

Diversion of 275.16 ha. (Instead of 109.64ha.) forest land (211.06 ha. Protected forest and 64.10 ha. PLPA area) excluding delisted area(58.75 ha) out of 333.91 ha of total land for Reservoir of Shahpurkandi Dam Project in Tehsil Dhar Kalan Forest Division and district Pathankot. (By. (SANDESH RAJ) EXECUTIVE ENGINEER SHAHPURKANDI DAM DIVISION NO.II, SHAHPURKANDI TOWNSHIP.) Proposal No. FP/PB/HYD/40592/2019

CHECK LIST SERIAL NUMBER :-17

“SCHEME FOR COMPENSATORY AFFORESTATION”

Details scheme for compensatory Afforestation to be carried out in lieu of 275.16 ha. of forest area to be diverted forest area for the purpose Reservoir of Shahpurkandi Dam Project in Tehsil Dhar Kalan Forest Division and district Pathankot.

1. **Details of non-forest land:-**

District **Pathankot**

Tehsil Pathankot

Name of Forest Division **Pathankot ,Gurdaspur,Amritsar,Sangrur,Ropar**

Block/ Compartment/Survey No. ----- **Attached**

Area to be afforested **275.16 ha (275160 Plants)**

2. **Description of Area :-**

- i Whether the site selected for Compensatory Afforestation is a land bank or not
:NO
- 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 :- **Near to the forest boundary.**
- iv Soil type :- Heavy soil / Medium soil
- v Topography
 - a. **Hilly/Undulating/Plan**
 - b. **Slope:- Steep/Medium/Gentle**
- vi Whether the area is bearing any root stock of vegetation:-NO

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Diversion of 275.16 ha. (Instead of 109.64ha.) forest land (211.06 ha. Protected forest and 64.10 ha. PLPA area) excluding delisted area(58.75 ha) out of 333.91 ha of total land for Reservoir of Shahpurkandi Dam Project in Tehsil Dhar Kalan Forest Division and district Pathankot. (By. (SANDESH RAJ) EXECUTIVE ENGINEER SHAHPURKANDI DAM DIVISION NO.II, SHAHPURKANDI TOWNSHIP.) Proposal No. FP/PB/HYD/40592/2019

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

ABSTRACT OF COMPENSATORY AFFORESTATION COST FOR NON FOREST LAND IN THE SHAHPUR KANDI DAM PROJECT

Sr No	Forest Division	Model	Location	Area Suitable for Plantation (in Acre)	Area Suitable for Plantation (in Hectare)	Cost of CA
1	Ropar	Degraded (Tall Plant)	Total land of Ropar (PSPCL)	201.09	81.38	69783784
2	Pathankot	Degraded	Total land of RSD , SPK & PSPCL Adminstration	173.76	70.32	50604992.45
3	Amritsar	Degraded	Total land of Majitha Division Amritsar	34.77	14.07	7944386.31
4	Amritsar	Degraded	Total land of Jandiala Division Amritsar	33.13	13.41	7571728.53
5	Gurdaspur	Degraded	Total land of Gurdaspur, Madhopur & Majitha Division	28.04	11.35	6408584.55
6	Sangrur	Degraded	Total land of Lehla Division I.B Patiala	29	11.74	6628791.42
7	Sangrur	Waterlogged	Total land of Drainage Division Sangrur	180.13	72.9	95967820.41
Total				679.93	275.16	244910087.8

ABSTRACT OF ADDITIONAL COMPENSATORY AFFORESTATION COST IN THE SHAHPUR KANDI DAM PROJECT

Sr No	Forest Division	Model	Location	Area Suitable for Plantation(in Acre)	Area Suitable for Plantation(in Hectare)	Cost of CA
1	Pathankot	Degraded	UP Narianpur	8.79	3.556	Rs 1202644.46

Grand Total = 244910087.8+1202644.46 = Rs 246112732.26

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Pathankot

Diversion of 275.16 Ha (Instead of 109.64 Ha) Forest Land (211.05 Ha Protected Forest and 64.10 Ha PLPA area) excluding delisted area (58.75 Ha) out of 333.91 Ha of forest land for Reservoir of Shahpurkandi Dam Project in Tehsil Dhar Kalan Forest Division and district Pathankot. (By (Sandesh Raj) Executive Engineer Shahpurkandi Dam Division No. II, Shahpurkandi Township.)
Proposal No. FP/PB/HYD/40592/2019

1) Diverted Forest Area = 275.16 Ha	4) Site of CA Chak Dhera - 50 Ha Tibba Taprian - 28 Ha Batarla - 13 Ha Total - 81.4 Ha
2) C.A. by Tall Plants = 81.4 Ha	
3) No. of Tall plants to be planted = 81400 Plants	No. of Tall Plants to be planted in 1 Ha: 1000

Estimate for planting of Tall plants

Daily Wage Rate : 368/-

Sr. No.	Name of Work	Unit	Unit Cost (In Rs.)	Qty	Total Amt
	Nursery				
1	Cost of Tall plants	1 No	60	1100	66,000
	Soil Works				
2	Site /Jungle Clearance (70%)	Ha.	5367.22	0.7	4,215
3	Alignment & Dagbailing	Ha.	984	1	1,104
4	Earth Work- Digging of Pits 1000 x 0.6m x 0.6m x 0.5m Heavy Soil	1M ³	101.38	180	20,474
5	Kana Stubbing 40%	Ha.	26836.3	0.4	12,044
	Planting				
6	Refilling of Pits	100 cum	2747	144	4,438
7	Loading of Tall Plants (1000+10% Wastage=1100)	100 No	164	1100	2,024
8	Carriage of large size P. Bags in trolley from nursery to plantation site (1100 plants= 8 trolley with 180 plants each) (for 10 Km)	1 trolley for 10 kms	1640	8	14,720
9	Unloading of Tall Plants (1000+10% Wastage=1100)	100 No	82	1100	1,012
10	Carriage of Plants (1100+10% Wastage=1100 above 50 m distance)	100 No	82	1100	1,012
11	Loading of FYM / Vermicompost	1 trolley	328	0.1	37
12	Carriage of Vermicompost (10 kms)	1 trolley	1640	0.1	184
13	Unloading of FYM / Vermicompost	1 trolley	164	0.1	18
14	Planting of Plants (1000 No Including 10% replacement)	100 No	984	1100	12,144
15	Spot Irrigation (1000 Plants)	100 No	205	1000	2,300
16	Application of Insecticide (2 times)	100 No	41	2000	920
17	Application of Fertilizers (2 times)	100 No	41	2000	920
18	Weeding & Hoeing 3 times	100 No	357.52	3000	12,034

