

Proposal No – FP/PB/approach/147021/2021

"SCHEME FOR COMPENSATORY AFFORESTATION"

Details of degraded forest land/non forest land

Area to be afforested 0.100 ha + 0.056 ha area under Tall Plant

vi Whether the area is bearing any root stock of vegetation:-NO

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

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Divisional Forest Officer
Dasuya Forest Division Dasuya
22/10/21

Conversion of 0.014 ha of forest land approach access road to M/s HSD Retailoutlet HPCL Petroleum Corporation Limited at village Sariana from Hajipur to Mansar Road (R/s) Tehsil Mukerian Distt. Hoshiarpur.
User Agency:- M/s HPCL
Proposal No – FP/FB/approach/147021/2021

4. (a) Schedule of Plantation Programme for Degraded Scheme:-
 Details of year-wise break up of requirements of funds is as under :-

Plantation with Current Year Mtc.	0.100	329479.64	32947.96
1st Year Maintenance	0.100	110218.17	11021.82
2nd Year Maintenance	0.100	80760.14	8076.01
III rd Year Maintenance	0.100	63742.35	6374.24
IV th Year Maintenance	0.100	11648.00	1164.80
V th Year Maintenance	0.100	12454.00	1245.40
VI th Year Maintenance	0.100	13338.00	1333.80
VII th Year Maintenance	0.100	14274.00	1427.40
VIII th Year Maintenance	0.100	15262.00	1526.20
IX th Year Maintenance	0.100	16328.00	1632.80
X th Year Maintenance	0.100	17472.00	1747.20
Comp. Scheme for 1.00 Ha. + Entry Point Activity 10% = 6850		684976.30	75347.63

Schedule of Plantation Programme for Tall Plants

Plantation with Current Year Mtc.	0.056	111626	6251.06	6251
1st Year Maintenance	0.056	67793	3796.42	3796
2nd Year Maintenance	0.056	45835	2566.78	2567
III rd Year Maintenance	0.056	41769	2339.06	2339
IV th Year Maintenance	0.056	29644	1660.08	1660
Overhead charges (5% of plantation cost) Enhancement due to wage escalation 9%	0.056	41534	2315.88	2315
Total		338201		18928

Technical details:-

Technical details of Compensatory Afforestation Scheme are as follows:-

- General Details
- Spacing
- Species : Sagwan, Bamboo Etc
- Plantation Method
- Soil and Moisture Conservation Works.
- Protection (Fencing Watch man, People's Participation etc.)
- Proposed Monitoring Mechanism.

