

**Full Title of the Project :** Diversion of 0.8085 Ha. Forest land for construction of 220 KV D/C Transmission line from Existing 220/400 KV D/C Sub Station Dhanonda to 220 KV Sub Station Deroli Ahir through various strip Forests under forest division and district Mahendergarh.

**File No. :** FP/HR/Trans/140597/2021

**Date of Proposal :** 04-04-2021

## CHECK LIST SERIAL NUMBER :- 18

### C.A. Scheme

Detailed scheme for compensatory Afforestation to be carried out in lieu of 0.8085 Ha. Of forest area to be diverted for

Diversion of 0.8085 Ha. Forest land for construction of 220 KV D/C Transmission line from Existing 220/400 KV D/C Sub Station Dhanonda to 220 KV Sub Station Deroli Ahir through various strip Forests under Forest Division and Distt. Mahendergarh, Haryana.					
Details of degraded forest land/non forest land where CA is to be carried out:			PLPA area Madhogarh sec. 4&5		
Division	Mahendergarh	District	Mahendergarh	Village	Madhogarh

2)	Description of Area :				
i	Whether the site selected for Compensatory Afforestation is a Land bank Yes/No				Yes
ii	If the CA site is other than the land bank, reasons are given: -				NA
iii	In Case of Non-forest Area identified for CA, Then what is the distance of CA site from adjoining forest boundary				NA
iv	Soil type				Sandy Loam
v	Topography:	a. Hilly/Undulating/Plain			
		b. Slope: - Steep/Medium/Gentle			
vi	Whether the area is bearing any root stock of vegetation:-				No

### 3. Plantation Model :-

Copy of the approved Compensatory Afforestation Scheme/Model showing component wise physical and financial break up is as under;  
 Detail of year wise break-up of requirements of funds is as under:-  
 The plantation cost is calculated for Tall plants norms at 4 mtrx2.5 mtr spacing at the wage rate Rs. 393.77/- per day for the year 2022-23 as under:-

Area to be Diverted		0.8085
Area to be planted under normal CA	Ten times of damaged tree	1750
No. of Trees to be felled	175	Nos.
No. of Plant to be damaged	170	Nos.
Additional C.A. in lieu of plants to be damaged	Double the plants to be damaged	340

**1 Schedule of plantation programme:-**

Detail of year wise break-up of requirements of funds is as under:-

**Bill**

<b>A</b>	<b>Compensatory Afforestation Charges</b>	<b>No. of Plants</b>	<b>Rate</b>	<b>Total Amount (Rs.)</b>
	(1) 1 <sup>st</sup> Year cost of afforestation	1750	Rs. 192.87/- Per Plant	337522
	(2) 2 <sup>nd</sup> Year maintenance	1750	Rs. 77.48/- Per Plant	135590
	(3) 3 <sup>rd</sup> Year maintenance	1750	Rs. 36.60/- Per Plant	64050
	(4) 4 <sup>th</sup> Year maintenance	1750	Rs. 12.83/- Per Plant	22452
	(5) 5 <sup>th</sup> Year Maintenance	1750	Rs. 12.83/- per plant	22452
	(6) 6 <sup>th</sup> Year Maintenance	1750	Rs. 12.83/-per plant	22452
	(7) 7 <sup>th</sup> Year Maintenance	1750	Rs. 12.83/-Per plant	22452
	(8) 8 <sup>th</sup> Year Maintenance	1750	Rs. 12.83/-Per plant	22452
	(9) 9 <sup>th</sup> Year Maintenance	1750	Rs. 12.83/-Per plant	22452
	(10) 10 <sup>th</sup> Year Maintenance	1750	Rs. 12.83/-Per plant	22452
	<b>Total charges</b>			<b>694326</b>
	Supervisory/Overhead/Miscellaneous Charges/ Fencing		20% on the total CA charges	138865
	<b>Sub Total (A) C.A. charges</b>			<b>833191</b>
<b>B</b>	<b>Additional Compensatory Afforestation Charges</b>	<b>No. of Plants</b>	<b>Rate</b>	<b>Total Amount (Rs.)</b>
	(1) 1 <sup>st</sup> Year cost of afforestation	340	Rs. 192.87/- Per Plant	65576
	(2) 2 <sup>nd</sup> Year maintenance	340	Rs. 77.48/- Per Plant	26343
	(3) 3 <sup>rd</sup> Year maintenance	340	Rs. 36.60/- Per Plant	12444
	(4) 4 <sup>th</sup> Year maintenance	340	Rs. 12.83/- Per Plant	4362
	(5) 5 <sup>th</sup> Year Maintenance	340	Rs. 12.83/- per plant	4362
	(6) 6 <sup>th</sup> Year Maintenance	340	Rs. 12.83/-per plant	4362
	(7) 7 <sup>th</sup> Year Maintenance	340	Rs. 12.83/-Per plant	4362
	(8) 8 <sup>th</sup> Year Maintenance	340	Rs. 12.83/-Per plant	4362
	(9) 9 <sup>th</sup> Year Maintenance	340	Rs. 12.83/-Per plant	4362
	(10) <sup>th</sup> Year Maintenance	340	Rs. 12.83/-Per plant	4362

