

Compensary Afforestation Scheme for Double Degraded Area

Diversion of 1.308 protected forest land for construction of dedicated freight corridor the land is being acquired by Ministry of Railway in village Chadotra-Palanpur (ROB 6-PCL)

Detailed scheme of Compensatory Afforestation for Double degraded Area 3.00 ha. to be carried out in lieu of 1.308 ha. of forest land to be diverted in Social Forestry Division, Banaskantha-Palanpur.

1. Details of degraded land.

Village	Rampurvadala
Taluka	Palanpur
Range	Palanpur
District	Banaskantha
Division	Banaskantha
Block/ Patal, Compartment No., Survey No	5/ pt
Area to be afforested	3.00 Ha.
Working circle	Reboishment and watershed development working circle.

2. Description of Area.

Soil type	Hard Murram
Topography	Medium
Slope	Medium
Whether the area is bearing any root stock of Vegetation	Yes

3. Name of Plantation Programme:-

Compensatory Afforestation Scheme for Double degraded area

4. Schedule of Plantation Programme:-


(i)	The Compensatory Afforestation on Double degraded Area would be started by Dy. Conservator of Forest Banaskantha Division as early as possible after the proposal is formally approved.
(ii)	Compensatory Afforestation will be done in 3.00 ha. area. The total afforestation cost will be about Rs. 16,57,336 /- Dedicated Freight Corridor Corporation of India Ltd., Ahmedabad 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 degraded area. The prevailing wage rates 324.50 per day.			
b	Spacement	3 X 3 mtr., 1111 plants per ha.			
c	Species to be planted (No. of plants per ha.)	Speaces	Number of Tree	Minimum planting height (in cm.)	Minimum planting collar growth (in cm.)
		Khair	25	65	Minimum planting collar growth 1c.m. diameter at the time of planting.
		Kanji	250	75	
		Boradi	150	65	
		Salai	25	75	
		Gunda	25	75	
		Bael	50	50	
		Bamboo	100	65	
		Ardusa	100	90	
		Ragat Royado	25	50	
		Garmalo	200	65	
		Khakhro (Butea monosperma), Dudh kudi (Wrightia), Aval (Cassia auriculata)	161	50	
		Total	1111		
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 & percolation tank 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	<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 4th 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
 Banaskantha, Palanpur

The Compensatory Afforestation scheme at the cost of **Rs. 16,57,336** /- is technically and administrative approved by the undersigned.


 Dy. Conservator of Forest
 Banaskantha, Palanpur

Model No - 3

Compensatory Afforestation Scheme for Dubble dgraded area

Daily wages Rs.324.50

Spacements = 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	1913	1913
(b) labour : Preparation of beds, filling and arranging of bags,showing of seeds, watering shifting, weeding etc.	1222	4681	242	4923
(c) Seedling cost for casualty replacement in one year old (20%)	222	1478	442	1920
(d) Seedling cost for casualty replacement in two year old (10%)	111	740	220	960
Total		6899	2817	9716
2. Area Development (Land Preparation)				
(a) Survey, cutback and promotion of root suckers		3518	0	3518
(b) Aligment and digging of pits 0.45 X 0.45 X 0.45	1111 @ 6.00	10156	0	10156
Total		13674	0	13674
(a) Natural fertilizer (Neem cake/ Castor cake)	1111 @ 5.00	0	10360	10360
Total		0	10360	10360
3. SMC Works				
(a) Check wall/ retaining wall /checkdem (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 (300 trench)	600 rmt.	9512	0	9512
Total		22007	24804	46811
4. Protection				
(a) Barbed wire fencing per 1 rmt. 457/- Rs.	252 rmt.	50673	76008	126681
(b) Seed sowing and planting of cuttings of Ipomea/ Glaricidia along the fence		1161	498	1659
Total		51834	76506	128340
Total for 0 year		94414	114487	208901
1st Year				
(a) Maintenance of nursery (April to June)	1222	3590	359	3949
(b) Transport of seedling for plantation	1111	1970	407	2377
(c) Planting with khamna of Min 1 m dia	1111	6055	0	6055
(d)Transport & planting of seediling for casualty replacement	111	210	46	256
(e) 3 weeding cum soil working	1111	23600	0	23600
(f) Support watering 5 times @ 3.25		15085	21647	36732
(g) Protection / tending operation		4883	0	4883
(h) Tending to natural vegetation		1220	0	1220
(i) Contigency		0	1220	1220
Total for 1st year		56613	23679	80292