[Signature]
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ESTIMATED COST FOR DEGRADED IN SHIWALIKS					
Diversion of 0.014 ha of forest land approach access road to M/s HSD Retailoutlet HPCL Petroleum Corporation Limited at village Sarlana from Hajipur to Mansar Road (R/s) Tehsil Mukerian Distt. Hoshiarpur. FP/PB/approach/147021/2021					
1) Diverted Forest Area = 0.014				Daily Wage Rate @ 342	
2) Comp. Aff. Schme area =0.100 ha				Plants/Ha :1000	
3) Name of Site of Plantation : Haler Janarthan Forest (Mukerian Range)					
4) No. of plants Planted = 100 Plants					
Sr. No.	Nature of Work Component	Unit	Unit Cost	Quantity	Amount
A. Nursery					
1	Cost of seedling (upto tall plants) including (a) Original planting=1100 per ha. (b) Replacement 10%= 100 per ha Total 1100 No. in P. bag	No	75.00	1100	82500
B. Soil /Adv Works.					
2	Lantana stubbing	Ha.	27981.10	0.60	16788.66
3	Survey and alignment	Ha.	1368.00	1.00	1368.00
4	Earth work i.e. digging of Pits of Bouldry Soil size 1000 No. x .50 Mtr x .50 Mtr x .40 Mtr	M3	149.23	100	14923.00
					115580
C. Plantation.					
5	Refilling of pits 1000 No x .0.50 Mtr x .50 Mtr x .30 Mtr =75 m3	M3	27.62	75.00	2071.50
6	Carriage of seedlings (Tall Plants) by Tractor- Trolly	No	10.83	1000	10830
7	Carriage of seedlings (Tall Plants) by M/L lead 500mt.	Mtr	9.60	1000	9600
8	Loading & unloading of plants (Tall Plants)	100 No	85.46	1000	854.60
9	Planting of seedlings (Tall Plants)	No	10.26	1000	10260
10	Fixing of cement concrete fence post including digging of pits 1/2 Mtr deep.	100 No.	1026.00	130	1334
11	Layout and Fixing of barbed wire per stand	100 Mtr	171.00	1950	3335
12	Application of Insecticides 1000 x 2 times = 1000	100 No	59.83	2000	1196.60
13	Application of fertilizers 1000 x 2 times = 1000	100 No	59.83	2000	1196.60
14	Preparation of inspection path in Bouldry Soil 50 Mtr x .10 Mtr x 1Mtr= 5 M3	M3	149.23	5	746.15
					41423.75
D. Mtc on Planting Year					
15	Repair i.e. cleaning and dressing of inspection path	M3	149.23	5	746.15
16	Watch and ward for every 10 ha. Of plantation x 2.6 days	No.	342	26	8892.00
17	Cutting of lantana/mallaha 2nd and 3rd times. 0.50 x 2= 1	Ha	17890.00	1.00	17890.00
18	Weeding hoeing i.e. 1000m x 3 = 3000 m	No.	3.00	3000	9000

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Sr. No.	Nature of Work	Unit	Unit Cost	Quantity	Amount
	Component				
19	Application of Insecticides 1000 x 2 times = 2000	100 No	59.83	2000	1196.60
20	Application of fertilizers 100 x 2 times = 2000	100 No	59.83	2000	1196.60
21	Re-Opening of pits 100 No x .0.50 Mtr x .50 Mtr x .30 Mtr = 2.18 m ³	Mtr	56.43	7.5	423.23
22	Carriage of seedlings (Tall Plants) by Tractor-Trolley	No	10.83	1000	10830
23	Carriage of seedlings (Tall Plants) by M/L lead 500mt.	Mtr	9.60	100	960
24	Loading & unloading of plants (Tall Plants)	100 No	85.46	100	85.46
25	Re-Planting of seedlings (Tall Plants)	No	10.26	100	1026
26	Covering (25% Plants)	No.	3.05	250	762.50
27	Uncovering	No.	0.33	250	82.50
	E. Material				53091
28	Insecticides including carriage	litre	452.35	10	4523.50
29	Fertilizers i.e. urea etc. including carriage	kg	33.92	200	6784.00
30	Misc. Items (tools, etc)	L/S			5000
31	Fence Post (Concrete)	No.	350.00	130	45500
32	Barbed Wire	kg	85.00	325	27625
	Total Cost of Planting Year				89433
	Contingency 10%				299527
	Total Cost of Planting Year				29953
	1st year Maintenance (Labour rate Rs. 366/-)				329480
1	Re-opening of pits for replacement 250 no x .50m x .50m x .30m = 18.75 m ³	M3	60.39	18.75	1132.31
2	Refilling of pits 250 No. x 0.50m x 0.50m x 0.30m = 18.75 m ³	M3	37.99	18.75	712.34
3	Nursery cost of seedling (Tall Plants)	No	107.02	250	26754.39
4	Carriage of seedlings (Tall Plants) by Tractor-Trolley	No	11.59	250	2897.50
5	Carriage of seedlings (Tall Plants) by M/L labour lead 500mt.	100 Mtr	10.27	250	2568.42
6	Loading & unloading of plants (Tall Plants)	100 No	91.46	250	228.64
7	Re-Planting of seedlings (Tall Plants)	No	10.98	250	2745.00
8	Repair of Barbed Wire fence in hills	100 Mtr	109.16	1950	2129
9	Weeding and hoeing to trenches (Twice)	Mtr	2.28	4000	9117.89
10	Application of insecticides (Twice)	100 No	64.03	2000	1280.57
11	Application of fertilizers (twice)	100 No	64.03	2000	1280.57
12	Repair of inspection path (Twice)	Mtr	159.70	100	15970.22807
13	Cutting of lantana/mallah etc. per ha II & III times	Ha	6654.09	1.00	6654.09
14	Watch and ward for every 10 ha. Of plantation	No	366.00	26.00	9516
15	Covering (25% Plants)	No.	3.264035	250	816.01
16	Uncovering	No.	0.353158	250	88.29
	Cost of material				83890.84
17	Insecticides including carriage	litre	452.35	10	4523.50