	<b>Sub Total (B) Total addl. C.A. charges</b>			<b>134897</b>
C	Penal CA			0
D	Catchments Area Treatment			
	Soil and Moisture Conservation charges		30% of total CA	249957
	<b>Sub Total (D)</b>			<b>0</b>
E	Safety Zone			0
F	Additional Charges			0
	i) Chain link fencing	0	0	0
	ii) Pipeline fitting for multiple water points			0
	iii) Survey & demarcation			10000
	iv) Plantation Sine board			3000
	<b>Sub Total (F)</b>			<b>0</b>
G	Felling charges	118.31	1400 per cum	165634
	<b>Grand Total (A+B+C+D+E+F+G+H) to be deposited in CAMPA Fund</b>			<b>1396679</b>

2. **Technical details :-**

Technical details of Compensatory Afforestation Scheme are as follows :-

a	General Details	Plantation will be done with 3 strand barbed wire in Protected Forest areas
b	Spacement	<b>4 x 4 meter</b>
c	Species	<b>Azadirachta indica, Holoptelea integrifolia, Ficus benghalensis, Ficus religiosa, Zyzyphus mauritiana Albizia lebbeck etc.</b>
d	Plantation Method	<b>Tall Plantation</b>
e	Soil and Moisture Conservation Works	Nil
f	Protection (Fencing, Watch man, People's Participation etc)	Fencing with Barbed Wire/ Protection Watcher
g	Proposed Monitoring Mechanism	Inspection by officers.
h	Any other information	No any.

Divisional Forest Officer  
Mahendergarh Forest Division

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### NPV Calculation Sheet

	Description	Total Area	Rate	Total Amount (RS.)
A	Net Present Value of Forest Land to be diverted	0.8085	Rs. 1228590(Lacs/Ha.	993316/-
Diverted Land Details				
	Project Land Category	Canditions		
1	Eco Class	III		
2	Canopy Density	Very Dense/ <b>Dense</b> /Open		
3	Density of Vegetation	0.4		
4	Is Forest Area in National Park	10 times of NPV	NA	
5	Wild Life Sanctuary	5 times of NPV	NA	
6	Project type wise	50% for wind power project/OFC	NA	
	<b>Total NPV Payable</b>			<b>993316/-</b>

