

Compensary Afforestation Scheme for double degraded area

A Proposal for the approval of Forest land Proposed to be diverted for non forest purposes for under at sector-22/23 & 22/21 for Smooth Traffic Flow in Gandhinagar city.

Detailed scheme of Compensatory Afforestation for degraded area **2.00 ha.** to be carried out in lieu of **0.600 ha.** of Protected forest land to be diverted in Gandhinagar district.

1. Details of degraded land.

Village	Mahudi
Taluka	Mansa
Range	Mansa
District	Gandhinagar
Division	Gandhinagar
Block/ Patal, Compartment No.	1 Paiki
Area to be afforested	02.00 Ha.
Working circle	MC Coupe- VIII/ 8

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 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 02.00 ha. area. The total afforestation cost will be about Rs.9,42,788/- AGM, Gujarat State Petronet Ltd., GSPL Bhavan, E-18, GIDC Electronics Estate, Sector-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 340.20 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 Planted</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>Total</td><td>1111</td><td></td></tr> </tbody> </table>	Species to be Planted	Nos.	Plants Hights	Neem	300	75 cm	Babool	400	65 cm	Bamboo	100	65 cm	Kanji	200	75 cm	Arjun Sadad	100	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 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.																					

1	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) The collar girth is also to be reordered at the end of each year. (v) At the end of maintenance period, the area is aimed at full stocking and pole crop girth for all the species, except bamboo. (vi) Bamboo would be of the harvestable size by the end of 4th year. (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.
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.9,42,788/-** is technically and administrative approved by the undersigned.


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12 JUN 2021

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Daily wages Rs.340.20

Spaciments = 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, fertilizer, insecticides, implements, rent of lands, Shade, etc. (including 10 % for casualty replacement)	1222	0	2007	2007
(b) labour : Preparation of beds, filling and arranging of bags, showing of seeds, watering shifting, weeding etc.	1222	4907	254	5161
(c) Seedling cost for casualty replacement in one year old (20%)	222	1550	464	2014
(d) Seedling cost for casualty replacement in two year old (10%)	111	777	231	1008
Total		7234	2956	10190
2. Area Development (Land Preparation)				
(a) Survey, cutback and promotion of root suckers		3688	0	3688
(b) Alignment and digging of pits 0.45 X 0.45 X 0.45	1111 @ 6.00	10648	0	10648
Total		14336	0	14336
(a) Natural fertilizer (Neem cake/ Castor cake)	1111 @ 5.00	0	10862	10862
Total		0	10862	10862
3. SMC Works				
(a) Check wall/ retaining wall /checkdem (all pucca only)	L.S.	13100	26004	39104
(b) Contour trench 2 M x 45 Cm x 30 Cm as per Rs.17.00/rmt	600 rmt	9971	0	9971
Total		23071	26004	49075
4. Protection				
(a) Barbed wire fencing	L.S.	3879	39104	42983
(b) Seed sowing and planting of cuttings of Ipomea/ Glaricidia along the fence		1216	522	1738
Total		5095	39626	44721
Sub Total of 0 year		49736	79448	129184
1st Year				
(a) Maintenance of nursery (April to June)	1222	3765	375	4140
(b) Transport of seedling for plantation	1111	2065	427	2492
(c) Planting with khamna of Min 1 m dia	1111	6347	0	6347
(d) Transport of seedling for casualty replacement	111	220	49	269
(e) 3 weeding cum soil working	1111	24742	0	24742
(f) Support watering 5 times @ 3.25		15816	22694	38510
(g) Protection / tending operation		5119	0	5119
(h) Tending to natural vegetation		1280	0	1280
(i) Contingency		0	1280	1280
Total for 1st year		59354	24825	84179
2nd Year				
(a) 2 weeding & soil working		13741	0	13741
(b) 20 % Casualty replacement, transport and planting	111+111	231	1150	1381
(c) Natural fertilizer (neem cake / castor cake) etc.	Rs.5/ plant	0	12836	12836
(d) Support watering 3 times @ 3.25		10277	14751	25028
(e) Protection / tending operation		5546	0	5546
Total for 2nd year		29795	28737	58532

