

## Compensary Afforestation Scheme for double degraded area

A Proposal for the approval to lay Drinking Water Pipeline on Forest alnd for non-forest purpose on KH Road, G Road, CH Road, NH Road, NH 8C, Road no.2, Road no.3, Road no.5, Road no.6 in Gandhinagar.

Detailed scheme of Compensatory Afforestation for degraded area **20.00 ha.** to be carried out in lieu of **9.9372 ha.** of Protected forest land to be diverted in Gandhinagar district.

### 1. Details of degraded land.

Village	Satlasana
Taluka	Satlasana
Range	Dharoi
District	Mahesana
Division	Gandhinagar
Block/ Patal, Compartment No.	120 Paiki
Area to be afforested	<b>20.00 Ha.</b>
Working circle	

### 2. Description of Area.

Soil type	Murrumy
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 degraded 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>20.00 ha.</b> area. The total afforestation cost will be about <b>Rs.89,93,480/-</b> Executive Engineer, R&B, Division No.26, 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:-

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 <b>324.50</b> per day.																					
b	Spacement	3 X 3 mtr., 1111 plants per ha.																					
c	Species to be planted (No. of plants per ha.)	<table border="1"> <thead> <tr> <th>Species to be Plants</th><th>Nos.</th><th>Plants Hights</th></tr> </thead> <tbody> <tr> <td>Neem</td><td>300</td><td>75 cm</td></tr> <tr> <td>Babool</td><td>400</td><td>65 cm</td></tr> <tr> <td>Bamboo</td><td>100</td><td>65 cm</td></tr> <tr> <td>Kanji</td><td>200</td><td>75 cm</td></tr> <tr> <td>Arjun Sadad</td><td>100</td><td>90 cm</td></tr> <tr> <td><b>Total</b></td><td><b>1111</b></td><td></td></tr> </tbody> </table>	Species to be Plants	Nos.	Plants Hights	Neem	300	75 cm	Babool	400	65 cm	Bamboo	100	65 cm	Kanji	200	75 cm	Arjun Sadad	100	90 cm	<b>Total</b>	<b>1111</b>	
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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	(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.																					

95

l	Proposed monitoring mechanism	<p>(i) A plantation register is to be maintained.</p> <p>(ii) Monitoring is to be done as per the following norms. Forester – 100% RFO – 100% ACF – 20% DCF – 10%</p> <p>(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.</p> <p>(iv) The collar girth is also to be reordered at the end of each year.</p> <p>(v) 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>(vi) Bamboo would be of the harvestable size by the end of 4<sup>th</sup> year.</p> <p>(vii) 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  
 Gandhinagar Division  
 Gandhinagar

The Compensatory Afforestation scheme at the cost of **Rs.89,93,480/-** is technically and administrative approved by the undersigned.

  
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 Gandhinagar Division  
 Gandhinagar



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**Daily wages Rs. 324.5**

Spacings = 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	1914	1914
(b) labour : Preparation of beds, filling and arranging of bags, sowing of seeds, watering, shifting, weeding etc.	1222	4681	242	4923
(c) Seedling cost for casualty replacement in one year old (20%)	222	1478	443	1921
(d) Seedling cost for casualty replacement in two year old (10%)	111	741	220	961
<b>Total</b>		<b>6300</b>	<b>2819</b>	<b>9720</b>
<b>2. Area Development ( Land Preparation )</b>				
(a) Survey, cutback and promotion of root suckers		3518	0	3518
(b) Alignment and digging of pits 0.45 X 0.45 X 0.45	1111@ 6.00	10157	0	10157
<b>Total</b>		<b>13675</b>	<b>0</b>	<b>13675</b>
(a) Natural fertilizer (Neem cake/ Castor cake)	1111 @ 5.00	0	10361	10361
<b>Total</b>		<b>0</b>	<b>10361</b>	<b>10361</b>
<b>3. SMC Works</b>				
(a) Check wall/ retaining wall /checkdam (all pucca only)	L.S.	12495	24804	37299
(b) Contour trench 2 M x 45 Cm x 30 Cm as per Rs.17.00/rmt	600 rmt.	9511	0	9511
<b>Total</b>		<b>22006</b>	<b>24804</b>	<b>46810</b>

