

Checklist No :-18

Detailed scheme of Compensatory Afforestation for Areas to be carried out in field of Non-forest land to be diversion of 4.04 Ha Forest land for Development SEZ utility and infrastructure crossing facilities in Mundra Ta. Mundra, Dist.Kutch in Gujarat.

Detail of Non-forest land area identify for Compensatory

<u>Sr. no.</u>	<u>District</u>	<u>Taluka</u>	<u>village</u>	<u>Survey no.</u>	<u>area (ha.)</u>	<u>Type of land</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>5</u>	<u>7</u>
1	Kachchh	Rapar	Badargadh	380p	4.04	Non Forest area
Total area					4.04	
Non-Forest area						

Place:-Bhuj-Kachchh.

Date:- 24/02/2020



(P.A.Vihol)

Dy Conservator of Forest
Kachchh East Division, Bhuj.

Compensatory Afforestation Scheme for Non forest land area

Compensatory Afforestation Areas to be carried out in field of forest land to be diversion of 4.04 Ha Forest land for Development SEZ utility and infrastructure crossing facilities in Mundra Ta. Mundra, Dist.Kutch in Gujarat

Detailed scheme of Compensatory Afforestation for 4.04 ha Non-forest area. carried out demanded of 4.04 ha Reserved forest land in mundra Taluka of Kutch district.

1. Details of Non-forest land.

Village	Badargadh
Taluka	Rapar
Range	Rapar south
District	Kutch
Division	Kutch East
Block/ Patal, Compartment No.	380 p.
Area to be afforested	4.04 Ha.
Working circle	-

2. Description of Area.

Soil type	Black & Starey
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 Non-Forest area.

4. Schedule of Plantation Programme:-

(i)	The Compensatory Afforestation on Non-Forest area would be started by Dy.Conservator of Forest Kutch East Division as early as possible after the proposal is formally approved.
(ii)	Compensatory Afforestation will be done in 4.04 ha.area. The total afforestation cost will be about Rs. 18, 34,682 /- Adani Port and SEZ Ltd. 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. The prevailing wage rate is 310.40 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"> <tr> <td>Gundi</td><td>211</td><td rowspan="7">Minimum planting height will be 100 cm. at the time of planting. However it will vary for different species.</td></tr> <tr> <td>Neem</td><td>250</td></tr> <tr> <td>Pilu</td><td>225</td></tr> <tr> <td>Khijado</td><td>150</td></tr> <tr> <td>DeshiBaval</td><td>225</td></tr> <tr> <td>Chhini Lai(Tamarixaphylla)</td><td>50</td></tr> <tr> <td>Total</td><td>1111</td></tr> </table>	Gundi	211	Minimum planting height will be 100 cm. at the time of planting. However it will vary for different species.	Neem	250	Pilu	225	Khijado	150	DeshiBaval	225	Chhini Lai(Tamarixaphylla)	50	Total	1111
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Chhini Lai(Tamarixaphylla)	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 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 4th year. (vii) Third party monitoring mechanism is also in the State and if the plantations 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.

(P.A.Vihol)

Dy Conservator of Forest
Kachchh East Division, Bhuj.

The Compensatory Afforestation scheme at the cost of Rs. 18, 34, 682 /- is technically and administrative approved by the undersigned.

(P.A.Vihol)

Dy Conservator of Forest
Kachchh East Division, Bhuj.

Compensatory Afforestation Scheme for Non-Forest Areas to be carried out in field of forest land to be diversion of 4.04 Ha Forest land for Development SEZ utility and infrastructure crossing facilities in Mundra Ta. Mundra, Dist. Kutch in Gujarat Proposal Reg.