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Sr. No.	Nature of Work	Unit	Unit Cost	Quantity	Amount
	Component				
18	Fertilizers i.e. urea etc. including carriage	kg	33.92	200	6784.00
19	Misc. Items (tools, etc)	L/S			5000
	Total				16307.50
	Countingency 10%				100198.34
	Total Cost of 1st Year Mtc				10019.83
	2nd Year Maintenance (Labour Rate Rs. 392/-)				110218.17
1	Reopening of pits for replacement 150 no x .50 m x .50 m x .30m = 11.25 m3	M3	64.68	11.25	727.65
2	Refilling of pits 150 No. x 0.50m x 0.50m x 0.30m = 11.25 m3	M3	40.69	11.25	457.75
3	Nursery cost of seedling (Tall Plants)	No	114.62	150	17193.38
4	Carriage of seedlings (Tall Plants) in P bags i) M/L Average Lead 1.5 km	No	11.00	150	1649.93
5	ii) Tractor trolly average lead 15 km (1000 plants per trolly)	No	12.41	150	1862.00
6	Loading & unloading of plants (Tall Plants) from T/ Trolly	100 No	97.96	150	146.94
7	Re -Planting of seedlings (Tall Plants)	No	11.76	150	1764
8	Repair of Barwed Wire fence in hills	100 Mtr	116.91	1950	2280
9	Weeding and hoeing to tranches (Twice)	Mtr.	2.44	4000	9767.87
10	Application of insecticides (Twice)	100 No	68.58	2000	1371.57
11	Application of fertilizers (Twice)	100 No	68.58	2000	1371.57
12	Repair of inspection path (Twice)	M3	171.04	100	17104.48
13	Lantana cutting (subsequent time 0.50 Ha) x 2 times =1.00	Ha	6413.84	1.00	6413.84
	Total				62110.81
	Cost of material				
14	Insecticide	Kg	452.35	10.00	4523.50
15	Fertilizers i.e. urea etc.	Kg	33.92	200.00	6784.00
	Total				11307.50
	Countingency 10%				73418.31
	Total Cost of 2nd Year Mtc				7341.83
	3rd Year Maintenance (Labour Rate Rs. 419/-)				80760.14
1	Reopening of pits for replacement 100 no x 0.50 x .50 m x .30m	M3	69.14	7.50	518.51
2	Refilling of trenches 100 No. x 0.50m x 0.50m x 0.30m	M3	43.49	7.50	326.19
3	Nursery cost of seedling (Tall Plants)	No	122.51	100	12251.47
4	Carriage of seedlings (Tall Plants) by mannual labour lead 500mt	100 Mtr.	11.76	100	1175.77
5	Loading & unloading of plants (Tall Plants) from T/ Trolly	100 No	104.71	100	104.71
6	ii) Tractor trolly average (Tall Plants) lead 15 km (1000 plants per trolly)	No	13.26	100	1326.48
7	Re-Planting of seedlings (Tall Plants)	No	12.57	100	1257.00
8	Repair of Barwed Wire fence in hills	100 Mtr	124.96	1950	2437
9	Weeding and hoeing to tranches (Twice)	Mtr.	2.61	4000	10432.24

