stocking and pole crop girth for all the species, except bamboo. (v) 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.
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.

  
**( Dr.C.M.Shanadre )**  
**Dy. Conservator of Forest**  
**Gandhinagar Forest Division**  
**Gandhinagar**

The Compensatory Afforestation scheme at the cost of **Rs.1,96,63,677/-** is technically and administrative approved by the undersigned.

  
**( Dr.C.M.Shanadre )**  
**Dy. Conservator of Forest**  
**Gandhinagar Forest Division**  
**Gandhinagar**

04 OCT 2022



Sub:- A Proposal for Diversion of **16.20 Ha.** Forest land for widening of Gandhinagar K-7-Randheja-Balva-Mansa Road KM (5/200 to 15/500) (FP/GJ/ROAD/154609/2022). Detailed scheme of Compensatory Afforestation for degraded area 16.20 ha. to be carried out in lieu of 33.00 ha. of Reserved forest land to be diverted in Mahesana district.

Daily wages Rs. 355.30

Spacemnts = 3 m x 3 m				
1111 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				
Item of work	Qty.	Labour	Material	Total
1	2	3	4	5
<b>0 year</b>				
Nursery				
(a) Cost of soil, manure, seeds, water, fertilizer, insecticides, implements, rent of lands, Shade, etc. (including 10 % for casualty replacement)	1222	0	2096	2096
(b) labour : Preparation of beds, filling and arranging of bags, showing of seeds, watering shifting, weeding etc.	1222	5125	265	5390
(c) Seedling cost for casualty replacement in one year old (20%)	222	1619	485	2104
(d) Seedling cost for casualty replacement in two year old (10%)	111	811	241	1052
<b>Total</b>		<b>7555</b>	<b>3087</b>	<b>10642</b>
<b>2. Area Development ( Land Preparation )</b>				
(a) Survey, cutback and promotion of root suckers		3852	0	3852
(b) Aligment and digging of pits 0.45 X 0.45 X 0.45	1111@ 6.00	11121	0	11121
<b>Total</b>		<b>14973</b>	<b>0</b>	<b>14973</b>
(a) Natural fertilizer (Neem cake/ Castor cake)	1111 @ 5.00	0	11344	11344
<b>Total</b>		<b>0</b>	<b>11344</b>	<b>11344</b>
<b>3. SMC Works</b>				
(a) Check wall/ retaining wall /checkdem (all pucca only)	L.S.	13681	27158	40839
(b) Contour trench 2 M x 45 Cm x 30 Cm as per Rs.17.00/rmt (300 trench)	600 rmt.	10414	0	10414
<b>Total</b>		<b>24095</b>	<b>27158</b>	<b>51253</b>
<b>4. Protection</b>				
(a) Barbed wire fencing	Rmt. 450	13119	118064	131183
(b) Seed sowing and planting of cuttings of Ipomea/ Glaricidia along the fence		1270	546	1816
<b>Total</b>		<b>14389</b>	<b>118610</b>	<b>132999</b>
<b>Sub Total of 0 year</b>		<b>61012</b>	<b>160199</b>	<b>221211</b>
<b>1st Year</b>				
(a) Maintenance of nursery (April to June)	1222	3932	392	4324
(b) Transport of seedling for plantation	1111	2157	446	2603
(c) Planting with khamna of Min 1 m dia	1111	6629	0	6629
(d) Transport of seedling for casualty replacement	111	230	52	282
(e) 3 weeding cum soil working	1111	25840	0	25840
(f) Support watering 5 times @ 3.25		16518	23702	40220
(g) Protection / tending operation		5346	0	5346
(h) Tending to natural vegetation		1337	0	1337
(i) Contingency		0	1337	1337
<b>Total for 1st year</b>		<b>61989</b>	<b>25929</b>	<b>87918</b>

<b>2nd Year</b>				
(a) 2 weeding & soil working		14351	0	14351
(b) 20 % Casually replcement, transport and planting	111+111	241	1201	1442
(c) Natural fertilizer (neem cake / caster cake ) etc.	Rs.5/ plant	0	13406	13406
(d) Support watering 3 times @ 3.25		10733	15406	26139
(e) Protection / tending operation		5792	0	5792
<b>Total for 2nd year</b>		<b>31117</b>	<b>30013</b>	<b>61130</b>
<b>3rd Year</b>				
(a) 2 weeding & soil working		15456	0	15456
(b) 10 % Casually replcement, transport and planting	111	130	648	778
(c) Natural fertilizer, neem cake etc.	Rs.5/ plant	0	14437	14437
(d) Support watering 1 times @ 3.25		3854	5530	9384
(e) Protection & maintenance of fencing / tending operation	L.S.	7797	0	7797
<b>Total for 3rd year</b>		<b>27237</b>	<b>20615</b>	<b>47852</b>
<b>4thYear</b>				
(a) 1 weeding & soil working		8279	0	8279
(b) Protection & Maintenance of fencing/ Tending operation	L.S.	8353	0	8353
<b>Total for 4th year</b>		<b>16632</b>	<b>0</b>	<b>16632</b>
<b>5thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	8910	0	8910
<b>Total for 5th year</b>		<b>8910</b>	<b>0</b>	<b>8910</b>
<b>6thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	9467	0	9467
<b>Total for 6th year</b>		<b>9467</b>	<b>0</b>	<b>9467</b>
<b>7thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	10024	0	10024
<b>Total for 7th year</b>		<b>10024</b>	<b>0</b>	<b>10024</b>
<b>8thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	10581	0	10581
<b>Total for 8th year</b>		<b>10581</b>	<b>0</b>	<b>10581</b>
<b>9thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	11138	0	11138
<b>Total for 9th year</b>		<b>11138</b>	<b>0</b>	<b>11138</b>
<b>10thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	11695	0	11695
<b>Total for 10th year</b>		<b>11695</b>	<b>0</b>	<b>11695</b>
<b>SUB TOTAL :</b>		<b>259802</b>	<b>236756</b>	<b>496558</b>
The Cost of Supervision/subsequent silvicultureal Operations	20%	51960	47351	99311
		<b>311762</b>	<b>284107</b>	<b>595869</b>