Place: Mahendergarh  
Date: 07.11.2022

Name : Rohtas Singh, H.F.S.,  
Designation : Divisional Forest Officer

Annexure -II

Norms of Tall plants under Compensatory Afforestation demanded from User Agency in FCA diversion proposals at a wage rate of Rs. 405.11/- per day(in Plain Areas )					
No . of plants per Ha. = 1000					
Sr no.	Item of Work	Unit	Qty.	405.11 /- Rate/unit(Rs)	Amount (Rs.)
<b>1st Year Plantation</b>					
1	Jungle Clearance	Ha.	0.5	6076.65	3038.33
2	Raising of plants in nursery (30cmX45cm):	No.	480	101.57	48753.60
3	Raising of plants in nursery (15cmX22cm):	No.	720	13.38	9633.60
4	Dag bailing and alignment	RKM	3	283.58	850.74
5	Digging of pits (400x0.6mx0.6mx0.6m)	M3	86.4	172.17	14875.49
6	Digging of pits (600x0.45mx0.45mx0.45m)	M3	54.675	141.77	7751.27
7	Loading and unloading of plants in Tractor/Cart. (30X45cm)	No.	440	3.06	1346.40
8	Loading and unloading of plants in Tractor/Cart. (15cmX22cm)	No.	660	0.45	297.00
9	Carriage of plants (30X45cm)	No.	440	25.45	11198.00
10	Carriage of plants (15cmX22cm)	No.	660	2.53	1669.80
11	Plantation of plants including 10% replacement (30X45cm)	No.	440	16.22	7136.80
12	Plantation of plants including 10% replacement (15cmX22cm)	No.	660	6.09	4019.40
13	Application of fertilizer(One time DAP+ One time Urea )	No.	2000	0.8	1600.00
14	Irrigation five times	No.	5000	6.09	30450.00
15	First Weeding and Hoeing (30X45cm)	No.	400	8.08	3232.00
16	First Weeding and Hoeing (15cmX22cm)	No.	600	6.09	3654.00
17	Subsequent weeding and hoeing two times (30X45cm)	No.	800	6.09	4872.00
18	Subsequent weeding and hoeing two times (15cmX22cm)	No.	1200	4.05	4860.00
19	Cost of Wages of protection watcher (one protection watcher for six months for plantation area of 10 ha. )	LS			7292
20	Miscellaneous Expenditure(Urea Dap, tools etc. )				1000
	<b>Total</b>				<b>167530.43</b>
	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				13611.85
	Added Contractor Profit@7 % total				11727.13
	<b>Net Total</b>				<b>192869.40</b>
<b>2nd Year Plantation</b>					
1	Cleaning of weed/bushes between plantation	Ha.	0.5	1908.14	954.07
2	Raising of plants in Nursery (30cmx45cm)	No.	96	101.57	9750.72
3	Raising of plants in Nursery (15cmx22cm)	No.	144	13.38	1926.72
4	Re-opening of pits 80x0.6mx0.6mx0.6m	M3	17.28	81.03	1400.20
5	Re-opening of pits 120x0.45mx0.45mx0.45m	M3	10.93	81.03	885.66
6	Loading and unloading of plants (30X45cm)	No.	88	3.06	269.28
7	Loading and unloading of plants (15cmX22cm)	No.	132	0.45	59.40
8	Carriage of plants (30X45cm)	No.	88	25.45	2239.60
9	Carriage of plants (15cmX22cm)	No.	132	2.53	333.96
10	Planting of plants (30X45cm)	No.	88	16.22	1427.36
11	Planting of plants (15cmX22cm)	No.	132	6.09	803.88
12	Irrigation four times by hired tractor	No.	4000	6.09	24360.00
13	Weeding and Hoeing Three times (30X45cm)	No.	1200	6.09	7308.00
14	Weeding and Hoeing Three times (15cmX22cm)	No.	1800	4.05	7290.00
15	Miscellaneous Expenditure	LS			1000
16	Cost of Wages of protection watcher (one protection watcher for six months for plantation area of 10 ha. )				7292
	<b>Total</b>				<b>67300.85</b>