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Sr. No.	Nature of Work Component	Unit	Unit Cost	Quantity	Amount
10	Cutting of lantana/mallaha lind and lllrd times.	Ha	7617.66	0.70	5332.36
11	Application of fertilizers				
12	Repair of inspection path (Twice)	100 No	73.30	1000	733.04
13	Pruning of plants	Mtr	182.82	100	18282.08
14	Jungle Clearance i.e. Bhang, Jhau tall weed etc.	No.	3.33	150	500.23
		No.	6856.07	0.2	1371.21
	Total				
	Cost of material				56048.07
15	Fertilizers i.e. urea etc.				
	Total	Kg	33.92	56.00	1899.52
					1899.52
	Total Cost of 3rd maintenance				57947.59
	Contingency 10%				5794.76
	SubTotal Cost of 3rd year maintenance				63742.35
	4th Year Maintenance (Labour rate Rs. 448/-)				
1	Watch and ward for every 10 ha. Of plantation	No	448.00	26.00	11648
	Total				11648.00
	5th Year Maintenance (Labour rate Rs. 479/-)				
1	Watch and ward for every 10 ha. Of plantation	No	479.00	26.00	12454
	Total				12454.00
	6th Year Maintenance (Labour rate Rs. 513/-)				
1	Watch and ward for every 10 ha. Of plantation	No	513.00	26.00	13338
	Total				13338.00
	7th Year Maintenance (Labour rate Rs. 549/-)				
1	Watch and ward for every 10 ha. Of plantation	No	549.00	26.00	14274
	Total				14274.00
	8th Year Maintenance (Labour rate Rs. 587/-)				
1	Watch and ward for every 10 ha. Of plantation	No	587.00	26.00	15262
	Total				15262.00
	9th Year Maintenance (Labour rate Rs. 628/-)				
1	Watch and ward for every 10 ha. Of plantation	No	628.00	26.00	16328
	Total				16328.00
	10th Year Maintenance (Labour rate Rs. 672/-)				
1	Watch and ward for every 10 ha. Of plantation	No	672.00	26.00	17472
	Total				17472.00
	ABSTRACT				
1	Total Cost On Plantation Works				329479.64
2	Total Cost of 1st year Maintenance				110218.17
3	Total Cost of 2nd year Maintenance				80760.14
4	Total Cost of 3rd year Maintenance				63742.35
5	Total Cost of 4th year Maintenance				11648.00
6	Total Cost of 5th year Maintenance				12454.00
7	Total Cost of 6th year Maintenance				13338.00

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Sr. No.	Nature of Work Component	Unit	Unit Cost	Quantity	Amount
8	Total Cost of 7th year Maintenance				14274.00
9	Total Cost of 8th year Maintenance				15262.00
10	Total Cost of 9th year Maintenance				16328.00
11	Total Cost of 10th year Maintenance				17472.00
	G.Total				684976.30
	Comp. Aff. Scheme for 1.00 Ha.				684976.00
	Comp. Aff. Scheme for 0.100 ha				
	Entry Point Activity @ 10%	Rs	0.100	684976	68497.60
	Total CA				6850.00
	Net Present Value				75347.60
			0.014	803000	11242.00
				Total	86589.60
				Or Say	86590.00

Note:- Labour Rate increased average 7% every year

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Diversion of 0.014 ha of forest land approach access road to M/s HSD Retailoutlet HPCL Petroleum Corporation Limited at village Sariana from Hajipur to Mansar Road (R/s) Tehsil Mukerian Distt. Hoshiarpur.
Perposal No – FP/PB/Approach/147021/2021

1) Diverted Forest Area =0.014 Ha.

2) Comp. Aff. Tall plants Schme area = 0.056Ha.