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Rupnagar

19	Hand Water 6 months x 2 times =12 times	100 No	205	12000	27,600
20	Replanting of Plants 10%	100 No	579.11	100	650
21	Rejungle Clearance (2 times)	Per Ha.	2378	1.4	3,735
22	Restubbing of Kana (1 time)	Ha.	26836.3	0.4	12,044
23	Watch & Ward for every 10 Ha. (7 months)	Man year	8528	1Man	6,698
				7 Month	
24	Material				
	i) Insecticides/Fertilizers	L/s			10,000
	ii) Vermicompost	L/s			2,500
	iii) POL	L/s			10,000
				Sub Total	2,28,826
Maintenance I Year					
1	Cost of plants for 30% replacement	1 No.	60	300	20,195
2	Reopening of Pits 300 x 0.60 x 0.60 x 0.40	1 m3	59.63	43.2	2,890
3	Refilling of pits with earth in other soils 300 x 0.60 x 0.60 x 0.40	1 m3	27.47	43.2	1,331
4	Loading & Unloading of Plants	1 No.	2.46	300	828
5	Carriage of Plants (300+10% Wastage=330 avg. distance upto 10 km)	500 No	196.2	1	220
6	Spreading of plants pit to pit	100 No	131.2	330	486
7	Re-planting Tall Plants	100 No	329.08	330	1,218
8	Spot Irrigation	100 No.	205	330	759
9	Weeding & Hoeing (thrice)	100 No	357.52	3000	12,034
10	App. Of Fertilizer (two times)	100 No	41	2000	920
11	App. Of Insecticide (two times)	100 No	41	2000	920
12	Hand watering 6 months x 2 times =12 times	100 No	357.52	12000	48,134
13	Rejungle Clearance (2 times)	Ha.	2378	1.4	3,735
14	Restubbing of Kana	Ha.	26836	0.4	12,043
15	Watch & Ward for every 10 Ha. (10 months)	Man year	8528	1/10 Man yr	9,568
16	POL	L/s			5,000
17	Material and supply	L/s			5,000
				Sub Total	1,25,283


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Maintenance II Year					
1	Cost of plants for 15% replacement	No.	60	150	10,098
2	Reopening of Pits 150 x 0.60 x 0.60 x 0.40	1 m3	59.63	21.6	1,445
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	666
4	Loading & Unloading of Plants	1 No.	2.46	150	414
5	Carriage of Plants (No. of plants = 150 avg. distance upto 10 km.)	500 No	196.2	1	220
6	Spreading of plants pit to pit	100 No	131.2	150	221
7	Re-planting to tall plants	100 No	229.08	150	386
8	Spot Irrigation	100 No.	205	150	345
9	Weeding & Hoeing (twice)	100 No	357.52	3000	12,034
10	Hand Watering 10 Times	100 No	205	10000	23,000
11	Rejungle Clearance (2 times)	Ha.	2378	1.4	3,735
12	Stubbing of Kana	Ha.	26836	0.4	12,043
13	Pruning to plants	100 No.	387.61	200	870
14	Watch & Ward for every 10 Ha.	Man year	8528	1/10 Man yr	9,568
15	POL	L/s			5,000
16	Material and supply	L/s			5,000
				Sub Total	85,044

Maintenance III Year					
1	Cost of plants for 10% replacement	1 No.	60	100	6,732
2	Reopening of Pits 100 x 0.60 x 0.60 x 0.40	1 m3	5963	14.4	963
3	Refilling of pits with earth in other soils 100 x 0.60 x 0.60 x 0.40	1 m3	27.47	14.4	444
4	Loading & Unloading of Plants	1 No.	2.46	100	276
5	Carriage of Plants (No. of plants = 100 distance upto 10 km.)	500 No	196.2	1	220
6	Spreading of plants pit to pit	100 No	131.2	100	147
7	Re-planting to plants	100 No	229.08	100	257
8	Spot Irrigation	100 No.	205	100	230
9	Weeding & Hoeing (thrice)	100 No	357.52	3000	12,034
10	Hand Watering (8 times)	100 No	205	8000	18,400
11	Rejungle Clearance (2 times)	Ha.	2378	1.4	3,735
12	Stubbing of Kana	Ha.	26836	0.4	12,043
13	Pruning to plants 20%	100 No.	387.61	200	870
14	Watch & Ward for every 10 Ha.	Man year	8528	1/10 Man yr	9,568
15	POL	L/s			5,000
16	Material and supply	L/s			5,000
				Sub Total	75,919

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Maintenance IV Year					
1	Cost of plants for 5% replacement	1 No.	60	50	3,366
2	Reopening of Pits 50 x 0.60 x 0.60 x 0.40	1 m3	59.63	7.2	482
3	Refilling of pits with earth in other soils 50 x 0.60 x 0.60 x 0.40	1 m3	27.47	7.2	222
4	Loading & Unloading of Plants	1 No.	2.46	50	138
5	Carriage of Plants = 25 avg. distance upto 10 km.)	500 No	196.2	1	220
6	Spreading of plants pit to pit	100 No	131.2	50	74
7	Re-planting to plants	100 No	229.08	50	129
8	Spot Irrigation	100 No.	205	50	115
9	Weeding & Hoeing (twice)	100 No	357.52	3000	12,034
10	Rejungle Clearance (2 times)	Ha.	2378	1	2,668
11	Pruning to plants 30%	100 No.	387.61	600	2,609
12	Watch & Ward for every 10 Ha.	Man year	8528	1/10 Man vr	9,568
15	POL	L/s			5,000
16	Material and supply	L/s			5,000
				Sub Total	41,624
Maintenance V Year					
1	Watch & Ward for every 10 Ha.	Man year	8528	1/10 Man vr	9,568
				Sub Total	9,568
Maintenance VI Year					
1	Watch & Ward for every 10 Ha.	Man year	8528	1/10 Man vr	9,568
				Sub Total	9,568
Maintenance VII Year					
1	Watch & Ward for every 10 Ha.	Man year	8528	1/10 Man vr	9,568
				Sub Total	9,568
Maintenance VIII Year					
1	Watch & Ward for every 10 Ha.	Man year	8528	1/10 Man vr	9,568
				Sub Total	9,568
Maintenance IX Year					
1	Watch & Ward for every 10 Ha.	Man year	8528	1/10 Man vr	9,568
				Sub Total	9,568
Maintenance X Year					
	Watch & Ward for every 10 Ha.	Man year	8528	1/10 Man vr	9,568
				Sub Total	9,568
				TOTAL	6,14,103

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	Over Head expenses 5%				30,705
	Enhancement due to wage escalation @10%				61,410
				G.Total	7,06,218
				Or Say	7,06,218
Note:- The watch and ward in subsequent years will carry out the necessary operations of Pruning					
	Total Cost per plant (in Rs)		706		
	Total Cost of Plantation of 81400 Plants	1 Plant	706	81400	574,86,184
Protection Measures & Machinery					
	Chain Link Fencing (detailed estimate attached)	-	-	-	82,47,600
	Watch Tower	1	10,00,000	1	10,00,000
	Check Post	L/s		1	5,00,000
	Tractor - Swaraj 855	L/s		1	8,00,000
	Tata 407 Mini Truck for Plants	L/s		1	14,00,000
	Trolley	L/s		1	1,50,000
	Movable Engine.	L/s		2	1,00,000
	Water Lifting Pump	L/s		2	50,000
	Pipe for Irrigation (Plastic / Polyvenyl)	L/s			50,000
	Total Expenditure on Protection Measures & Machinery				122,97,600
Grand Total of CA Schme for 81.4 Ha					697,83,784

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Estimated cost per ha of plantation

At wage rate 332.41

Plants Per Hectare : 1000 Nos.

