

Annexure-19**Compensary Afforestation Scheme for double degraded area**

Proposal for Permission for laying of 300 did Water pipeline for Providing water from Dena Branch Canal to Wise President Sun Pharma DF Plant at Halol In Halol Taluka of Panchmahal District(Total Length 0.97 KM/0.0485 Ha.)

Detailed scheme of Compensatory Afforestation for degraded area 1.00 ha.to be carried out in lieu of 0.0485 ha. of Protected forest land to be diverted in Taluka-Kadana, Dist-Mahisagar of Gujarat State.

1. Details of degraded land.

Village	Kaliyari
Taluka	Kadana
Range	Ditwas
District	Mahisagar
Division	Lunawada
Block/ Patal, Compartment No.	37 Pt.
Areato be afforested	1.00 Ha.
Working circle	Afforestation Working Circle

2. Description of Area.

Soil type	Soft rock& Black soil
Topography	Plain
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.

Details of Year Wise Break-Up requirement of fund is as under

Daily / Wages Rs.340.20

Year	Area (ha)	Rate /ha	Total Amount
0 Year 70 %	1	178267	178267
1 st Year	1	84756	84756
2 nd Year	1	57486	57486
3 rd Year	1	47594	47594
4 th Year	1	16822	16822
5 th Year	1	8920	8920
6 th Year	1	9477	9477
7 th Year	1	10035	10035
8 th Year	1	10591	10591
9 th Year	1	11149	11149
10 th Year	1	11707	11707
Total	1	446804	446804
Supervision Charge 20 %	1	89361	89361
Total	1	536165	536165
Say			5,36,165/-

Compensatory Afforestation will be done in 1.00 ha. Area. The total afforestation cost will be Rs.5,36,165/-

4. Schedule of Plantation Programme:-

- | | |
|------|---|
| (i) | The Compensatory Afforestation on degraded area would be started by Dy.Conservator of Forest Mahisagar-Lunawada 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.5,36,165/- Wise President Sun Pharma DF Plant Halol 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.)	Khair 180 65 cm
		Kanaji 70 75 cm
		Bamboo 40 65 cm
		Bahedo 20 90 cm
		Sadal 20 90 cm
		Mahuda 21 75 cm
		Garmado 200 65 cm
		Karanj 260 65 cm
		Etc. 300 75 cm
		Total 1111 55cm
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) 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 4 th 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.



(R.B. Patel)

Deputy Conservator of Forest
Mahisagar Division
Lunawada

The Compensatory Afforestation scheme at the cost of Rs. 5,36,165/- is technically and administrative approved by the undersigned.



(R.B. Patel)

Deputy Conservator of Forest
Mahisagar Division
Lunawada

Compensatory Afforestation Scheme for Non- Forest land Under FCA Proposal

Details scheme of Compensatory Afforestation in Permission for laying of 300 did water pipeline for providing water from Dena Branch Canal to Sun Pharma DF Plant at Halol In Halol Taluka of Panchmahal District(Total Length 0.97 KM/0.0485 Ha.)

Spacemnts = 3mx3m

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

Wage rate: 340.20/Day

	Plau ground	Qty.	Labour	Material	Totals
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	1815	1815
(b)	labour : Preparation of beds, filling and arranging of bags, showing of seeds, watering shifting, weeding etc.	1222	4863	230	5093
	Seedling cost for casualty replacement in one year old (20 %)	222	1537	419	1956
	Seedling cost for casualty replacement in two year old (10%)	111	770	209	979
	Total		7170	2673	9843
2. Area Development (Land Preparation)					
(a)	Survey, cutback and promotion of root suckers		3824	0	3824
	Alignent and digging of pits 0.45 X 0.45 X 0.45	1111@8.84	10662	0	10662
	Total		14486	0	14486
(a)	Natural Fertilizer (Neem cake/ Castor cake)	1111@10	0	11110	11110
	Total		0	11110	11110
3. SMC Works					
(a)	Check wall/ retaining wall /checkdem (all pucca only)	L.S	13585	23535	37120
(b)	Contour trench 2 M x 45 Cm x 30 Cm as per Rs.51.75/rmt (300 trench)	600rmt	10340	0	10340
(c)	Van Talavadi/Hill Top Tank/Percolation tank/Nala bund,Gully Plug etc.		10960	0	10000
	Total		34885	23535	57460
4. Protection					
(a)	Barbed wire fencing (205 rmt/ Ha. , Rs. 400/- per Rmt)	L.S	7672	75000	82000
(b)	Seed sowing and planting of cuttings of Ipomea/ Glaricidia along the fence		1263	473	1736
	Total		8935	75473	83736
	Total for 0 year		65476	112791	178267
1st Year					
(a)	Maintenance of nursery (April to June)	1222	3904	340	4244
(b)	Transport of seedling for plantation	1111	1948	200	2148
(c)	Planting with khamna of Min. 1 m dia	1111	6581	0	6581
(d)	Transport & planting of seedling for casualty replacement	111	228	44	272
(e)	3 weeding cum soilworking	1111	26802	0	26802
(f)	Support watering 5 times @5.30		16401	20539	36940
(g)	Protection / tending operation		5284	0	5284
(h)	Tending to natural vegetation		1327	0	1327
(i)	Contingency		0	1158	1158
	Total for 1st year		62475	22281	84756

2nd Year					
(a)	2 weeding & soil working		14399	0	14399
(b)	20 % Casually replcement, transport and Planting	111+111	239	1041	1280
(c)	Natural fertilizer (neem cake / caster cake) etc	Rs. 10/plants	0	12048	12048
(d)	Support watering 3 times @ 5.30		10657	13351	24008
(e)	Protection / tending operation		5751	0	5751
	Total for 2nd Year		31046	26440	57486
3rd Year					
(a)	2 weeding & soil working		14399	0	14399
(b)	10 % Casually Replcement, transport and	111	254	555	809
(b)	Planting, Natural fertilizer, neem cake etc.	Rs. 10/plants	0	13332	13332
(c)	Support watering 1 times @6		4148	4120	8268
(d)	Protection & maintenance of fencing / tending Operation	L.S	10786	0	10786
	Total for 3rd year		29587	18007	47594
4thYear					
(a)	1 weeding & soilworking	L.S	6036	0	6036
(b)	Protection & Maintenance of fencing/ Tending operation		10786	0	10786
	Total for 4th Year		16822	0	16822
5thYear					
	Protection & maintenance of fencing/ tending operation	L.S	8920	0	8920
	Total for 5th Year		8920	0	8920
6thYear					
	Protection & maintenance of fencing/ tending operation	L.S	9477	0	9477
	Total for 6th Year		9477	0	9477
7 th Year					
	Protection & maintenance of fencing/ tending operation	L.S	10035	0	10035
	Total for 7th Year		10035	0	10035
8 th Year					
	Protection & maintenance of fencing/ tending operation	L.S	10591	0	10591
	Total for 8th Year		10591	0	10591
9 th Year					
	Protection & maintenance of fencing/ tending operation	L.S	11149	0	11149
	Total for 9th Year		11149	0	11149
10 th Year					
	Protection & maintenance of fencing/ tending operation	L.S	11707	0	11707
	Total for 10th Year		11707	0	11707
	Grand Total		267285	179519	446804
	The Cost of Supervision/Subsequential Silvicultural operations	20%	53457	35904	89361
			320742	215423	536165

Note :

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

Compensatory afforestation will be done in 1.00 Ha Area

Total Cost Rs. : 5,36,165/-


 Deputy Conservator of Forests,
 Mahisagar