

Diversion of 0.0055 ha. of forest land in favour of Water supply & Sanitation Div. No. 3, Bathinda for construction of RCC Sump and laying canal water supply pipeline on Kotla Branch Canal RD 35900 L/s at village Mansa Kalan under Distt. & Forest Division Bathinda, Punjab (Online Proposal No. FP/PB/Pipeline/147293/2021)

"SCHEME FOR COMPENSATORY AFFORESTATION"

Detail scheme for compensatory afforestation to be carried out in lieu of 0.0055 ha. of forest area to be diverted for construction of RCC Sump and laying canal water supply pipeline on Kotla Branch Canal RD 35900 L/s at village Mansa Kalan under Distt. & Forest Division Bathinda, Punjab (Online Proposal No. FP/PB/Pipeline/147293/2021)

1. Details of degraded forest land/non-forest land :-

District Bathinda Village Bathinda

Teh Bathinda

Name of Forest Division Bathinda Range Bathinda

Block/Compartment/Survey No Bathinda Area to be afforested:-Daula Minor RD 0 Hadd B/s

2. Description of Area :

i Whether the site selected for Compensatory Afforestation is a land bank or not : YES

ii. If the CA site is other than the land bank, reasons be given : N.A.

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

iv Soil type : Sandy.

v. Topography :- a. Hilly/Undulating/Plain
b. Slope : Steep/Medium/Gentle - N.A.

vi. Whether the area is bearing any root stock of vegetation Not

3. Plantation Model :

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

Date 28/01/2022

Place Bathinda


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Bathinda Forest Division
Bathinda

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2. **Schedule of Plantation Programme :-**
Detail of year wise break up of requirements of funds is as under :-

Year	Area	Rate/ha.	Total Amount
0 th Year	0.100	208127.57	20813
1 st Year	0.100	81923.73	8192
2 nd Year	0.100	51332.21	5133
3 rd Year	0.100	47783.20	4778
4 th Year	0.100	44284.92	4428
5 th Year	0.100	6697.60	670
6 th Year	0.100	6697.60	670
7 th year	0.100	6697.60	670
8 th year	0.100	6697.60	670
9 th year	0.100	6697.60	670
10 th year	0.100	6697.60	670
Overhead charges 5 %	0.100	23681.86	2368
Wage Enhancement @ 10%	0.100	47363.72	4736
Total		544682.81	54468

3. **Technical details :**

Technical details of Compensatory Afforestation Scheme are as follows :

- (a) General Details : **Afforestation by Artificial Regeneration**
- (b) Spacement :- **3mX3m**
- (c) Species : **Ailanthus, Cassia siamia, Shisham, Neem, Jaman, etc.**
- (d) Plantation Method : **Pit & Trench**
- (e) Soil and Moisture Conservation Works : **Digging of Trenches**
- (f) Protection (Fencing, Watch man, People's Participation etc) : **Fencing & Watch**
- (g) Proposed Monitoring Mechanism : **Forest Department**
- (h) Any other information : ---

Date 25/01/2022
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Plantation Model For Standard Plantation under Compensatory Afforestation

Plants Per Hectare : 1000 Nos.