Item of work	Qty.	Labour	Material	Total
2nd Year				
(a) 2 weeding & soil working		13108	0	13108
(b) 20 % Casually replcement, transport and planting	111+111	221	1097	1318
(c) Natural fertilizer (neem cake / caster cake) etc.	Rs.5/ plant	0	12243	12243
(d) Support watering 3 times @ 3.25		9803	14070	23873
(e) Protection / tending operation		5290	0	5290
Total for 2nd year		28422	27410	55832
3rd Year				
(a) 2 weeding & soil working		14116	0	14116
(b) 10 % Casually replcement, transport and planting	111	119	591	710
(b) Natural fertilizer, neem cake etc.	Rs.5/ plant	0	13185	13185
(c) Support watering 1 times @ 3.25		3520	5051	8571
(d) Protection & maintenance of fencing / tending operation	L.S.	7120	0	7120
Total for 3rd year		24875	18827	43702
4thYear				
(a) 1 weeding & soil working		7560	0	7560
(b) Protection & Maintenance of fencing/ Tending operation	L.S.	7629	0	7629
Total for 4th year		15189	0	15189
5thYear				
Protection & maintenance of fencing/ tending operation	L.S.	8138	0	8138
Total for 5th year		8138	0	8138
6thYear				
Protection & maintenance of fencing/ tending operation	L.S.	8646	0	8646
Total for 6th year		8646	0	8646
7thYear				
Protection & maintenance of fencing/ tending operation	L.S.	9155	0	9155
Total for 7th year		9155	0	9155
8thYear				
Protection & maintenance of fencing/ tending operation	L.S.	9663	0	9663
Total for 8th year		9663	0	9663
9thYear				
Protection & maintenance of fencing/ tending operation	L.S.	10172	0	10172
Total for 9th year		10172	0	10172
10thYear				
Protection & maintenance of fencing/ tending operation	L.S.	10681	0	10681
Total for 10th year		10681	0	10681
SubTotal		275968	184403	460371
Total cost of supervision/subsequent silviculture operations	20%	55194	36881	92074
Grand Total		331162	221284	552445

Note :-

- (1) Seed sowing along fencing towards the inner side.
- (2) Planting of cutting of ipomea//Glaricidia along the fencing towards outer side



Dy. Conservator of Forests
Banaskantha, Palanpur
Model-3-1111 Final @310.40 (2)

Rate Structure for Compensatory Afforestation Scheme

Model-3 1111 Pt/Ha.

Sr. No.	Rate	Hactor	0 Year	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year	Total	20% Add	Grand Total
1	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A	Normal Rate par 1.00 Ha.	1.00	189909	66911	42948	31216	10126	5086	5086	5086	5086	5086	5086	371626	74325	445951
B	Increased Rate par 1.00 Ha. by 10% Year	1.00	208901	80292	55832	43702	15189	8138	8646	9155	9663	10172	10681	460371	92074	552445
2	A Normal Rate	3.0000	569727	200733	128844	93648	30378	15258	15258	15258	15258	15258	15258	1114878	222976	1337854
B	Increased by 10% Year	3.0000	626703	240876	167496	131106	45567	24414	25938	27465	28989	30516	32043	1381113	276223	1657336
														Total Cost Rs.		1657336

Daily Wages : Rs. 324.50

NB:(1)	For Different Years the rate shown for B has been derived from A as Follows.
0 Year-B=A +10% of A	6 Year-B=A +70% of A
1 Year-B=A +20% of A	7 Year-B=A +80% of A
2 Year-B=A +30% of A	8 Year-B=A +90% of A
3 Year-B=A +40% of A	9 Year-B=A +100% of A
4 Year-B=A +50% of A	10 Year-B=A +110% of A
5 Year-B=A +60% of A	
NB:(2)-	
In column 17 the additional 20% is towards the cost of supervision/subsequent silvicultural operations	

Dv. Conservator of Forests
Banaskantha, Palanpur

Name of works	Model No.	Area	Rate per	Amount												Total Rs.	
		H.A.	Hac.	0 Year	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year	20%		
0 Year 70 % Adv.work. 1st Year Operation.	Model-3	3.0000	208901	626703	0	0	0	0	0	0	0	0	0	0	0	125341	752044
1st Year 30 % Advance work Current year plantation			80292	0	240876	0	0	0	0	0	0	0	0	0	0	48175	289051
2nd Year operation Maintenance of one year old plantation.			55832	0	0	167496	0	0	0	0	0	0	0	0	0	33499	200995
3rd Year operation Maintenance of 2 years old plantation.			43702	0	0	0	131106	0	0	0	0	0	0	0	0	26221	157327
4th year operation Maint.of 3 years old plantation.			15189	0	0	0	0	45567	0	0	0	0	0	0	0	9113	54680
5th year operation Maint.of 4 years old plantation.			8138	0	0	0	0	0	24414	0	0	0	0	0	0	4883	29297
6th year operation Maint.of 5 years old plantation.			8646	0	0	0	0	0	0	25938	0	0	0	0	0	5188	31126
7th year operation Maint.of 6 years old plantation.			9155	0	0	0	0	0	0	0	27465	0	0	0	0	5493	32958
8th year operation Maint.of 7 years old plantation.			9663	0	0	0	0	0	0	0	0	28989	0	0	0	5798	34787
9th year operation Maint.of 8 years old plantation.			10172	0	0	0	0	0	0	0	0	0	30516	0	0	6103	36619
10th year operation Maint.of 9 years old plantation.			10681	0	0	0	0	0	0	0	0	0	0	32043	0	6409	38452
Total			460371	626703	240876	167496	131106	45567	24414	25938	27465	28989	30516	32043	276222.6	1657336	


Dy. Conservator of Forests
Banaskantha, Palanpur

CERTIFICATE

This is to certify that the compensatory afforestation scheme attached herewith for 3.00 ha in Rampuravadala Village, Ta. Palanpur, Survey No. 5pt. in lieu 1.308 ha. Diversion of protected forest land for construction of dedicated freight corridor the land is being acquired by Ministry of Railway in village Chadotra-Palanpur with the guidelines issued vide additional Principal Chief Conservator of Forests, Land Gujarat State Gandhinagar Letter No. land/31/b/147-216/2016-17, Dated.06/04/2016 and same is here by approved technically.

Palanpur

Date: 8/2/2021


Dy.Conservator of Forests,
Banaskantha-Palanpur