Sr. No.	Name of Work	Unit	New Unit Cost (in Rs.)	Qty.	New Amount
Nursery					
	Nursery cost of raising plants	No.	14.24	1100	15664.00
A Soil Work					
1	Site / Jungle Clearance (50%)	Ha.	5439.40	0.50	2719.70
2	Alignment & Dagbaling	Ha.	997.20	1	997.20
3	Earth works in Digging of Pits 1000 x 0.5 m x 0.5 m x 0.4 m	1 M3	7856.90	100	7856.90
4	Digging of trench 500 x 2.50 x 0.30 x 0.20	75 M3	7856.90	75 M3	5892.67
5	Kana Stubbing 25%	Ha.	27197.00	0.25	6799.25
B Plantation Work					
1	Refilling of Pits 1000x0.5mx0.5mx0.3	100 cum	2719.70	75	2039.78
2	Loading & Unloading of Plants (1000+10% Wastage=1100)	100 No.	41.55	1100	457.05
3	Carriage of Plants	100 No.	199.40	1100	2193.40
4	i) Carriage from site to site	100 No.	12.15	1000	121.50
	ii) Planting of Plants (1000 No. including 10% replacement)	100 No.	362.60	1000	3626.00
5	Spot Irrigation (1000 Plants)	100 No.	299.15	1000	2991.50
6	Application of Insecticide (2 Times)	100 No.	41.55	2000	831.00
7	Application of Fertilizers (2 Times)	100 No.	41.55	2000	831.00
8	Weeding & Hoeing 3 Times	100 No.	362.60	3000	10878.00
9	Hand Watering (12 Times)	100 No.	299.15	12000	35898.00
10	Replanting of Plants 10%	100 No.	969.00	100	969.00
11	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
12	Covering (25% plants) of plants	100 No.	299.15	250	747.88
13	Uncovering of plants (25 %)	100 No.	33.24	250	83.10
14	Re kana Restubbing (1 time)		8310.25	0.25	2077.56
15	Laying out & fixing of Barbed Wire	L/s			7872.00
16	Watch & Ward for every 10 Ha.	Man Year	8632.00	1 Man	8632.00
17	Reopening of trench	100 m3	6040.00	75 m3	4530.00
	i) Insecticides / Fertilizers	L/s			5000.00
	ii) POL and machinery Tools	L/s			5000.00
	iii) Barbed Wire & Pole	L/s			50000.00
	Sub Total				187118.43
Maintenance 1 Year					
1	Cost of raising plants for 30% replacement	No.	14.24	300	4272.00
2	Reopening of Pits 300 x 0.50 x 0.50 x 0.40	100 m3	6040.00	30	1812.00
3	Refilling of pits with earth in other soils 300 x 0.50 x 0.50 x 0.30	100 m3	2719.70	22.5	611.93

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4	Loading & Unloading of Plants	100 No.	41.55	300	124.65
5	Carriage of Plants (300+10% Wastage = 330 avg. distance upto 10 Km.)	100 No.	199.40	33	658.02
6	i) Carriage from site to site	100 No.	12.15	300	36.45
7	Re-Planting to plants	100 No.	362.60	300	1087.80
8	Spot Irrigation	100 No.	299.15	300	897.45
9	Weeding & Hoeing (Three)	100 No.	362.60	3000	10878.00
10	Application of Insecticide (2 Times)	100 No.	41.55	2000	831.00
11	Application of Fertilizers (2 Times)	100 No.	41.55	2000	831.00
12	Hand Watering (10 Times)	100 No.	299.15	10000	29915.00
13	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
14	Restubbing of Kana	Per Ha.	8310.25	0.25	2077.56
15	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
16	Reopening of trench	100 m3	6040.00	75 m3	4530.00
17	Repair of Barbed Wire & Pole	L/s			5000.00
18	POL & Machinery Tools	L/s			5000.00
19	Material and Supply	L/s			5000.00
	Sub Total				84604.82
	2nd Year Maintenance				
1	Cost of raising plants for 15% replacement	No.	14.24	150	2136.00
2	Reopening of Pits 150 x 0.5 x 0.5 x 0.40	100 m3	6040.00	15	906.00
3	Refilling of pits with earth in other soils 150x 0.5 x 0.5 x 0.30	100 m3	2719.70	11.25	305.97
4	Loading & Unloading of Plants	100 No.	41.55	150	62.33
5	Carriage of Plants Wastage = 150 avg. distance upto 10 Km.)	500 No.	199.40	150	299.10
6	i) Carriage from site to site	100 No.	12.15	150	18.23
7	Re-Planting to plants	100 No.	362.60	150	543.90
8	Spot Irrigation	100 No.	299.15	150	448.73
9	Weeding & Hoeing (Twice)	100 No.	362.60	2000	7252.00
10	Hand Watering (7 Times)	100 No.	299.15	7000	20940.50
11	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
12	Pruning to Plants (10%)	100 No.	302.10	100	302.10
13	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
14	Reopeing of trench	100 m3	6040.00	75 m3	4530.00
15	Repair of Barbed Wire & Pole	L/s			5000.00
16	POL & Machinery Tools	L/s			5000.00
17	Material and Supply	L/s			5000.00
	Sub Total				63786.79
	3rd Year Maintenance				
1	Cost of raising plants for 10% replacement	No.	14.24	100	1424.00


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2	Reopening of Pits 100 x 0.50 x 0.50 x 0.40	100 m3	6040.00	10	604.00
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.30	100 m3	2719.70	7.5	203.98
4	Loading & Unloading of Plants	100 No.	41.55	100	41.55
5	Carriage of Plants 100 avg. distance upto 10 Km.)	100 No.	199.40	100	199.40
6	i) Carriage from site to site	100 No.	12.15	100	12.15
7	Re-Planting to plants	100 No.	362.60	100	362.60
8	Spot Irrigation	100 No.	299.15	100	299.15
9	Weeding & Hoeing (twice)	100 No.	362.60	2000	7252.00
10	Hand Watering (5 Times)	100 No.	299.15	5000	14957.50
11	Pruning to Plants 20%	100 No.	302.10	200	604.20
12	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
13	Reopening of trench	100 m3	6040.00	75 m3	4530.00
14	Repair of Barbed Wire & Pole	L/s			5000.00
15	POL & Machinery Tools	L/s			5000.00
16	Material and Supply	L/s			5000.00
	Sub Total				54122.53
4th Year Maintenance					
1	Cost of raising plants for 5% replacement	No.	14.24	50	712.00
2	Reopening of Pits 50 x 0.50 x 0.50 x 0.40	100 m 3	60.40	5	3.02
3	Refilling of pits with earth in other soils 50 x 0.50 x 0.50 x 0.30	100 m3	2719.70	3.75	101.99
4	Loading & Unloading of Plants	100 No.	41.55	50	20.78
5	Carriage of Plants 50 avg. distance upto 10 Km.)	100 No.	199.40	50	99.70
6	i) Carriage from site to site	100 No.	12.15	50	6.08
7	Re-Planting to plants	100 No.	362.60	50	181.30
8	Spot Irrigation	100 No.	299.15	50	149.58
9	Weeding & Hoeing (twice)	100 No.	362.60	2000	7252.00
10	Hand Watering (4 Times)	100 No.	299.15	4000	11966.00
11	Pruning to Plants 30%	100 No.	302.10	300	906.30
12	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
13	Reopening of trench	100 M3	6040.00	75 M3	4530.00
14	Repair of Barbed Wire & Pole	L/s			5000.00
15	POL & Machinery Tools	L/s			5000.00
16	Material and Supply	L/s			5000.00
	Sub Total				49560.73
5th Year Maintenance					
1	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
	Sub Total				8632.00
6th Year Maintenance					