3rd Year					
(a) 2 weeding & soil working			14799	0	14799
(b) 10 % Casually replacement, transport and planting		111	125	621	746
(c) Natural fertilizer, neem cake etc.	Rs.5/ plant		0	13823	13823
(d) Support watering 1 times @ 3.25			3690	5295	8985
(e) Protection & maintenance of fencing / tending operation	L.S.		7466	0	7466
Total for 3rd year			26080	19739	45819
4th Year					
(a) 1 weeding & soil working			7927	0	7927
(b) Protection & Maintenance of fencing/ Tending operation	L.S.		7998	0	7998
Total for 4th year			15925	0	15925
5th Year					
Protection & maintenance of fencing/ tending operation	L.S.		8532	0	8532
Total for 5th year			8532	0	8532
6th Year					
Protection & maintenance of fencing/ tending operation	L.S.		9065	0	9065
Total for 6th year			9065	0	9065
7th Year					
Protection & maintenance of fencing/ tending operation	L.S.		9598	0	9598
Total for 7th year			9598	0	9598
8th Year					
Protection & maintenance of fencing/ tending operation	L.S.		10132	0	10132
Total for 8th year			10132	0	10132
9th Year					
Protection & maintenance of fencing/ tending operation	L.S.		10664	0	10664
Total for 9th year			10664	0	10664
10th Year					
Protection & maintenance of fencing/ tending operation	L.S.		11198	0	11198
Total for 10th year			11198	0	11198
Sub Total of 1 to 10 year			190343	73301	263644
SUB TOTAL:			240079	152749	392828
The Cost of Supervision/subsequential silvicultural Operations	20%		48016	30550	78566
GRAND TOTAL:			288095	183299	471394

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. The Total afforestation cost will be Rs. 471394/-

Par Cost	Rs.	Ha.	Total Cost Rs.
1 Ha cost	471394.00	2.00	942788.00


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Name of works	Model No.	Area (Ha.)	Rate per (Ha.)	Amount (Daily wage: Rs.340.20)											
				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	2.00	129184	258368	0	0	0	0	0	0	0	0	0	0	258368
Ist Year 30 % Advance work Current year plantation			84179	0	168358	0	0	0	0	0	0	0	0	0	168358
2nd Year operation Maintanance of one year old plantation.			58532	0	0	117064	0	0	0	0	0	0	0	0	117064
3rd Year operation Maintanance of 2 years old plantation.			45019	0	0	0	91638	0	0	0	0	0	0	0	91638
4th year operation Maint. of 3 years old plantation.			15925	0	0	0	0	31850	0	0	0	0	0	0	31850
5th year operation Maint. of 4 years old plantation.			8532	0	0	0	0	0	17064	0	0	0	0	0	17064
6th year operation Maint. of 5 years old plantation.			9065	0	0	0	0	0	0	18130	0	0	0	0	18130
7th year operation Maint. of 6 years old plantation.			9598	0	0	0	0	0	0	0	19196	0	0	0	19196
8th year operation Maint. of 7 years old plantation.			10132	0	0	0	0	0	0	0	0	20264	0	0	20264
9th year operation Maint. of 8 years old plantation.			10664	0	0	0	0	0	0	0	0	0	21328	0	21328
10th year operation Maint. of 9 years old plantation.			11190	0	0	0	0	0	0	0	0	0	0	22396	22396
SUB Total (+/- 2)			392828	258368	168358	117064	91638	31850	17064	18130	19196	20264	21328	22396	785656
The Cost of Supervision / Subsequent/Silvicultural operation (20%)			78566	-	-	-	-	-	-	-	-	-	-	-	157131
GRAND Total			471394	258368	168358	117064	91638	31850	17064	18130	19196	20264	21328	22396	942787

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