**Note :-**

- (1) Seed sowing along fencing towards the inner side, and also in the plot.  
 (2) Planting of cutting of ipomea//Gliricidia along the fencing towards outer side.

Compensatory afforestation will be done in 1.00 ha. Area.

Par Cost	Rs.	Ha.	The Total
1 Ha cost	595869.00	33.00	Total Cost Rs. 19663677.00

( Dr.C.M.Shanadre )  
 Dy. Conservator of Forest  
 Gandhinagar Forest Division  
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**Subj:-** A Proposal for Diversion of 16.20 Ha. Forest land for widening of Gandhinagar K-7-Randheja-Kalva-Mansa Road KM (5/200 to 15/500) (FF/G)/ROAD/154609/2022). Detailed scheme of Compensatory Afforestation for degraded area 16.20 ha. to be carried out in lieu of 33.00 ha. of Reserved forest land to be diverted in Mahesana district

Name of works	Model No.	Area ( Ha.)	Rate per (Ha.)	Amount (Daily wage: Rs.355.30)											Total Rs.
				Zero Year Rs.	1st Year Rs.	IInd Year Rs.	III rd Year Rs.	IVth Year Rs.	Vth Year Rs.	VIth Year Rs.	VIIth Year Rs.	VIIIth Year Rs.	IXth Year Rs.	Xth Year Rs.	
0 Year 70 % Adv.work, 1st Year Operation.	SMC	33.00	221211	7299963	0	0	0	0	0	0	0	0	0	0	7299963
1st Year 30 % Advance work Current year plantation			87918	0	2901294	0	0	0	0	0	0	0	0	0	2901294
2nd Year operation Maintenance of one year old plantation.			61130	0	0	2017290	0	0	0	0	0	0	0	0	2017290
3rd Year operation Maintenance of 2 years old plantation.			47852	0	0	0	1579116	0	0	0	0	0	0	0	1579116
4th year operation Maint. of 3 years old plantation.			16632	0	0	0	0	548856	0	0	0	0	0	0	548856
5th year operation Maint. of 4 years old plantation.			8910	0	0	0	0	0	294030	0	0	0	0	0	294030
6th year operation Maint. of 5 years old plantation.			9467	0	0	0	0	0	0	312411	0	0	0	0	312411
7th year operation Maint. of 6 years old plantation.			10024	0	0	0	0	0	0	0	330792	0	0	0	330792
8th year operation Maint. of 7 years old plantation.			10581	0	0	0	0	0	0	0	0	349157	0	0	349157
9th year operation Maint. of 8 years old plantation.			11138	0	0	0	0	0	0	0	0	0	367554	0	367554
10th year operation Maint. of 9 years old plantation.			11695	0	0	0	0	0	0	0	0	0	0	385935	385935
SUB Total (+/- 2)			496558	7299963	2901294	2017290	1579116	548856	294030	312411	330792	349157	367554	385935	16386398
The Cost of Supervision / Subsequent/Silvicultural operation (20%)			99311	-	-	-	-	-	-	-	-	-	-	-	3277280
GRAND Total			595869	7299963	2901294	2017290	1579116	548856	294030	312411	330792	349157	367554	385935	19663677

(Dr.C.M.Shanadre )  
Dy. Conservator of Forest  
Gandhinagar Forest Division  
Gandhinagar

04 OCT 2022

**Diversion of 16.20 Ha. for Road  
widening- K7 to Radheja to Balva**

CA Land- 33.00 Ha  
Satalasana Dist- Mahesana  
Sr No 375 (Old Sr No 139)  
Range- Dharoi  
F.S/Coupe No. 11/06 & 05pali

24° 1'32.61"N, 72° 49'20.32"E

24° 1'18.13"N, 72° 49'17.60"E

24° 1'21.40"N, 72° 49'45.43"E

24° 1'18.86"N, 72° 49'43.02"E



600 m

(DR. C. M. SHANADRE)  
Dy. Conservator of Forest  
Gandhinagar Division  
Gandhinagar

04 OCT 2022

Google Earth

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