

Compensary Afforestation Scheme for Non Forest Land

A proposal under forest conservation act 1980 proposal for construction of barrage and road across in sabarmati river (**area 10.19 ha.**) Near hirpura taluka vijapur of mehsana district

Detailed scheme of Compensatory Afforestation for degraded area 10.19 ha. to be carried out in lieu of 10.19 ha. of Reserved forest land to be diverted in Mahesana district.

1. Details of degraded land.

Village	Rangpur(Gadh)
Taluka	Satlasana
Range	Dharoi
District	Mahesana
Division	Gandhinagar
Block/ Patal, Compartment No.	297 (Old S.No.65)
Area to be afforested	10.19 Ha.
Working circle	Govt. Land

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 10.19 ha. area. The total afforestation cost will be about Rs.48,03,505/- Executive Engineer, Dharoi Canal Division-3, Mehasana 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 Non Forest 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><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 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.
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
25 APR 2022

The Compensatory Afforestation scheme at the cost of Rs.48,03,505/- is technically and administrative approved by the undersigned.


(Dr.C.M.SHANADRE)
Dy. Conservator of Forest
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25 APR 2022

Sub:- A proposal under forest conservation act 1980 proposal for construction of barrage and road across in sabarmati river (area 10.19 ha.) Near hirpura taluka vijapur of mehsana district. Detailed scheme of Compensatory Afforestation for degraded area 10.19 ha. to be carried out in lieu of 10.19 ha. of Reserved forest land to be diverted in Mahesana district.

Daily wages Rs.340.20

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	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) Aligment 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) Contigency		0	1280	1280
Total for 1st year		59354	24825	84179
2nd Year				
(a) 2 weeding & soil working		13741	0	13741
(b) 20 % Casually replcement, transport and planting	111+111	231	1150	1381
(c) Natural fertilizer (neem cake / caster 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 replcement, 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 silvicultureal 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

Compensatory afforestation cost is in 1.00 ha. Area. The Total afforestation cost will be Rs. 471394/- par Ha.

Cost	Rs.	Ha.	Total Cost Rs.
1 Ha cost	471394.00	10.19	4803504.86

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Name of works	Model No.	Area (Ha.)	Rate per (Ha.)	Amount (Daily wage: Rs.340.20)										Total Rs.
				Zero Year Rs.	Ist Year Rs.	IInd Year Rs.	III rd Year Rs.	IVth Year Rs.	Vth Year Rs.	VIIIth Year Rs.	IXth Year Rs.	Xth Year Rs.	Total Rs.	
0 Year 70 % Adv work. Ist Year Operation.	SMC	10.19	129184	1316388	0	0	0	0	0	0	0	0	1316388	
Ist Year 30 % Advance work Current year plantation			84179	0	857784		0	0	0	0	0	0	857784	
2nd Year operation Maintenance of one year old plantation.			58532	0	0	596441	0	0	0	0	0	0	596441	
3rd Year operation Maintenance of 2 years old plantation.			45819	0	0	0	466896	0	0	0	0	0	466896	
4th year operation Maint of 3 years old plantation.			15925	0	0	0	0	162276	0	0	0	0	162276	
5th year operation Maint of 4 years old plantation.			8532	0	0	0	0	0	86941	0	0	0	86941	
6th year operation Maint of 5 years old plantation.			9065	0	0	0	0	0	0	92372	0	0	92372	
7th year operation Maint of 6 years old plantation.			9598	0	0	0	0	0	0	97804	0	0	97804	
8th year operation Maint of 7 years old plantation.			10132	0	0	0	0	0	0	0	103245	0	103245	
9th year operation Maint of 8 years old plantation.			10664	0	0	0	0	0	0	0	108666	0	108666	
10th year operation Maint of 9 years old plantation.			11198	0	0	0	0	0	0	0	0	114108	114108	
SUB Total (+/- 2)			392828	1316388	857784	596441	466896	162276	86941	92372	97804	103245	108666	4002920
The Cost of Supervision / Subsequent/Silvicultural operation (20%)			78566											800584
GRAND Total			471394	1316388	857784	596441	466896	162276	86941	92372	97804	103245	108666	4803505

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