3) Name of Site of Plantation = Haler Janarthan Forest

4) No. of plants Planted =28 Plants

Estimate for planting of Tall plants			Daily Wage Rate : 328/-		
Name of Work		Unit	Unit Cost (In Rs.)	Qty	Total Amt
Nursery					
Cost of Tall plants					
Soil Works		1 No	60	550	33000.00
1	Site /Jungle Clearance (50%)				
2	Alignment & Dagbailing	Ha.	5367.22	0.5	2683.61
3	Earth Work-	Ha.	984	1	984.00
	Digging of Pits 500 x 0.6m x 0.6m x 0.5m Heavy Soil	1M ³	101.38	90	9124.20
4	Kana Stubbing 25%				
Planting		Ha.	26836.3	0.25	6709.08
1	Refilling of Pits				
2	Loading & Unloading of Plants (500+10% Wastage=550)	100 cum	2747	72	1977.84
3	Carriage of Plants (500+10% Wastage=550 avg. distance upto 10 km.)	100 No	246	550	1353.00
	500 Trolly	100 No	196.8	1	196.80
4	i) Carriage from site to site				
	ii) Planting of Plants (500 No Including 10% replacement)	100 No	131.2	550	721.60
5	Spot Irrigation (500 Plants)	100 No	984	550	5412.00
6	Application of Insecticide (2 times)	100 No	205	500	1025.00
7	Application of Fertilizers (2 times)	100 No	41	1000	410.00
8	Weeding & Hoeing 3 times	100 No	41	1000	410.00
9	Hand Water 6 months x 2 times =12 times	100 No	357.52	1500	5362.80
10	Replanting of Plants 10%	100 No	205	6000	12300.00
11	Rejungle Clearance (2 times)	100 No	579.11	50	289.56
12	Covering (25% plants) of plants	Per Ha.	2378	1	2378.00
13	Uncovering of plants	100 No	295.2	125	369.00
14	Restubbing of Kana (1 time)	100 No	32.8	125	41.00
15	Laying out & fixing of Barbed Wire	Ha.	26836.3	0.25	6709.08
16	Watch & Ward for ever: 10 Ha. (7 months)	L/s			4200.00
		Man year	8528	1Man	5969.60
17	Material			7 Month	
	i) Insecticides/Fertilizers				
	ii) POL	L/s			5000.00
		L/s			5000.00
Sub Total					111626.16
Maintenance 1 Year					
1	Cost of plants for 30% replacement	1 No.	60	150	9000.00
2	Reopening of Pits 150 x 0.60 x 0.60 x 0.40	1 m3	59.63	21.6	1288.01
3	Refilling of pits with earth in other soils 150 x 0.60 x 0.60 x 0.40	1 m3	27.47	21.6	593.35
4	Loading & Unloading of Plants	1 No.	2.46	150	369.00
5	Carriage of Plants (150- 10% Wastage=330 avg. distance upto 10 km.)	500 No	196.2	1	196.20
6	Spreading of plants pit to pit	100 No	131.2	165	216.48
7	Re-planting Tall Plants	100 No	329.08	165	542.98