Wage Rate Rs. 368

Land Bank:- Daula Minor RD 0 Hadd B/s (Bathinda Range)					
Sr. No.		Unit	Qty.	Unit Cost (in Rs.)	Amount
	Nursery				
	Nursery cost of raising plants	1100	1100	22.44	24682.93
A	Soil Work				
1	Site / Jungle Clearance (50%)	Ha.	0.5	6021.76	3010.88
2	Alignment & Dagbaling	Ha.	1	1104	1104.00
3	Earth works in Digging of Pits 1000 x 0.5 m x 0.5 m x 0.4 m	1 M3	100	113.743	11374.30
4	Kana Stubbing 25%	.Ha.	0.25	30108.7	7527.18
B	Plantation Work			0	
1	Refilling of Pits 1000x0.5mx0.5mx0.3	100 cum	75	3082	2311.50
2	Loading & Unloading of Plants (1000+10% Wastage=1100)	100 No.	1100	617.073	6787.80
3	Carriage of Plants (1000+10% wastage =1100 avg. distance upto 10 km.)	100 No.	1100	220.8	2428.80
4	i) Carriage from site to site	100 No.	1000	147.2	1472.00
	ii) Planting of Plants (1000 No. including 10% replacement)	100 No.	1000	1104	11040.00
5	Spot Irrigation (1000 Plants)	100 No.	1000	230	2300.00
6	Application of Insecticide (2 Times)	100 No.	1000	46	460.00
7	Application of Fertilizers (2 Times)	100 No.	1000	46	460.00
8	Weeding & Hoeing 3 Times	100 No.	3000	401.12	12033.60
9	Hand Watering (12 Times)	100 No.	12000	230	27600.00
10	Replanting of Plants 10%	100 No.	100	649.738	649.74
11	Rejungle Clearance (2 Times)	Per Ha.	1	2668	2668.00
12	Covering (25% plants) of plants	100 No.	250	331.2	828.00
13	Uncovering of plants	100 No.	250	36.8	92.00
14	Restubbing of Kana (1 Time)		0.25	30109	7527.25
15	Laying out & fixing of Barbed Wire	L/s		0	7872.00
16	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60
17	Material			0	
	i) Insecticides / Fertilizers	L/s		0	5600.00
	ii) POL	L/s		0	5600.00
	iii) Barbed Wire	L/s		0	56000.00
	Sub Total			0	208127.57
	Maintenance 1 Year			0	
1	Cost of raising plants for 30% replacement	1 No.	300	22.439	6731.70
2	Reopening of Pits 300 x 0.50 x 0.50 x 0.30	1 m3	21.6	66.902	1505.30

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3	Refilling of pits with earth in other soils 300 x 0.50 x 0.50 x 0.30	1 m3	21.6	30.82	693.45
4	Loading & Unloading of Plants	1 No.	300	2.76	828.00
5	Carriage of Plants (300+10% Wastage = 330 avg. distance upto 10 Km.)	100 No.	1	220.127	220.13
6	Spreading of plants pit to pit	100 No.	165	147.2	242.88
7	Re-Planting to plants	100 No.	165	369.212	609.20
8	Spot Irrigation	100 No.	165	230	379.50
9	Weeding & Hoeing (three)	100 No.	3000	401.12	12033.60
10	Application of Insecticide (2 Times)	100 No.	1000	46	460.00
11	Application of Fertilizers (2 Times)	100 No.	1000	46	460.00
12	Hand Watering (6 Times)	100 No.	6000	401.12	24067.20
13	Rejungle Clearance (2 Times)	Per Ha.	1	2668	2668.00
14	Restubbing of Kana	Per Ha.	0.25	30108.7	7527.18
15	Watch & Ward for every 10 Ha. (10 Months)	Man Year	1/10 Man Yr.	9568	6697.60
16	Repair of Barbed Wire	L/s		0	5600.00
17	POL & Machinery	L/s		0	5600.00
18	Material and Supply	L/s		0	5600.00
	Sub Total			0	81923.73
				0	
	2nd Year Maintenance			0	
1	Cost of raising plants for 15% replacement	1 No.	150	22.439	3365.85
2	Reopening of Pits 150 x 0.60 x 0.60 x 0.40	1 m3	21.6	66.902	644.00
3	Refilling of pits with earth in other soils 150x 0.60 x 0.60 x 0.40	1 m3	21.6	30.82	296.68
4	Loading & Unloading of Plants	1 No.	75	2.76	207.00
5	Carriage of Plants Wastage = 75 avg. distance upto 10 Km.)	500 No.	1	220.127	220.13
6	Spreading of plants pit to pit	100 No.	75	147.2	110.40
7	Re-Planting to plants	100 No.	75	257.028	192.77
8	Spot Irrigation	100 No.	75	230	172.50
9	Weeding & Hoeing (Twice)	100 No.	2000	401.12	8022.40
10	Hand Watering (5 Times)	100 No.	5000	230	11500.00
11	Rejungle Clearance (2 Times)	Per Ha.	1	2668	2668.00
12	Pruning to Plants	100 No.	100	434.88	434.88
13	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60
14	Repair of Barbed Wire	L/s		0	5600.00
15	POL & Machinery	L/s		0	5600.00
18	Material and Supply	L/s		0	5600.00
	Sub Total			0	51332.21
				0	
	3rd Year Maintenance			0	
1	Cost of raising plants for 10% replacement	1 No.	100	22.439	2243.90

