

Full Title of the Projects:- Diversion of 0.074591 ha of forest land for construction of Access road to the proposed Retail Outlet of Essar oil Ltd situated village Bhadurpur Fakiran on Patiala-Pehowa road Km 24-25 L/S Tehsil: Dudhan Sadhan Distt: Patiala under forest division Patiala.

Proposal No:- FP/PB/Road/29749/2017

CHECK LIST SERIAL NUMBER:-17

"SCHEME FOR COMPENSATORY AFFORESTATION"

Detail scheme Compensatory Afforestation Estimate for diversion of 0.074591 ha of forest land for construction of Access road to the proposed Retail Outlet of Essar oil Ltd situated village Bhadurpur Fakiran on Patiala-Pehowa road Km 24-25 L/S Tehsil: Dudhan Sadhan Distt: Patiala under forest division Patiala.

Details of degraded forest land:- Bir Bhorey Agoul C NO 17,21,25 & 26

District Patiala

Village : . Bhorey Agoul

Tehsil: Nabha

Name of Forest Division: Patiala

Forest Range: Bhadson

Block No./Compartment No./Survey No. Bir Bhorey Agoul C NO 17,21,25 & 26

Area:- 0.186 Ha.

Area to be afforested:- 0. 186 Ha. Plantation will be planted on Bir Bhorey Agoul C NO 17,21,25 & 26

2. Description of Area:-

vii. Whether the site selected for Compensatory Afforestation is a land bank or not:-_____Yes

viii. If the CA site is other than the land bank, reasons be given:-Land bank.

ix. In case of non-forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary:- N.A.

x. Soil type:-Heavy

xi. Topography:- a. Plain

b. Slope:-Gentle

xii. Whether the area is bearing any root stock of vegetation: Scattered .

3. Plantation Model:-

Copy of the approved Compensatory Afforestation Scheme/Model showing component wise physical and financial break up to be enclosed.

4. Schedule of Plantation Programme:-

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

0 th year	0.186	203272.79	37808.73894
1 st Year	0.186	81715.3	15199.0458
2 nd Year	0.186	50921.74	9471.44364
3 rd Year	0.186	57110.47	10622.54742
4 th Year	0.186	55497.08	10322.45688
5 th Year	0.186	6479.2	1205.1312

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6th Year	0.186	6479.2	1205.1312
7th Year	0.186	6479.2	1205.1312
8th Year	0.186	6479.2	1205.1312
9th Year	0.186	6479.2	1205.1312
10th Year	0.186	6479.2	1205.1312
Supervision Charge	0.186	73108.89	13598.25354
		560501.47	104253.2734

5. Technical Details:-

Technical details of Compensatory Afforestation Scheme are as follows:-

- i) General Details :-
- j) Spacement :- 3 x 3 mtr.
- k) Species :- Euc, Kikar ,Shisham Muscat, Arjun , Neem, Jamun, Euc.,Mulb. etc.
- l) plantation Method :-Pit & Trenches
- m) Soil and Moisture Conservation Works :-
- n) Protection (Fencing, Watch man , People's Participation etc.):Fencing,
Watch Man
- o) Proposed Monitoring Mechanism :-Internal
- p) Any other information :-

Date:
Place: Patiala

Harbhajan Singh ,PFS
Divisional Forest Officer,
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Wage
Rate : Rs. 356

Plantation Model For Standard Plantation under Compensatory Afforestation
Plants Per Hectare : 1000 Nos.