Daily wages Rs.310.40

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	1830	1830
(b) labour : Preparation of beds,filling and arranging of bags,showing of seeds,watering shifting,weeding etc.	1222	4478	232	4710
(c) Seedling cost for casualty replacement in one year old (20%)	222	1415	422	1837
(d) Seedling cost for casualty replacement in two year old (10%)	111	709	211	920
Total		6602	2695	9297
2. Area Development (Land Preparation)				
(a) Survey, cutback and promotion of root suckers		3364	0	3364
(b) Aligment and digging of pits 0.45 X 0.45 X 0.45	<u>1111@ 6.00</u>	9715	0	9715
Total		13079	0	13079
(a) Natural fertilizer (Neem cake/ Castor cake)	<u>1111 @ 5.00</u>	0	9910	9910
Total		0	9910	9910
3. SMC Works				
(a) Check wall/ retaining wall /checkdem (all pucca only)	L.S.	11953	23726	35679
(b) Contour trench 2 M x 45 Cm x 30 Cm as per Rs.17.00/rmt (300 trench)	600 rmt.	9097	0	9097
Total		21050	23726	44776
4. Protection				
(a) Barbed wire fencing	L.S.	3568	35678	39246
(b) Seed sowing and planting of cuttings of Ipomea/ Glaricidia along the fence		1110	477	1587
Total		4678	36155	40833
Sub Total of 0 year		45409	72486	117895
1st Year				
(a) Maintenance of nursery (April to June)	1222	3435	343	3778
(b) Transport of seedling for plantation	1111	18594	389	18983
(c) Planting with khamna of Min 1 m dia	1111	5791	0	5791
(d)Transport of seediling for casualty replacement	111	201	44	245
(e) 3 weeding cum soil working	1111	23583	0	23583
(f) Support watering 5 times @ 3.25		14430	20706	35136
(g) Protection / tending operation		4644	0	4644
(h) Tending to natural vegetation		1167	0	1167
(i) Contingency		0	1167	1167
Total for 1st year		71845	22470	94494
2nd Year				
(a) 2 weeding & soil working		12669	0	12669
(b) 20 % Casually replcement, transport and planting	111+111	211	1049	1260

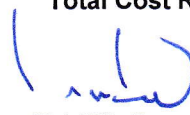
(c) Natural fertilizer (neem cake / caster cake) etc.	Rs.5/ plant	0	11711	11711
(d) Support watering 3 times @ 3.25		9377	13459	22836
(e) Protection / tending operation		5060	0	5060
Total for 2nd year		27317	26219	53536
3rd Year				
(a) 2 weeding & soil working		13372	0	13372
(b) 10 % Casually replacement, transport and planting	111	113	566	679
(c) Natural fertilizer, neem cake etc.	Rs.5/ plant	0	12838	12838
(d) Support watering 1 times @ 3.25		3367	4831	8198
(e) Protection & maintenance of fencing / tending operation	L.S.	8743	0	8743
Total for 3rd year		25595	18235	43830
4thYear				
(a) 1 weeding & soil working		7384	0	7384
(b) Protection & Maintenance of fencing/ Tending operation	L.S.	7298	0	7298
Total for 4th year		14682	0	14682
5thYear				
Protection & maintenance of fencing/ tending operation	L.S.	7785	0	7785
Total for 5th year		7785	0	7785
6thYear				
Protection & maintenance of fencing/ tending operation	L.S.	8271	0	8271
Total for 6th year		8271	0	8271
7thYear				
Protection & maintenance of fencing/ tending operation	L.S.	8758	0	8758
Total for 7th year		8758	0	8758
8thYear				
Protection & maintenance of fencing/ tending operation	L.S.	9243	0	9243
Total for 8th year		9243	0	9243
9thYear				
Protection & maintenance of fencing/ tending operation	L.S.	9730	0	9730
Total for 9th year		9730	0	9730
10thYear				
Protection & maintenance of fencing/ tending operation	L.S.	10217	0	10217
Total for 10th year		10217	0	10217
SUB TOTAL :		291379	139410	378441
The Cost of Supervision/subsequential silvicultueal Operations	20%	58276	27882	75688
		349655	167292	454129

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.

Total Cost Rs. :4,54,129/-



(P.A.Vihol)

Dy Conservator of Forest
Kachchh East Division, Bhuj.