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2	Reopening of Pits 100 x 0.50 x 0.50 x 0.40	1 m3	10	6690.2	429.34
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.30	1 m3	7.5	30.82	197.78
4	Loading & Unloading of Plants	1 No.	100	2.76	276.00
5	Carriage of Plants 50 avg. distance upto 10 Km.)	100 No.	100	1.12195	112.20
6	Spreading of plants pit to pit	100 No.	100	147.2	147.20
7	Re-Planting to plants	100 No.	100	257.028	257.03
8	Spot Irrigation	100 No.	100	230	230.00
9	Weeding & Hoeing (twice)	100 No.	2000	401.12	8022.40
10	Hand Watering (5 Times)	100 No.	5000	230	11500.00
11	Pruning to Plants 20%	100 No.	200	434.88	869.76
12	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60
13	Repair of Barbed Wire	L/s		0	5600.00
14	POL & Machinery	L/s		0	5600.00
15	Material and Supply	L/s		0	5600.00
	Sub Total			0	47783.20
				0	
	4th Year Maintenance			0	
1	Cost of raising plants for 5% replacement	1 No.	50	22.439	1121.95
2	Reopening of Pits 50 x 0.50 x 0.50 x 0.40	1 m3	5	6690.2	429.34
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.30	1 m3	3.75	30.82	197.78
4	Loading & Unloading of Plants	1 No.	50	2.76	138.00
5	Carriage of Plants 50 avg. distance upto 10 Km.)	100 No.	50	1.12195	56.10
6	Spreading of plants pit to pit	100 No.	50	147.2	73.60
7	Re-Planting to plants	100 No.	50	257.028	128.51
8	Spot Irrigation	100 No.	50	230	115.00
9	Weeding & Hoeing (twice)	100 No.	2000	401.12	8022.40
10	Hand Watering (4 Times)	100 No.	4000	230	9200.00
11	Pruning to Plants 30%	100 No.	300	434.88	1304.64
12	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60
13	Repair of Barbed Wire	L/s		0	5600.00
14	POL & Machinery	L/s		0	5600.00
15	Material and Supply	L/s		0	5600.00
	Sub Total			0	44284.92
				0	
	5th Year Maintenance			0	
1	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60

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	Sub Total			0	6697.60
	6th Year Maintenance			0	
1	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60
	Sub Total			0	6697.60
	7th Year Maintenance			0	
1	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60
	Sub Total			0	6697.60
	8th Year Maintenance			0	
1	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60
	Sub Total			0	6697.60
	9th Year Maintenance			0	
1	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60
	Sub Total			0	6697.60
	10th Year Maintenance			0	
1	Watch & Ward for every 10 Ha. (7 Months)	Man Year	1 Man 7 Month	9568	6697.60
	Sub Total				6697.60
	Total				473637.23
	Over Head expenses 5%				23681.86
	Wage Enhancement @ 10%				47363.72
	G. Total				544682.82
	Or say				544.6828
				Per plant	
1	Cost of Compensatory Afforestation minimum of 100 Plants @ 544.68/- Per Plants			CA	54468.00
2	Entry Point Activity 10% of CA amount			EPA	5447.00
3	NPV OF 'area 0.0055 *957780/-Per ha.			NPV	5268.0
	Grand Total (1+2+3)				65183.0

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