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1	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
	Sub Total				8632.00
	7th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
	Sub Total				8632.00
	8th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
	Sub Total				8632.00
	9th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
	Sub Total				8632.00
	10th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632.00	1/10 Man	8632.00
	Sub Total				8632.00
	Total				490985.30
	Over Head expenses 5%				24549.27
	Wage Enhancement @ 10%				49098.53
	G. Total				564633.10
	Or Say				564633.00

Cost Of Compensatory Afforestation per hac for 7-10 year =564633

Rs 564633 per hac = 564633 * 11.74 = 6628791


 Divisional Forest Officer
 Sangrur Forest Division
 SANGRUR

Diversion of 275.16 ha. (Instead of 109.64ha.) forest land (211.06 ha. Protected forest and 64.10 ha. PLPA area) excluding delisted area(58.75 ha) out of 333.91 ha of total land for Reservoir of Shahpurkandi Dam Project in Tehsil Dhar Kalan Forest Division and district Pathankot. (By. (SANDESH RAJ) EXECUTIVE ENGINEER SHAHPURKANDI DAM DIVISION NO.II, SHAHPURKANDI TOWNSHIP.) Proposal No. FP/PB/HYD/40592/2019
File No. : _____ Page.....

Detail of Land Identified for C.A				
Sr No	Name of Forest Division	Location	Area Suitable for Plantation(in Acre)	Area Suitable for Plantation(in Hectare)
1	Ropar (PSPCL)	Chack Dheran	176.63	71.48
		Batarla	7.66	3.1
		Tibba taprian	16.8	6.8
		Total land of Ropar (PSPCL)	201.09	81.38
2	Pathankot	Railway Line(RSD)	83.88	33.95
		PSPCL UBDC	74.86	30.3
		Hydel Channel (Rajpura)	8.34	3.38
		Hydel Channel (Jugial)	6.18	2.5
		Dam Colony	0.5	0.2
	Total land of RSD , SPK & PSPCL Administration	173.76	70.32	
3	Amritsar	Majitha Division Amritsar		
		Village Tig Nangal (Rest house Tig Nangal)	3.35	1.36
		Village Chogwan/ Kohali (Rest House Kohali)	7.26	2.94
		Village Iban (Rest House Iban)	4.98	2.02
		Village Lopoke (Rest Houst Lopoke)	3.88	1.57
		Village Khalra (Rest House Khalra)	5.87	2.38
		Village Mussa (Rest House Mussa)	5.75	2.33
		Village Lalu Ghumman (Rest House Lalu Ghumman)	3.68	1.49
		Total land of Majitha Division Amritsar	34.77	14.07
	Amritsar	Jandiala Division Amritsar		
		Village Khawaspur (Khwaspur Rest House)	4.66	1.89
		Village Dilwarpur (Dilawarpur rest House)	3.75	1.52
		Village Khara (Khara Rest House)	4.7	1.9
		Village Maliyan (Jandiala Rest House)	6.25	2.53
		Village Bhoewal (Bhoewal Rest House)	4.63	1.87
Village Ghaggar Bhanna (Ghaggar Bhanna Rest house)		3.58	1.45	
Village Jaura (Jaura Rest House)		5.56	2.25	
	Total land of Jandiala Division Amritsar	33.13	13.41	
4	Gurdaspur	Village Talwandi Bharth (Rest House Aliwal)	14	5.67
		Village Wariach (Rest House Kunjar)	4.97	2.01
		Village Bhikari Harni (Rest House Sathiali)	6.51	2.63
		Sri Hargobindpur (Rest House Sri Hargobindpur)	2.56	1.04
		Total land of Gurdaspur, Madhopur & Majitha Division	28.04	11.35
5	Sangrur	Ghaggar River(180 acre)		
		Makror Sahib	18.66	7.55
		Mandvi	42.56	17.22
		Chandu	19.05	7.71
		Shahpur Their	17.67	7.15
		Andanan	32.07	12.98
		Nawan Gaon	6.04	2.44
		Jaswantpura @ Hotipur	6.73	2.72
		Baupur	8.22	3.33
		Banarsi	22.45	9.09
	Khanauri Kalan	6.68	2.7	
		Total land of Drainage Division Sangrur	180.13	72.9
	Sangrur	Lehal Division I.B Patiala		
Gujiran Rest House		5	2.02	
Arkwas Disty		24	9.71	
	Total land of Lehal Division I.B Patiala	29	11.74	
Grand Total			679.93	275.16

Estimated cost per ha of plantation

At wage rate 332.41

Plants Per Hectare : 1000 Nos.

Sr. No.	Name of Work	Unit	New Unit Cost (In Rs.)	Qty.	New Amount
	Nursery				
	Nursery cost of raising plants	No.	14.24	1100	15664
A	Soil Work				
1	Site / Jungle Clearance (50%)	Ha.	5439.4	0.5	2719.7
2	Alignment & Dagbaling	Ha.	997.2	1	997.2
3	Earth works in Digging of Pits 1000 x 0.5 m x 0.5 m x 0.4 m	100 m ³	7856.9	100	7856.9
4	Digging of trench 500 x 2.50 x 0.30 x 0.20	100 m ³	7856.9	75 M ³	5892.67
5	Kana Stubbing 25%	Ha.	27197	0.25	6799.25
B	Plantation Work				
1	Refilling of Pits 1000x0.5mx0.5mx0.3	100 cum	2719.7	75	2039.775
2	Loading & Unloading of Plants (1000+10% Wastage=1100)	100 No.	41.55	1100	457.05
3	Carriage of Plants	100 No.	199.4	1100	2193.4
4	i) Carriage from site to site	100 No.	12.15	1000	121.5
	ii) Planting of Plants (1000 No. including 10% replacement)	100 No.	362.6	1000	3626
5	Spot Irrigation (1000 Plants)	100 No.	299.15	1000	2991.5
6	Application of Insecticide (2 Times)	100 No.	41.55	2000	831
7	Application of Fertilizers (2 Times)	100 No.	41.55	2000	831
8	Weeding & Hoeing 3 Times	100 No.	362.6	3000	10878
9	Hand Watering (12 Times)	100 No.	299.15	12000	35898
10	Replanting of Plants 10%	100 No.	969	100	969
11	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
12	Covering (25% plants) of plants	100 No.	299.15	250	747.875
13	Uncovering of plants (25 %)	100 No.	33.24	250	83.1
14	Re kana Restubbing (1 time)		8310.25	0.25	2077.5625
15	Laying out & fixing of Barbed Wire	L/s			7872
16	Watch & Ward for every 10 Ha.	Man Year	8632	1 Man	8632
17	Reopening of trench	100 m ³	6040	75 m ³	4530
	i) Insecticides / Fertilizers	L/s			5000
	ii) POL and machinery Tools	L/s			5000
	iii) Barbed Wire & Pole	L/s			5000
	Sub Total				50000
	Maintenance 1 Year				187118.4325
1	Cost of raising plants for 30% replacement	No.	14.24	300	4272
2	Reopening of Pits 300 x 0.50 x 0.50 x 0.40	100 m ³	6040	30	1812
3	Refilling of pits with earth in other soils 300 x 0.50 x 0.50 x 0.30	100 m ³	2719.7	22.5	611.9325
4	Loading & Unloading of Plants	100 No.	41.55	300	124.65
5	Carriage of Plants (300+10% Wastage = 330 avg. distance upto 10 Km.)	100 No.	199.4	33	658.02
6	i) Carriage from site to site	100 No.	12.15	300	36.45
7	Re-Planting to plants	100 No.	362.6	300	1087.8
8	Spot Irrigation	100 No.	299.15	300	897.45
9	Weeding & Hoeling (Three)	100 No.	362.6	3000	10878
10	Application of Insecticide (2 Times)	100 No.	41.55	2000	831
11	Application of Fertilizers (2 Times)	100 No.	41.55	2000	831
12	Hand Watering (10 Times)	100 No.	299.15	10000	29915
13	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
14	Restubbing of Kana	Per Ha.	8310.25	0.25	2077.5625
15	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
16	Reopening of trench	100 m ³	6040	75 m ³	4530
17	Repair of Barbed Wire & Pole	L/s			5000
18	POL & Machinery Tools	L/s			5000
19	Material and Supply	L/s			5000
	Sub Total				84604.815