Sr. No.	Name of Work	Unit	Qty.	Unit Cost (in Rs.)	Amount
	Nursery				
	Nursery cost of raising plants	1100	1100	21.71	23878.05
A	Soil Work				
1	Site / Jungle Clearance (50%)	1 Ha.	0.5	5825.40	2912.70
2	Alignment & Dagbaling	1 Ha.	1	1068.00	1068.00
3	Earth works in Digging of Pits 1000 x 0.5 m x 0.5 m x 0.4 m	1 M3	100	110.03	11003.44
5	Kana Stubbing 25%	1 Ha.	0.25	29126.88	7281.72
B	Plantation Work				
1	Refilling of Pits 1000x0.5mx0.5mx0.3	100 cum	75	2981.50	2236.13
2	Loading & Unloading of Plants (1000+10% Wastage=1100)	100 No.	1100	596.95	6566.46
3	Carriage of Plants (1000+10% wastage =1100 avg. distance upto 10 km.)	100 No.	1100	213.60	2349.60
4	i) Carriage from site to site	100 No.	1000	142.40	1424.00
	ii) Planting of Plants (1000 No. including 10% replacement)	100 No.	1000	1068.00	10680.00
5	Spot Irrigation (1000 Plants)	100 No.	1000	222.50	2225.00
6	Application of Insecticide (2 Times)	100 No.	2000	44.50	890.00
7	Application of Fertilizers (2 Times)	100 No.	2000	44.50	890.00
8	Weeding & Hoeing 3 Times	100 No.	3000	388.04	11641.20
9	Hand Watering (12 Times)	100 No.	12000	222.50	26700.00
10	Replanting of Plants 10%	100 No.	100	628.55	628.55
11	Rejungle Clearance (2 Times) 50%	Per Ha.	1	2581.00	2581.00
12	Covering (25% plants) of plants	100 No.	250	320.40	801.00
13	Uncovering of plants	100 No.	250	35.60	89.00
14	Restubbing of Kana (1 Time) 25%		0.25	29126.88	7281.80

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15	Laying out & fixing of Barbed Wire	L/s			
16	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	8544	
17	Material			9256	6479.2
	i) Insecticides / Fertilizers	L/s			5426.829
	ii) POL	L/s			5426.829
	iii) Barbed Wire	L/s			54268.293
	Sub Total				203272.79
	Maintenance 1 Year				
1	Cost of raising plants for 30% replacement	1 No.	300	21.71	6512.20
2	Reopening of Pits 300 x 0.50 x 0.50 x 0.30	1 m3	22.5	64.72	1456.21
3	Refilling of pits with earth in other soils 300 x 0.50 x 0.50 x 0.30	1 m3	22.5	29.82	670.84
4	Loading & Unloading of Plants	1 No.	330	2.67	881.10
5	Carriage of Plants (300+10% Wastage = 330 avg. distance upto 10 Km.)	100 No.	330	212.95	702.73
6	Spreading of plants pit to pit	100 No.	300	142.40	427.20
7	Re-Planting to plants	100 No.	300	357.17	1071.52
8	Spot Irrigation	100 No.	300	222.50	667.50
9	Weeding & Hoeing (Three)	100 No.	3000	388.04	11641.20
10	Application of Insecticide (2 Times)	100 No.	2000	44.50	890.00
11	Application of Fertilizers (2 Times)	100 No.	2000	44.50	890.00
12	Hand Watering (6 Times)	100 No.	6000	388.04	23282.40
13	Rejungle Clearance (2 Times) 50%	Per Ha.	1	2581.00	2581.00
14	Restubbing of Kana	Per Ha.	0.25	29126.88	7281.72
15	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1/10 Man Yr.	9256.00	6479.20
16	Repair of Barbed Wire	L/s			5426.83
17	POL & Machinery	L/s			5426.83
18	Material and Supply	L/s			5426.83
	Sub Total				81715.30

