

Compensary Afforestation Scheme for double degraded area

A Proposal for diversion of (Area 0.0915 Ha.) forest land for Non-Forest purpose for laying of 250 mm Dia Steel Water Pipeline by GIDC along and Across on various roads of gnadhinagar in village Adiwada Taluka Gandhinagar of district Gnadhinagar.

Detailed scheme of Compensatory Afforestation for degraded area **1.00** ha. to be carried out in lieu of **0.0915** ha. of Protected forest land to be diverted in Gandhinagar district.

1. Details of degraded land.

Village	Fudeda
Taluka	Vijapur
Range	Mansa
District	Gandhinagar
Division	Gandhinagar
Block/ Patal, Compartment No.	699 paiki
Areato be afforested	1.00 Ha.
Working circle	F.S.9/Coup No. 7 Paiki WC-AWC

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 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 1.00 ha. area. The total afforestation cost will be about Rs.5,95,869/- Executive Engineer, Gujarat Industrial Development Corporation, Ahmedabad has given an undertaking to pay the cost of Compensatory Afforestation as per the prevailing wages (including the price escalation and supervision charges).


10. Technical Details:-

Technical details of Compensatory Afforestation are as Follows:


S.N.	Details	Specifications
a	General Details	The C.A. will be taken under Compensatory Afforestation for Non forest area. The prevailing wage rate is 355.30 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>Sr.No.</th><th>Species to be Plants</th><th>Nos.</th><th>Plants Hights</th></tr> </thead> <tbody> <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> </tbody> </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 st year three weeding soil working, Support watering will be provided if needed. 2 nd year two weeding soil working. 3 rd year one weeding soil working.																																																																					
j	Maintenance	It is proposed to maintain the Plantation up to ten years.																																																																					
k	Subsequent	Cleaning, cutbacks, thinning etc. (as per species specific																																																																					

	silvicultural Operation	requirement) will be carried out at the age as per prescribed in the working plan.
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.</p> <p>Forester - 100%</p> <p>RFO - 100%</p> <p>ACF - 20%</p> <p>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) 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>(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.</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.


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

The Compensatory Afforestation scheme at the cost of **Rs.5,95,869/-** is technically and administrative approved by the undersigned.


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Gandhinagar Forest Division
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23 JAN 2023

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Detailed scheme of Compensatory Afforestation for degraded area 1.00 ha. to be carried out in lieu of 0.0915 ha. of Protected forest land to be diverted in Gandhinagar 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
0 year				
Nursery				
(a) Cost of soil, manure, seeds, water, fertillizer, 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
Total		7555	3087	10642
2. Area Development (Land Preparation)				
(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
Total		14973	0	14973
(a) Natural fertilizer (Neem cake/ Castor cake)	1111 @ 5.00	0	11344	11344
Total		0	11344	11344
3. SMC Works				
(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
Total		24095	27158	51253
4. Protection				
(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
Total		14389	118610	132999
Sub Total of 0 year		61012	160199	221211
1st Year				
(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 seediling 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
Total for 1st year		61989	25929	87918

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


Note :-

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

Compensatory afforestation will be done in 1.00 ha. Area.

Par Cost	Rs.	Ha.
1 Ha cost	595869.00	1.00

The Total
Total Cost Rs.
595869.00


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Name of works	Model No.	Area (Ha.)	Rate per (Ha.)	Amount (Daily wage: Rs.355.30)											Total Rs.
				Zero Year Rs.	1st Year Rs.	2nd Year Rs.	3rd Year Rs.	4th Year Rs.	5th Year Rs.	6th Year Rs.	7th Year Rs.	8th Year Rs.	9th Year Rs.	10th 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

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