2nd Year Maintenance					
1	Cost of raising plants for 15% replacement	No.	14.24	150	2136
2	Reopening of Pits 150 x 0.5 x 0.5 x 0.40	100 m3	6040	15	906
3	Refilling of pits with earth in other soils 150x 0.5 x 0.5 x 0.30	100 m3	2719.7	11.25	305.96625
4	Loading & Unloading of Plants	100 No.	41.55	150	62.325
5	Carriage of Plants Wastage = 150 avg. distance upto 10 Km.)	500 No.	199.4	150	299.1
6 i)	Carriage from site to site	100 No.	12.15	150	18.225
7	Re-Planting to plants	100 No.	362.6	150	543.9
8	Spot Irrigation	100 No.	299.15	150	448.725
9	Weeding & Hoeing (Twice)	100 No.	362.6	2000	7252
10	Hand Watering (7 Times)	100 No.	299.15	7000	20940.5
11	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
12	Pruning to Plants (10%)	100 No.	302.1	100	302.1
13	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
14	Reopeing of trench	100 m3	6040	75 m3	4530
15	Repair of Barbed Wire & Pole	L/s			5000
16	POL & Machinery Tools	L/s			5000
17	Material and Supply	L/s			5000
Sub Total					63786.79125
3rd Year Maintenance					
1	Cost of raising plants for 10% replacement	No.	14.24	100	1424
2	Reopening of Pits 100 x 0.50 x 0.50 x 0.40	100 m3	6040	10	604
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.30	100 m3	2719.7	7.5	203.9775
4	Loading & Unloading of Plants	100 No.	41.55	100	41.55
5	Carriage of Plants 100 avg. distance upto 10 Km.)	100 No.	199.4	100	199.4
6 i)	Carriage from site to site	100 No.	12.15	100	12.15
7	Planting to plants	100 No.	362.6	100	362.6
8	Spot Irrigation	100 No.	299.15	100	299.15
9	Weeding & Hoeing (twice)	100 No.	362.6	2000	7252
10	Hand Watering (5 Times)	100 No.	299.15	5000	14957.5
11	Pruning to Plants 20%	100 No.	302.1	200	604.2
12	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
13	Reopening of trench	100 m3	6040	75 m3	4530
14	Repair of Barbed Wire & Pole	L/s			5000
15	POL & Machinery Tools	L/s			5000
16	Material and Supply	L/s			5000
Sub Total					54122.5275
4th Year Maintenance					
1	Cost of raising plants for 5% replacement	No.	14.24	50	712
2	Reopening of Pits 50 x 0.50 x 0.50 x 0.40	100 m 3	60.4	5	3.02
3	Refilling of pits with earth in other soils 50 x 0.50 x 0.50 x 0.30	100 m3	2719.7	3.75	101.98875
4	Loading & Unloading of Plants	100 No.	41.55	50	20.775
5	Carriage of Plants 50 avg. distance upto 10 Km.)	100 No.	199.4	50	99.7
6 i)	Carriage from site to site	100 No.	12.15	50	6.075
7	Re-Planting to plants	100 No.	362.6	50	181.3
8	Spot Irrigation	100 No.	299.15	50	149.575
9	Weeding & Hoeing (twice)	100 No.	362.6	2000	7252
10	Hand Watering (4 Times)	100 No.	299.15	4000	11966
11	Pruning to Plants 30%	100 No.	302.1	300	906.3
12	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
13	Reopening of trench	100 M3	6040	75 M3	4530
14	Repair of Barbed Wire & Pole	L/s			5000
15	POL & Machinery Tools	L/s			5000
16	Material and Supply	L/s			5000
Sub Total					49560.73375
5th Year Maintenance					
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
Sub Total					8632

6th Year Maintenance					
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
7th Year Maintenance					
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
8th Year Maintenance					
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
9th Year Maintenance					
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
10th Year Maintenance					
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	Total				490985.3
	Over Head expenses 5%				24549.265
	Wage Enhancement @ 10%				49098.53
	G. Total				564633.095
	Or Say				564633
	Total cost of Compensatory Afforestation				
			Area(in hectares)	Cost per hectare	Total Cost
		TOTAL	11.35	564633	6408584.55


 Divisional Forest Officer,
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 Cuddalore

Estimate cost per ha. of Ridge Model Plantation
Ridge Size :- 1.00 mtr.(B)X0.60mtr.(T)X0.60mtr.(H.T)

