

**Compensary Afforestation And Penel CA Scheme for double degraded area**

Diversion of 7.60 Ha of Protected forest land for widening of existing Porbandar-Adityana- Ranavav road (SH95) from Ch Kms 02+000 to 04+000 and 06+000 to 17+000 in Porbandar and Ranavav taluka of Porbandar District by Executive Engineer, R&B Division (State), Porbandar. (FP/GJ/ROAD/146151/2021)

Detailed scheme of Compensatory Afforestation and Penel CA for degraded area 16.00 ha. to be carried out in lieu of 7.60 ha. of Protected forest land to be diverted in Devbhumi Dwarka district.

**1. Details of degraded land.**

Village	Ranavav
Taluka	Ranavav
Range	Ranavav
District	Porbandar
Division	Porbandar
Block/ Patal, Compartment No., Survey No., FS	FS – IV, Coupe No.3, Compartment No. 3 p Survey No.-564
Area to be afforested	16.00 Ha.
Working circle	Inland Forest Improvement working circle

**2. Description of Area.**

Soil type	Black cotton
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 Double Degraded Area.

**4. Schedule of Plantation Programme:-**


(i)	The Compensatory Afforestation on double degraded area would be started by Dy.Conservator of Forest Porbandar Division as early as possible after the proposal is formally approved.
(ii)	Compensatory Afforestation will be done in 16.00 ha. area. The total afforestation cost will be about <b>Rs. 80,37,600/-</b> R & B Division, has given an undertaking to pay the cost of Compensatory Afforestation as per the prevailing wages (including the price escalation and supervision charges).

**Technical Details:-**

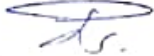
Technical details of Compensatory Afforestation are as Follows:

Sr. No.	Details	Specifications														
a	General Details	The C.A. will be taken under Compensatory Afforestation for double land on double degraded Forest Areas. The prevailing wage rate is 340.20 per day.														
b	Spacing	3 X 3 mtr., 1111 plants per ha.														
c	Species to be planted (No. of plants per ha.)	<table border="1"> <tr> <td>Nim</td><td>550</td><td rowspan="5">Minimum planting height will be 100 cm. at the time of planting. However it will vary for different species.</td></tr> <tr> <td>Casuarina Equisetifolia</td><td>250</td></tr> <tr> <td>Vad / Pipal / Umro</td><td>200</td></tr> <tr> <td>Kat Gundi</td><td>50</td></tr> <tr> <td>Paras Pipdo</td><td>61</td></tr> <tr> <td><b>Total</b></td><td><b>1111</b></td><td></td></tr> </table>	Nim	550	Minimum planting height will be 100 cm. at the time of planting. However it will vary for different species.	Casuarina Equisetifolia	250	Vad / Pipal / Umro	200	Kat Gundi	50	Paras Pipdo	61	<b>Total</b>	<b>1111</b>	
Nim	550	Minimum planting height will be 100 cm. at the time of planting. However it will vary for different species.														
Casuarina Equisetifolia	250															
Vad / Pipal / Umro	200															
Kat Gundi	50															
Paras Pipdo	61															
<b>Total</b>	<b>1111</b>															
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 <sup>st</sup> year three weeding soil working, Support watering will be provided if needed. 2 <sup>nd</sup> year two weeding soil working.														

		3 <sup>rd</sup> 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 4<sup>th</sup> 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  
Porbandar

The Compensatory Afforestation scheme at the cost of **Rs. 80,37,600/-** is technically and administrative approved by the undersigned.

  
Dy. Conservator of Forest  
Porbandar

**Diversion of 7.60 Ha of Protected forest land for widening of existing Porbandar- Adityana-  
Ranavav road (SH95) from Ch Kms 02+000 to 04+000 and 06+000 to 17+000 in Porbandar and  
Ranavav taluka of Porbandar District by Executive Engineer, R&B Division (State), Porbandar.  
(FP/GJ/ROAD/146151/2021)**

**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
<b>0 year</b>				
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	4784	230	5014
(c ) Seedling cost for casualty replacement in one year old (20%)	222	1512	419	1931
(d) Seedling cost for casualty replacement in two year old (10%)	111	757	209	966
<b>Total</b>		<b>7053</b>	<b>2673</b>	<b>9726</b>
<b>2. Area Development ( Land Preparation )</b>				
(a) Cleaning and removal of unwanted growth,		9718	0	9718
(b) Survey, cutback and promotion of root suckers.		3594	0	3594
(c) Aligment and digging of pits 0.45 X 0.45 X 0.45	1111@ 6.00	10378	0	10378
(d) Borwell with submercible pump, electric connection, pipeline etc.	LS	0	25000	25000
<b>Total</b>		<b>23690</b>	<b>25000</b>	<b>48690</b>
(a) Natural fertilizer (Neem cake/ Castor cake)	1111 @ 5.00	0	9830	9830
<b>Total</b>		<b>0</b>	<b>9830</b>	<b>9830</b>
<b>3. SMC Works</b>				
(a) Check wall/ retaining wall /checkdem (all pucca only), Van Talav	L.S.	12768	23535	36303
<b>Total</b>		<b>12768</b>	<b>23535</b>	<b>36303</b>