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8	Spot Irrigation				
9	Weeding & Hoeing (thrice)	100 No.	205	165	338.25
10	App. Of Fertilizer (two times)	100 No	357.52	1500	5362.80
11	App. Of Insecticide (two times)	100 No	41	1000	410.00
12	Hand watering 6 months x 2 times = 12 times	100 No	41	1000	410.00
13	Rejungle Clearance (2 times)	100 No	357.52	6000	21451.20
14	Restubbing of Kana	Ha.	2378	1	2378.00
15	Watch & Ward for every 10 Ha. (10 months)	Ha.	26836	0.25	6709.00
16	POL	Man year	8528	1/10 Man yr.	8528.00
17	Material and supply	L/s			5000.00
		L/s			5000.00
Maintenance II Year					Sub Total
1	Cost of plants for 15% replacement				67793.27
2	Reopening of Pits 75 x 0.60 x 0.60 x 0.40	No.	60	75	4500.00
3	Refilling of pits with earth in other soils 75 x 0.60 x 0.60 x 0.40	1 m3	59.63	10.8	644.00
4	Loading & Unloading of Plants	1 m3	27.47	10.8	296.68
5	Carriage of Plants = 75 avg. distance upto 10 km.)	1 No.	2.46	75	184.50
6	Spreading of plants pit to pit	500 No	196.2	1	196.20
7	Re-planting to tall plants	100 No	131.2	75	98.40
8	Spot Irrigation	100 No	229.08	75	171.81
9	Weeding & Hoeing (twice)	100 No.	205	75	153.75
10	Hand Watering 10 Times	100 No	357.52	1500	5362.80
11	Rejungle Clearance (2 times)	100 No	205	5000	10250.00
12	Stubbing of Kana	Ha.	2378	1	2378.00
13	Pruning to plants	Ha.	26836	0.1	2683.60
14	Watch & Ward for every 10 Ha.	100 No.	387.61	100	387.61
15	POL	Man year	8528	1/10 Man yr.	8528.00
16	Material and supply	L/s			5000.00
		L/s			5000.00
Maintenance III Year					Sub Total
1	Cost of plants for 10% replacement				45835.35
2	Reopening of Pits 50 x 0.60 x 0.60 x 0.40	1 No.	60	50	3000.00
3	Refilling of pits with earth in other soils 50 x 0.60 x 0.60 x 0.40	1 m3	59.63	7.2	429.34
4	Loading & Unloading of Plants	1 m3	27.47	7.2	197.78
5	Carriage of Plants 50 avg. distance upto 10 km.)	1 No.	2.46	50	123.00
6	Spreading of plants pit to pit	500 No	196.2	1	196.20
7	Re-planting to plants	100 No	131.2	50	65.60
8	Spot Irrigation	100 No	229.08	50	114.54
9	Weeding & Hoeing (thrice)	100 No.	205	50	102.50
10	Hand Watering (8 times)	100 No	357.52	1500	5362.80
11	Rejungle Clearance (2 times)	100 No	205	4000	8200.00
12	Stubbing of Kana	Ha.	2378	1	2378.00
13	Pruning to plants 20%	Ha.	26836	0.1	2683.60
14	Watch & Ward for every 10 Ha.	100 No.	387.61	100	387.61
15	POL	Man year	8528	1/10 Man yr.	8528.00
16	Material and supply	L/s			5000.00
		L/s			5000.00
Maintenance IV Year					Sub Total
1	Cost of plants for 5% replacement				41768.97
2	Reopening of Pits 25 x 0.60 x 0.60 x 0.40	1 No.	60	25	1500.00
3	Refilling of pits with earth in other soils 25 x 0.60 x 0.60 x 0.40	1 m3	59.63	3.6	214.67
4	Loading & Unloading of Plants	1 m3	27.47	3.6	98.89
		1 No.	2.46	25	61.50

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5	Carriage of Plants = 25 avg. distance upto 10 km.)	500 No	196.2	1	196.20
6	Spreading of plants pit to pit	100 No	131.2	25	32.80
7	Re-planting to plants	100 No	229.08	25	57.27
8	Spot Irrigation	100 No.	205	25	51.25
9	Weeding & Hoeing (twice)	100 No	357.52	1500	5362.80
10	Rejungle Clearance (2 times)	100 No	2378	1	2378.00
11	Pruning to plants 30%	Ha.	387.61	300	1162.83
12	Watch & Ward for every 10 Ha.	100 No.	8528	1/10 Man yr.	8528.00
15	POL	Man year			
16	Material and supply	L/s			5000.00
		L/s			5000.00
				Sub Total	29644.21
	Over Head expenses 5%			TOTAL	296667.96
	Enhancement due to wage escalation @9%				14833.40
					26700.12
				G.Total	338201.47
				Or Say	338201
Note:- The watch and ward in subsequent years will carry out the necessary operations of Pruning					
Cost per plant (in Rs) 676					
	Total No. of effected under size pole 14*2 =28 plants	676	No	28	18928
	Grand Total				18928.00

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