Wage Rate: Rs. 342/-
Plants : 1000 No

Sr. No.	Components	Qty.	Unit	Rate/Unit	Cost
A	Nursery				
1	Nursery cost including 10% failures	1100	No	80	88000
				Sub Total (A)	88000
B	Soil Works				
1	Site Clearance	0.5	ha	5921.16	2960.58
2	Alignment & Dagbailing	1	ha	1026	1026
	Earth works (3050 mtr. Long) (1/2 (1.00+0.6) x 0.6 = 0.48x3050=1464 Cmt)	1464	Cmt.	57	83448
3	Ridge Base 1.00 mtr, (T) 0.60, (H) 0.60 (Ridges will be prepared manually or by machine as per site conditions)				
				Sub Total	87434.58
C	Plantation				
1	Loading & Unloading of Plants	1100	No.	0.4218	463.98
2	Digging of Slots (Size 0.50X0.40X0.30(D)M on ridge). = 0.60X1000 No.	60	Cmt.	57	3420
3	Applications of insecticides (one time)	1000	No	0.4218	421.8
4	Application of Fertilizers (2 Times)	2000	No	0.4218	843.6
5	Carriage of Plants Pit-Pit	1000	No	0.1254	125.4
6	Refilling of pits	1000	No	1.3794	1379.4
7	Planting	1000	No	3.0666	3066.6
8	Spot Irrigation (2 times)	2000	No	3.0666	6133.2
				Sub Total (C)	15853.98
D	Maintenance				
1	Replacement of 10% Failures	100	No	3.705	370.5
2	Weeding & Hoeing (1 time)	1000	No	3.705	3705
3	Applications of Fertilizer & Insecticides (1 time)	1000	No	0.4218	421.8
4	Spot irrigation (4 times)	4000	No	3.0666	12266.4
5	Watch & Ward @ 1 man for 10 ha for 7 months	21 days	No	342	7182
				Sub Total (D)	23945.7
E	Material				
1	Insecticide	2.5	Ltr.	440	1100
2	Vermicompost	500	Kg	13	6500
3	FYM	1000	Kg	15	15000
4	Fertilizers (urea and any other fertilizer) 25gm/per Plant	25	Kg	10	250
6	Barbed Wire Fencing	1538	mtr.	350	538300
				Sub Total (E)	561150
				Total	776384.26
				Contingency	46583.0556
				G. Total	822967.3156
1st Year Maintenance of Plantation					
A	1 Nursery cost	200	No	80	16000
2	Replacement of Failure @ 20% including all operation of Planting	200	No	71.3368	14277.36
3	Weeding & Hoeing including Mulching 2 Times	2000	No	3.705	7410
4	Application of fertilizer/Insecticide	2000	No.	0.4218	843.6
5	Spot Irrigation (10 times)	10000	No.	3.0666	30666
6	Repair of Ridges as per Earth work 10% (1 Time)	146.4	Cum	57	8344.8
8	Watch & Ward @ 1 man for 10 ha for 10 months	30 days	No	342	10260
				Sub Total (A)	87801.76
B	Material				
1	Insecticide	2.5	Ltr.	440	1100
2	Fertilizer (Urea and any other Fertilizer) 25 gms/Plant	25	kg	10	250
				Sub Total (B)	1350
				Total	105151.76

Divisional Forest Officer
Sangrur Forest Division
SANGRUR

				Contingency	6309.1056	
				G. Total	111460.8656	
2nd Year Maintenance of Plantation						
A	1	Nursery cost	150	No	80	12000
	2	Replacement of Failure @ 15% including all operation of Planting	150	No	71.3868	10708.02
	3	Weeding & Hoeing including Mulching 2 Times	2000	No	3.705	7410
	4	Spot irrigation (10 times)	10000	No.	3.0666	30666
	5	Repair of Ridges as per Earth work 5% (1 Time)	73.2	Cum	57	4172.4
	6	Watch & Ward @ 1 man for 10 ha for 7 months	21 days	No	342	7182
				Sub Total (A)		72138.42
B						
	1	Material Fertilizer (Urea and any other Fertilizer) 25 gms/Plant	25	kg	10	250
				Sub Total (B)		250
				Total		72388.42
				Contingency		4343.3052
				G. Total		76731.7252
3rd Year Maintenance of Plantation						
A	1	Weeding & Hoeing including Mulching 2 Times	2000	No	3.705	7410
	2	Spot irrigation (10 times)	10000	No.	3.0666	30666
	3	Repair of Ridges as per Earth work 2.5% (1 Time)	36.6	Cum	57	2086.2
	4	Pruning of plants @ 20%	200	No.	4.04	808
	5	Watch & Ward @ 1 man for 10 ha for 7 months	30 days	No	342	7182
				Total		48152.2
				Contingency		2889.132
				G. Total		51041.332
4th Year Maintenance of Plantation						
A	1	Weeding & Hoeing including Mulching 2 Times	2000	No	3.705	7410
	2	Spot irrigation (10 times)	10000	No.	3.0666	30666
	3	Pruning of plants @ 40%	400	No.	4.04	1616
	4	Watch & Ward @ 1 man for 10 ha for 7 months	30 days	No	342	7182
				Total		46874
				Contingency		2812.44
				G. Total		49686.44
5th Year Maintenance						
A	1	Watch & Ward @ 1 man for 10 ha for 7 months	30 days	No	342	7182
				Sub Total		7182
6th Year Maintenance						
A	1	Watch & Ward @ 1 man for 10 ha for 7 months	30 days	No	342	7182
				Sub Total		7182
7th Year Maintenance						
A	1	Watch & Ward @ 1 man for 10 ha for 7 months	30 days	No	342	7182
				Sub Total		7182
8th Year Maintenance						
A	1	Watch & Ward @ 1 man for 10 ha for 7 months	30 days	No	342	7182
				Sub Total		7182
9th Year Maintenance						
A	1	Watch & Ward @ 1 man for 10 ha for 7 months	30 days	No	342	7182
				Sub Total		7182
10th Year Maintenance						
A	1	Watch & Ward @ 1 man for 10 ha for 7 months	30 days	No	342	7182

Divisional Forest Officer
Sangrur Forest Division
SANGRUR

	Sub Total					7182
	Total					1154979.678
	Wage Enhancement @ 10%					115497.9678
	G. Total					1270477.646
other equipment						
1	Pump set	5	No.		0.6	300000
2	Tractor	2	No.		7.5	1500000
3	Trolly	2	No.		1.5	300000
4	Concurrent Monitoring & evaluation vehicle(Scorpio)	1	No.		12.5	1250000
	Total					3350000
	G. Total					4620477.646

Cost Of Compensatory Afforestation per hacfor 7-10 year =1270478

Rs 1270478 per hac =1270478 * 72.9 = 92617846

Grand total = 92617846 + 3350000 Other Equipment = 95967820


 Divisional Forest Officer,
 Sangrur Forest Division
 SANGRUR

	Estimated cost per ha of plantation				
			At wage rate 332.41		
			Plants Per Hectare : 1000 Nos.		
Sr. No.	Name of Work	Unit	New Unit Cost	Qty.	New Amount
	Nursery				
	Nursery cost of raising plants	No.	14.24	1100	15664
A	Soil Work				
1	Site / Jungle Clearance (50%)	Ha.	5439.4	0.5	2719.7
2	Alignment & Dagbaling	Ha.	997.2	1	997.2
3	Earth works in Digging of Pits 1000 x 0.5 m x 0.5 m x	100 m3	7856.9	100	7856.9
4	Digging of trench 500 x 2.50 x 0.30 x 0.20	100 m3	7856.9	75 M3	5892.67
5	Kana Stubbing 25%	Ha.	27197	0.25	6799.25
B	Plantation Work				
1	Refilling of Pits 1000x0.5mx0.5mx0.3	100 cum	2719.7	75	2039.775
2	Loading & Unloading of Plants (1000+10% Wastage)	100 No.	41.55	1100	457.05
3	Carriage of Plants	100 No.	199.4	1100	2193.4
4	i) Carriage from site to site	100 No.	12.15	1000	121.5
	ii) Planting of Plants (1000 No. including 10% replac	100 No.	362.6	1000	3626
5	Spot Irrigation (1000 Plants)	100 No.	299.15	1000	2991.5
6	Application of Insecticide (2 Times)	100 No.	41.55	2000	831
7	Application of Fertilizers (2 Times)	100 No.	41.55	2000	831
8	Weeding & Hoeing 3 Times	100 No.	362.6	3000	10878
9	Hand Watering (12 Times)	100 No.	299.15	12000	35898
10	Replanting of Plants 10%	100 No.	969	100	969
11	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
12	Covering (25% plants) of plants	100 No.	299.15	250	747.875
13	Uncovering of plants (25 %)	100 No.	33.24	250	83.1
14	Re kana Restubbing (1 time)		8310.25	0.25	2077.5625
15	Laying out & fixing of Barbed Wire	L/s			7872
16	Watch & Ward for every 10 Ha.	Man Year	8632	1 Man	8632
17	Reopening of trench	100 m3	6040	75 m3	4530
	i) Insecticides / Fertilizers	L/s			5000