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2nd Year Maintenance					
1	Cost of raising plants for 15% replacement	1 No.	150	21.71	3256.10
2	Reopening of Pits 150 x 0.50 x 0.50 x 0.40	1 m3	15	64.72	970.81
3	Refilling of pits with earth in other soils 150 x 0.50 x 0.50 x 0.30	1 m3	11.25	29.82	335.42
4	Loading & Unloading of Plants	1 No.	165	2.67	440.55
5	Carriage of Plants (150+10% Wastage = 165 avg. distance upto 10 Km.)	100 No.	165	212.95	351.37
6	Spreading of plants pit to pit	100 No.	150	142.40	213.60
7	Re-Planting to plants	100 No.	150	248.65	372.97
8	Spot Irrigation	100 No.	150	222.50	333.75
9	Weeding & Hoeing (Twice)	100 No.	2000	388.04	7760.80
10	Hand Watering (5 Times)	100 No.	5000	222.50	11125.00
11	Rejungle Clearance (2 Times) 50%	Per Ha.	1	2581.00	2581.00
12	Pruning to Plants	100 No.	100	420.70	420.70
13	Watch & Ward for every 10 Ha. (7 months)	Man Year	1/10 Man Yr.	9256.00	6479.20
14	Repair of Barbed Wire	L/s		5426.83	5426.83
15	POL & Machinery	L/s		5426.83	5426.83
18	Material and Supply	L/s		5426.83	5426.83
Sub Total					50921.74
3rd Year Maintenance					
1	Cost of raising plants for 10% replacement	1 No.	100	21.71	2170.73
2	Reopening of Pits 100 x 0.50 x 0.50 x 0.40	1 m3	10	6472.04	647.20
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.30	1 m3	7.5	29.82	223.61
4	Loading & Unloading of Plants	1 No.	110	2.07	293.70
5	Carriage of Plants (100+10% Wastage = 110 avg. distance upto 10 Km.)	100 No.	110	1.09	119.39
6	Spreading of plants pit to pit	100 No.	100	142.40	142.40

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7	Re-Planting to plants	100 No.	100	248.65	248.65
8	Spot Irrigation	100 No.	100	222.50	222.50
9	Weeding & Hoeing (thrice)	100 No.	3000	388.04	11641.20
10	Hand Watering (8 Times)	100 No.	8000	222.50	17800.00
11	Pruning to Plants 20%	100 No.	200	420.70	841.40
12	Watch & Ward for every 10 Ha. (7 months)	Man Year	1/10 Man Yr.	9256.00	6479.20
13	Repair of Barbed Wire	L/s		5426.83	5426.83
14	POL & Machinery	L/s		5426.83	5426.83
15	Material and Supply	L/s		5426.83	5426.83
Sub Total					57110.47
4th Year Maintenance					
1	Cost of raising plants for 5% replacement	1 No.	50	21.71	1085.37
2	Reopening of Pits 50 x 0.50 x 0.50 x 0.40	1 m3	5	6472.04	323.60
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.30	1 m3	3.75	29.82	111.81
4	Loading & Unloading of Plants	1 No.	55	2.67	146.85
5	Carriage of Plants (50+10% Wastage = 55 avg. distance upto 10 Km.)	100 No.	55	1.09	59.70
6	Spreading of plants pit to pit	100 No.	50	142.40	71.20
7	Re-Planting to plants	100 No.	50	248.65	124.32
8	Spot Irrigation	100 No.	50	222.50	111.25
9	Weeding & Hoeing (thrice)	100 No.	3000	388.04	11641.20
10	Hand Watering (8 Times)	100 No.	8000	222.50	17800.00
11	Pruning to Plants 30%	100 No.	300	420.70	1262.10
12	Watch & Ward for every 10 Ha. (7 months)	Man Year	1/10 Man Yr.	9256.00	6479.20
13	Repair of Barbed Wire	L/s		5426.83	5426.83
14	POL & Machinery	L/s		5426.83	5426.83
15	Material and Supply	L/s		5426.83	5426.83
Sub Total					55497.08

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	5th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9256	6479.20
	Sub Total				6479.2
	6th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9256	6479.20
	Sub Total				6479.2
	7th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9256	6479.20
	Sub Total				6479.2
	8th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9256	6479.20
	Sub Total				6479.2
	9th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9256	6479.20
	Sub Total				6479.2
	10th Year Maintenance				
1	Watch & Ward for every 10 Ha. (7 Motnts)	Man Year	1/10 Man Yr.	9256	6479.20
	Sub Total				6479.2
	Total				487392.58
	Over Head expenses 5%				24369.63
	Wage Enhancement @ 10%				48739.26
	G. Total				560501.46
	Or Say				560501 Rs
	Cost of Compensatory Afforestation for 0.074591 Ha. x 2500= 186 x 560501 Rs Per Ha./1000				104253/-
	Net Present Value = 0.074591 ha X 803000 Rs Per Ha.				59,897/-

Date:

Place: Patiala

Harbhajan Singh, PFS
 Divisional Forest Officer,
 Patiala Forest Division,
 Patiala.