<b>4. Protection</b>				
(a) Barbed wire fencing	L.S.	3730	37299	41029
(b) Seed sowing and planting of cuttings of Ipomea/ Glaricidia along the fence		1160	498	1658
<b>Total</b>		<b>4890</b>	<b>37797</b>	<b>42687</b>
<b>Sub Total of 0 year</b>		<b>47471</b>	<b>75781</b>	<b>123252</b>
<b>1st Year</b>				
(a) Maintenance of nursery (April to June)	1222	3591	358	3949
(b) Transport of seedling for plantation	1111	1970	407	2377
(c) Planting with khamna of Min 1 m dia	1111	6054	0	6054
(d) Transport of seedling for casualty replacement	111	210	47	258
(e) 3 weeding cum soil working	1111	23600	0	23600
(f) Support watering 5 times @ 3.25		15086	21647	36733
(g) Protection / tending operation		4883	0	4883
(h) Tending to natural vegetation		1221	0	1221
(i) Contingency		0	1221	1221
<b>Total for 1st year</b>		<b>56615</b>	<b>23680</b>	<b>80294</b>
<b>2nd Year</b>				
(a) 2 weeding & soil working		13107	0	13107
(b) 20 % Casually replcement, transport and planting	111+111	220	1097	1317
(c) Natural fertilizer (neem cake / caster cake ) etc.	Rs.5/ plant	0	12244	12244
(d ) Support watering 3 times @ 3.25		9803	14070	23873
(e) Protection / tending operation		5290	0	5290
<b>Total for 2nd year</b>		<b>28420</b>	<b>27411</b>	<b>55831</b>
<b>3rd Year</b>				
(a) 2 weeding & soil working		14116	0	14116
(b) 10 % Casually replcement, transport and planting	111	119	592	710
(c) Natural fertilizer, neem cake etc.	Rs.5/ plant	0	13185	13185
(d ) Support watering 1 times @ 3.25		3520	5051	8570
(e) Protection & maintenance of fencing / tending operation	L.S.	7121	0	7121
<b>Total for 3rd year</b>		<b>24875</b>	<b>18327</b>	<b>43702</b>
<b>4th Year</b>				
(a) 1 weeding & soil working		7561	0	7561
(b) Protection & Maintenance of fencing/ Tending	L.S.	7629	0	7629
<b>Total for 4th year</b>		<b>15191</b>	<b>0</b>	<b>15191</b>
<b>5th Year</b>				
Protection & maintenance of fencing/ tending operation	L.S.	8138	0	8138
<b>Total for 5th year</b>		<b>8138</b>	<b>0</b>	<b>8138</b>




<b>6thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	8647	0	8647
<b>Total for 6th year</b>		<b>8647</b>	<b>0</b>	<b>8647</b>
<b>7thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	9155	0	9155
<b>Total for 7th year</b>		<b>9155</b>	<b>0</b>	<b>9155</b>
<b>8thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	9664	0	9664
<b>Total for 8th year</b>		<b>9664</b>	<b>0</b>	<b>9664</b>
<b>9thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	10172	0	10172
<b>Total for 9th year</b>		<b>10172</b>	<b>0</b>	<b>10172</b>
<b>10thYear</b>				
Protection & maintenance of fencing/ tending operation	L.S.	10681	0	10681
<b>Total for 10th year</b>		<b>10681</b>	<b>0</b>	<b>10681</b>
<b>SUB TOTAL :</b>		<b>229029</b>	<b>145699</b>	<b>374728</b>
The Cost of Supervision/subsequential silvicultureal Operations	20%	45806	29140	74946
<b>GRAND TOTAL :</b>		<b>274834</b>	<b>174839</b>	<b>449674</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.

1 Ha cost, Rs. 449674 X 20.0 Ha. = **Total Cost Rs. : 89,93,480/-**

  
**Dy. Conservator of Forest**  
**Gandhinagar Division**  
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Name of works	Model No.	Area	Rate per	Amount (Daily wage: Rs.324.50)											
		H.A.	Hac.	Zero Year Rs.	Ist 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.	Total Rs.
0 Year 70 % Adv.work. Ist Year Operation.	SMC	20.00	123252	2465040	0	0	0	0	0	0	0	0	0	0	2465040
Ist Year 30 % Advance work Current year plantation			80294	0	1605880	0	0	0	0	0	0	0	0	0	1605880
2nd Year operation Maintenance of one year old plantation.			55831	0	0	1116620	0	0	0	0	0	0	0	0	1116620
3rd Year operation Maintenance of 2 years old plantation.			43702	0	0	0	874040	0	0	0	0	0	0	0	874040
4th year operation Maint.of 3 years old plantation.			15191	0	0	0	0	303820	0	0	0	0	0	0	303820
5th year operation Maint.of 4 years old plantation.			8138	0	0	0	0	0	162762	0	0	0	0	0	162762
6th year operation Maint.of 5 years old plantation.			8647	0	0	0	0	0	0	172942	0	0	0	0	172942
7th year operation Maint.of 6 years old plantation.			9155	0	0	0	0	0	0	0	183102	0	0	0	183102
8th year operation Maint.of 7 years old plantation.			9664	0	0	0	0	0	0	0	0	193281	0	0	193281
9th year operation Maint.of 8 years old plantation.			10173	0	0	0	0	0	0	0	0	0	203460	0	203460
10th year operation Maint.of 9 years old plantation.			10681	0	0	0	0	0	0	0	0	0	0	213620	213620
SUB Total (+/- 2)			374728	2465040	1605880	1116620	874040	303820	162762	172942	183102	193281	203460	213620	7494567
The Cost of Supervision/Subsequent/Silvi cultural operation (20%)			74946	-	-	-	-	-	-	-	-	-	-	-	1498913
GRAND Total			449674	2465040	1605880	1116620	874040	303820	162762	172942	183102	193281	203460	213620	8993480

  
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