	ii) POL and machinery Tools	L/s			5000
	iii) Barbed Wire & Pole	L/s			50000
	Sub Total				187118.4325
	Maintenance 1 Year				
1	Cost of raising plants for 30% replacement	No.	14.24	300	4272
2	Reopening of Pits 300 x 0.50 x 0.50 x 0.40	100 m3	6040	30	1812
3	Refilling of pits with earth in other soils 300 x 0.50 x 0.50 x 0.40	100 m3	2719.7	22.5	611.9325
4	Loading & Unloading of Plants	100 No.	41.55	300	124.65
5	Carriage of Plants (300+10% Wastage = 330 avg. distance upto 100 m)	100 No.	199.4	33	658.02
6	i) Carriage from site to site	100 No.	12.15	300	36.45
7	Re-Planting to plants	100 No.	362.6	300	1087.8
8	Spot Irrigation	100 No.	299.15	300	897.45
9	Weeding & Hoeing (Three)	100 No.	362.6	3000	10878
10	Application of Insecticide (2 Times)	100 No.	41.55	2000	831
11	Application of Fertilizers (2 Times)	100 No.	41.55	2000	831
12	Hand Watering (10 Times)	100 No.	299.15	10000	29915
13	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
14	Restubbing of Kana	Per Ha.	8310.25	0.25	2077.5625
15	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
16	Reopening of trench	100 m3	6040	75 m3	4530
17	Repair of Barbed Wire & Pole	L/s			5000
18	POL & Machinery Tools	L/s			5000
19	Material and Supply	L/s			5000
	Sub Total				84604.815
	2nd Year Maintenance				
1	Cost of raising plants for 15% replacement	No.	14.24	150	2136
2	Reopening of Pits 150 x 0.5 x 0.5 x 0.40	100 m3	6040	15	906
3	Refilling of pits with earth in other soils 150x 0.5 x 0.5 x 0.40	100 m3	2719.7	11.25	305.96625
4	Loading & Unloading of Plants	100 No.	41.55	150	62.325
5	Carriage of Plants Wastage = 150 avg. distance upto 100 m	500 No.	199.4	150	299.1
6	i) Carriage from site to site	100 No.	12.15	150	18.225
7	Re-Planting to plants	100 No.	362.6	150	543.9
8	Spot Irrigation	100 No.	299.15	150	448.725
9	Weeding & Hoeing (Twice)	100 No.	362.6	2000	7252
10	Hand Watering (7 Times)	100 No.	299.15	7000	20940.5

11	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
12	Pruning to Plants (10%)	100 No.	302.1	100	302.1
13	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
14	Reopeing of trench	100 m3	6040	75 m3	4530
15	Repair of Barbed Wire & Pole	L/s			5000
16	POL & Machinary Tools	L/s			5000
17	Material and Supply	L/s			5000
	Sub Total				63786.79125
	3rd Year Maintenance				
1	Cost of raising plants for 10% replacement	No.	14.24	100	1424
2	Reopening of Pits 100 x 0.50 x 0.50 x 0.40	100 m3	6040	10	604
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.40	100 m3	2719.7	7.5	203.9775
4	Loading & Unloading of Plants	100 No.	41.55	100	41.55
5	Carriage of Plants 100 avg. distance upto 10 Km.)	100 No.	199.4	100	199.4
6	i) Carriage from site to site	100 No.	12.15	100	12.15
7	Re-Planting to plants	100 No.	362.6	100	362.6
8	Spot Irrigation	100 No.	299.15	100	299.15
9	Weeding & Hoeing (twice)	100 No.	362.6	2000	7252
10	Hand Watering (5 Times)	100 No.	299.15	5000	14957.5
11	Pruning to Plants 20%	100 No.	302.1	200	604.2
12	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
13	Reopening of trench	100 m3	6040	75 m3	4530
14	Repair of Barbed Wire & Pole	L/s			5000
15	POL & Machinary Tools	L/s			5000
16	Material and Supply	L/s			5000
	Sub Total				54122.5275
	4th Year Maintenance				
1	Cost of raising plants for 5% replacement	No.	14.24	50	712
2	Reopening of Pits 50 x 0.50 x 0.50 x 0.40	100 m 3	60.4	5	3.02
3	Refilling of pits with earth in other soils 50 x 0.50 x 0.50 x 0.40	100 m3	2719.7	3.75	101.98875
4	Loading & Unloading of Plants	100 No.	41.55	50	20.775
5	Carriage of Plants 50 avg. distance upto 10 Km.)	100 No.	199.4	50	99.7
6	i) Carriage from site to site	100 No.	12.15	50	6.075
7	Re-Planting to plants	100 No.	362.6	50	181.3
8	Spot Irrigation	100 No.	299.15	50	149.575
9	Weeding & Hoeing (twice)	100 No.	362.6	2000	7252

10	Hand Watering (4 Times)	100 No.	299.15	4000	11966
11	Pruning to Plants 30%	100 No.	302.1	300	906.3
12	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
13	Reopening of trench	100 M3	6040	75 M3	4530
14	Repair of Barbed Wire & Pole	L/s			5000
15	POL & Machinery Tools	L/s			5000
16	Material and Supply	L/s			5000
	Sub Total				49560.73375
	5th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	6th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	7th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	8th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	9th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	10th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	Total				490985.3
	Over Head expenses 5%				24549.265
	Wage Enhancement @ 10%				49098.53
	G. Total				564633.095
	Or Say				564633
	Total cost of Compensatory Afforestation				

		Area(in hect)	Cost per hect	Total Cost
		70.32	564633	39704992.56
	Miscellaneous (a) Forest Monitoring Vehicle (Scorpio)			1400000
	(b) Motor Boat for Ecological Monitoring			2499999.89
	(c) Development Forest inspection Hut			7000000
	Grand total			50604992.45
	Net Present Value @ 803000/-per hect.803000 X 275.16			220953480
				271558472.5