	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				5468.19
	Added Contractor Profit@7 % total				4711.06
	<b>Net Total</b>				<b>77480.10</b>
<b>3rd Year Plantation</b>					
1	Cleaning of weed/bushes between plantation	Ha.	0.5	1908.14	954.07
2	Raising of plants in Nursery (30cmx45cm)	No.	48	101.57	4875.36
	Raising of plants in Nursery (15cmx22cm)	No.	72	13.38	963.36
3	Re-opening of pits 40x.60 mx.60mx.60m	M3	3.645	81.03	295.35
	Re-opening of pits 60x.45 mx.45mx.45m	M3	5.4675	81.03	443.03
4	Loading and unloading of plants (30X45cm)	No.	44	3.06	134.64
	Loading and unloading of plants (15cmX22cm)	No.	66	0.45	29.70
5	Carriage of plants (30X45cm)	No.	44	25.44	1119.36
	Carriage of plants (15cmX22cm)	No.	66	2.53	166.98
6	Planting of plants (30X45cm)	No.	44	16.22	713.68
	Planting of plants (15cmX22cm)	No.	66	6.09	401.94
7	Irrigation two times	No.	2000	6.09	12180.00
8	Weeding and Hoeling (30X45cm)	No.	400	6.09	2436.00
	Weeding and Hoeling (15cmX22cm)	No.	600	4.05	2430.00
9	Misscellaneous Expenditure	LS			1000
10	Cost of Wages of protection watcher (one protection watcher for three months for plantation area of 10 ha. )	LS			3646
	<b>Total</b>				<b>31789.48</b>
	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				2582.89
	Added Contractor Profit@7 % total				2225.26
	<b>Net Total</b>				<b>36597.63</b>
<b>4th Year Plantation</b>					
1	Cost of Wages of protection watcher (one protection watcher for three months for plantation area of 10 ha. )				3646
2	Cleaning , pruning, Spacing and thinning	LS		0	5000
3	Misscellaneous Expenditure	LS			2500
	<b>Total</b>				<b>11146</b>
	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				905.61
	Added Contractor Profit@7 % total				780.22
	<b>Net Total</b>				<b>12831.83</b>
<b>5th Year Plantation</b>					
1	Cost of Wages of protection watcher (one protection watcher for three months for plantation area of 10 ha. )				3646
2	Cleaning , pruning, Spacing and thinning	LS		0	5000
3	Misscellaneous Expenditure	LS			2500
	<b>Total</b>				<b>11146</b>
	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				905.61
	Added Contractor Profit@7 % total				780.22
	<b>Net Total</b>				<b>12831.83</b>
<b>6th Year Plantation</b>					
1	Cost of Wages of protection watcher (one protection watcher for three months for plantation area of 10 ha. )				3646
2	Cleaning , pruning, Spacing and thinning	LS		0	5000
3	Misscellaneous Expenditure				2500
	<b>Total</b>				<b>11146</b>
	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				905.61
	Added Contractor Profit@7 % total				780.22
	<b>Net Total</b>				<b>780.22</b>

	Net Total				12831.83
7th Year Plantation					
	Cost of Wages of protection watcher (one protection watcher for three months for plantation area of 10 ha. )				3646
1					
2	Cleaning , pruning, Spacing and thinning	LS		0	5000
3	Misscellaneous Expenditure				2500
	Total				11146
	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				905.61
	Added Contractor Profit@7 % total				780.22
	Net Total				12831.83
8th Year Plantation					
	Cost of Wages of protection watcher (one protection watcher for three months for plantation area of 10 ha. )				3646
1					
2	Cleaning , pruning and Spacing	LS		0	5000
3	Misscellaneous Expenditure				2500
	Total				11146
	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				905.61
	Added Contractor Profit@7 % total				780.22
	Net Total				12831.83
9th Year Plantation					
	Cost of Wages of protection watcher (one protection watcher for three months for plantation area of 10 ha. )				3646
1					
2	Cleaning , pruning, Spacing and thinning	LS		0	5000
3	Misscellaneous Expenditure				2500
	Total				11146
	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				905.61
	Added Contractor Profit@7 % total				780.22
	Net Total				12831.83
10th Year Plantation					
	Cost of Wages of protection watcher (one protection watcher for three months for plantation area of 10 ha. )				3646
1					
2	Cleaning , pruning, Spacing and thinning	LS		0	5000
3	Misscellaneous Expenditure				2500
	Total				11146
	Added EPF@13%				
	Added ESI @3.25%				
	of wages component 50% of the total				905.61
	Added Contractor Profit@7 % total				780.22
	Net Total				12831.83
ABSTRACT OF COST NORMS					
YEAR OF PLANTATION		Cost (In Rs.)	Cost per plant		
FIRST YEAR PLANTATION		192869.40	192.87		
SECOND YEAR PLANTATION		77480.10	77.48		
THIRD YEAR PLANTATION		36597.63	36.60		
FOURTH YEAR PLANTATION		12831.83	12.83		
FIVE YEAR PLANTATION		12831.83	12.83		
SIX YEAR PLANTATION		12831.83	12.83		
SEVEN YEAR PLANTATION		12831.83	12.83		
EIGHT YEAR PLANTATION		12831.83	12.83		
NINE YEAR PLANTATION		12831.83	12.83		
TEN YEAR PLANTATION		12831.83	12.83		
TOTAL		396769.97	396.77		

Divisional Forest Office  
Mahendergarh

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