Item of work	Qty.	Labour	Material	Total
1	2	3	4	5
<b>4. Protection</b>				
(a) Barbed wire fencing	L.S.	3811	35391	39202
(b) Seed sowing and planting of cuttings of Ipomea/ Gliricidia along the fence		1186	473	1659
<b>Total</b>		<b>4997</b>	<b>35864</b>	<b>40861</b>
<b>Sub Total of 0 year</b>		<b>48508</b>	<b>96902</b>	<b>145410</b>
<b>1st Year</b>				
(a) Maintenance of nursery (April to June)	1222	3669	340	4009
(b) Transport of seedling for plantation	1111	19863	386	20249
(c) Planting with khamna of Min 1 m dia	1111	6186	0	6186
(d) Transport of seedling for casualty replacement	111	214	44	258
(e) 3 weeding cum soil working	1111	25192	0	25192
(f) Support watering 5 times @ 3.25		15415	20539	35954
(g) Protection / tending operation		4967	0	4967
(h) Tending to natural vegetation		1247	0	1247
(i) Contingency		0	1158	1158
<b>Total for 1st year</b>		<b>76753</b>	<b>22467</b>	<b>99220</b>
<b>2nd Year</b>				
(a) 2 weeding & soil working		13534	0	13534
(b) 20 % Casually replcement, transport and planting	111+111	225	1041	1266
(c) Natural fertilizer (neem cake / caster cake ) etc.	Rs.5/ plant	0	11617	11617
(d ) Support watering 3 times @ 3.25		10016	13351	23367
(e) Protection / tending operation		5405	0	5405
<b>Total for 2nd year</b>		<b>29180</b>	<b>26009</b>	<b>55189</b>
<b>3rd Year</b>				
(a) 2 weeding & soil working		14284	0	14284
(b) 10 % Casually replcement, transport and planting	111	121	561	682
(c) Natural fertilizer, neem cake etc.	Rs.5/ plant	0	12735	12735
(d ) Support watering 1 times @ 3.25		3597	4792	8389
(e) Protection & maintenance of fencing / tending operation	L.S.	9340	0	9340
<b>Total for 3rd year</b>		<b>27342</b>	<b>18088</b>	<b>45430</b>
<b>4thYear</b>				
(a) 1 weeding & soil working		7888	0	7888
(b) Protection & Maintenance of fencing/ Tending operation	L.S.	7796	0	7796
<b>Total for 4th year</b>		<b>15684</b>	<b>0</b>	<b>15684</b>

Item of work	Qty.	Labour	Material	Total
1	2	3	4	5
<b>5th Year</b>				
Protection & maintenance of fencing/ tending operation	L.S.	8316	0	8316
<b>Total for 5th year</b>		<b>8316</b>	<b>0</b>	<b>8316</b>
<b>6th Year</b>				
Protection & maintenance of fencing/ tending operation	L.S.	8840	0	8840
<b>Total for 6th year</b>		<b>8840</b>	<b>0</b>	<b>8840</b>
<b>7th Year</b>				
Protection & maintenance of fencing/ tending operation	L.S.	9355	0	9355
<b>Total for 7th year</b>		<b>9355</b>	<b>0</b>	<b>9355</b>
<b>8th Year</b>				
Protection & maintenance of fencing/ tending operation	L.S.	9874	0	9874
<b>Total for 8th year</b>		<b>9874</b>	<b>0</b>	<b>9874</b>
<b>9th Year</b>				
Protection & maintenance of fencing/ tending operation	L.S.	10394	0	10394
<b>Total for 9th year</b>		<b>10394</b>	<b>0</b>	<b>10394</b>
<b>10th Year</b>				
Protection & maintenance of fencing/ tending operation	L.S.	10915	0	10915
<b>Total for 10th year</b>		<b>10915</b>	<b>0</b>	<b>10915</b>
<b>SUB TOTAL :</b>		<b>255161</b>	<b>163466</b>	<b>418627</b>
The Cost of Supervision/subsequential silvicultural Operations	20%	51032	32693	83725
		<b>306193</b>	<b>196159</b>	<b>502352</b>

**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. : 5,02,350/-**



**Deputy Conservator of Forest  
Porbandar Division Porbandar**

### Annexure-3

Zone wise per ha species spectrum for degraded forest areas for Degradation area plantation for FCA proposals as also for Campa(CA) project plantations.

- I. Plant population 17776 (3m x 3m spacing)
- II. 1111 Plants/ha of Nim, Vad/Pipal/Umro, Kat Gundi, Paras Pipdo, Casuarina Equisetifolia etc Total 17776 plants/ Ha.  
Total 16.00 Ha Plantation.

Sr. No.	Species	Nos
1	Nim	8800
2	Casuarina Equisetifolia	4000
3	Vad/Pipal/Umro	3200
4	Kat Gundi	800
5	Paras Pipdo	976
	<b>Total</b>	<b>17776</b>



( D. J. Pandya )

Deputy Conservator of Forests  
Porbandar Division, Porbandar