Divisional Forest Officer
Pathankot

	Estimated cost per ha of plantation				
			At wage rate 332.41		
				Plants Per Hectare : 1000 Nos	
Sr. No.	Name of Work	Unit	New Unit Cost (i)	Qty.	New Amount
	Nursery				
	Nursery cost of raising plants	No.	14.24	1100	15664
A	Soil Work				
1	Site / Jungle Clearance (50%)	Ha.	5439.4	0.5	2719.7
2	Alignment & Dagbaling	Ha.	997.2	1	997.2
3	Earth works in Digging of Pits 1000 x 0.5 m x 0.5 m x 0.3	100 m3	7856.9	100	7856.9
4	Digging of trench 500 x 2.50 x 0.30 x 0.20	100 m3	7856.9	75 M3	5892.67
5	Kana Stubbing 25%	Ha.	27197	0.25	6799.25
B	Plantation Work				
1	Refilling of Pits 1000x0.5mx0.5mx0.3	100 cum	2719.7	75	2039.775
2	Loading & Unloading of Plants (1000+10% Wastage=1100)	100 No.	41.55	1100	457.05
3	Carriage of Plants	100 No.	199.4	1100	2193.4
4	i) Carriage from site to site	100 No.	12.15	1000	121.5
	ii) Planting of Plants (1000 No. including 10% replacement)	100 No.	362.6	1000	3626
5	Spot Irrigation (1000 Plants)	100 No.	299.15	1000	2991.5
6	Application of Insecticide (2 Times)	100 No.	41.55	2000	831
7	Application of Fertilizers (2 Times)	100 No.	41.55	2000	831
8	Weeding & Hoeing 3 Times	100 No.	362.6	3000	10878
9	Hand Watering (12 Times)	100 No.	299.15	12000	35898
10	Replanting of Plants 10%	100 No.	969	100	969
11	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
12	Covering (25% plants) of plants	100 No.	299.15	250	747.875
13	Uncovering of plants (25 %)	100 No.	33.24	250	83.1
14	Re kana Restubbing (1 time)		8310.25	0.25	2077.5625
15	Laying out & fixing of Barbed Wire	L/s			7872
16	Watch & Ward for every 10 Ha.	Man Year	8632	1 Man	8632
17	Reopening of trench	100 m3	6040	75 m3	4530
	i) Insecticides / Fertilizers	L/s			5000
	ii) POL and machinery Tools	L/s			5000
	iii) Barbed Wire & Pole	L/s			50000

	Sub Total				187118.4325
	Maintenance 1 Year				
1	Cost of raising plants for 30% replacement	No.	14.24	300	4272
2	Reopening of Pits 300 x 0.50 x 0.50 x 0.40	100 m3	6040	30	1812
3	Refilling of pits with earth in other soils 300 x 0.50 x 0.50 x 0.40	100 m3	2719.7	22.5	611.9325
4	Loading & Unloading of Plants	100 No.	41.55	300	124.65
5	Carriage of Plants (300+10% Wastage = 330 avg. distance upto 1000 m)	100 No.	199.4	33	658.02
6 i)	Carriage from site to site	100 No.	12.15	300	36.45
7	Re-Planting to plants	100 No.	362.6	300	1087.8
8	Spot Irrigation	100 No.	299.15	300	897.45
9	Weeding & Hoeing (Three)	100 No.	362.6	3000	10878
10	Application of Insecticide (2 Times)	100 No.	41.55	2000	831
11	Application of Fertilizers (2 Times)	100 No.	41.55	2000	831
12	Hand Watering (10 Times)	100 No.	299.15	10000	29915
13	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
14	Restubbing of Kana	Per Ha.	8310.25	0.25	2077.5625
15	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
16	Reopening of trench	100 m3	6040	75 m3	4530
17	Repair of Barbed Wire & Pole	L/s			5000
18	POL & Machinery Tools	L/s			5000
19	Material and Supply	L/s			5000
	Sub Total				84604.815
	2nd Year Maintenance				
1	Cost of raising plants for 15% replacement	No.	14.24	150	2136
2	Reopening of Pits 150 x 0.5 x 0.5 x 0.40	100 m3	6040	15	906
3	Refilling of pits with earth in other soils 150x 0.5 x 0.5 x 0.40	100 m3	2719.7	11.25	305.96625
4	Loading & Unloading of Plants	100 No.	41.55	150	62.325
5	Carriage of Plants Wastage = 150 avg. distance upto 1000 m	500 No.	199.4	150	299.1
6 i)	Carriage from site to site	100 No.	12.15	150	18.225
7	Re-Planting to plants	100 No.	362.6	150	543.9
8	Spot Irrigation	100 No.	299.15	150	448.725
9	Weeding & Hoeing (Twice)	100 No.	362.6	2000	7252

10	Hand Watering (7 Times)	100 No.	299.15	7000	20940.5
11	Rejungle Clearance (2 Times)	Per Ha.	2409.95	1	2409.95
12	Pruning to Plants (10%)	100 No.	302.1	100	302.1
13	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
14	Reopeing of trench	100 m3	6040	75 m3	4530
15	Repair of Barbed Wire & Pole	L/s			5000
16	POL & Machinary Tools	L/s			5000
17	Material and Supply	L/s			5000
	Sub Total				63786.79125
	3rd Year Maintenance				
1	Cost of raising plants for 10% replacement	No.	14.24	100	1424
2	Reopening of Pits 100 x 0.50 x 0.50 x 0.40	100 m3	6040	10	604
3	Refilling of pits with earth in other soils 100 x 0.50 x 0.50 x 0.40	100 m3	2719.7	7.5	203.9775
4	Loading & Unloading of Plants	100 No.	41.55	100	41.55
5	Carriage of Plants 100 avg. distance upto 10 Km.)	100 No.	199.4	100	199.4
6 i)	Carriage from site to site	100 No.	12.15	100	12.15
7	Re-Planting to plants	100 No.	362.6	100	362.6
8	Spot Irrigation	100 No.	299.15	100	299.15
9	Weeding & Hoeing (twice)	100 No.	362.6	2000	7252
10	Hand Watering (5 Times)	100 No.	299.15	5000	14957.5
11	Pruning to Plants 20%	100 No.	302.1	200	604.2
12	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
13	Reopening of trench	100 m3	6040	75 m3	4530
14	Repair of Barbed Wire & Pole	L/s			5000
15	POL & Machinary Tools	L/s			5000
16	Material and Supply	L/s			5000
	Sub Total				54122.5275
	4th Year Maintenance				
1	Cost of raising plants for 5% replacement	No.	14.24	50	712
2	Reopening of Pits 50 x 0.50 x 0.50 x 0.40	100 m 3	60.4	5	3.02
3	Refilling of pits with earth in other soils 50 x 0.50 x 0.50 x 0.40	100 m3	2719.7	3.75	101.98875
4	Loading & Unloading of Plants	100 No.	41.55	50	20.775
5	Carriage of Plants 50 avg. distance upto 10 Km.)	100 No.	199.4	50	99.7

6	i) Carriage from site to site	100 No.	12.15	50	6.075
7	Re-Planting to plants	100 No.	362.6	50	181.3
8	Spot Irrigation	100 No.	299.15	50	149.575
9	Weeding & Hoeing (twice)	100 No.	362.6	2000	7252
10	Hand Watering (4 Times)	100 No.	299.15	4000	11966
11	Pruning to Plants 30%	100 No.	302.1	300	906.3
12	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
13	Reopening of trench	100 M3	6040	75 M3	4530
14	Repair of Barbed Wire & Pole	L/s			5000
15	POL & Machinery Tools	L/s			5000
16	Material and Supply	L/s			5000
	Sub Total				49560.73375
	5th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	6th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	7th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	8th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	9th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	10th Year Maintenance				
1	Watch & Ward for every 10 Ha.	Man Year	8632	1/10 Man	8632
	Sub Total				8632
	Total				490985.3

	Over Head expenses 5%				24549.265
	Wage Enhancement @ 10%				49098.53
	G. Total				564633.095
	Or Say				564633
	Total cost of Compensatory Afforestation				
			Area(in hectares	Cost per hect	Total Cost
			27.48	564633	15516114.84



Divisional Forest Officer,
Amritsar Forest Division,
Amritsar.

