

SCHEME FOR COMPENSATORY AFFORESTATION

Detail scheme for Compensatory Afforestation to be carried out in lieu of 1.9413 ha of forest area to be diverted for "132 KV S/C Transmission line from Salakati Grid S/S to APM (Jogighopa)" under Haltugaon Division in Kokrajhar District.

1. Schedule of land:-

District: **Kokrajhar**, Mouza: **4th Part Sidli Mouja**, Village: **Ouguri**, Dag No. **3**

Range: **Jharbari**,

Area to be afforested: **1.9413 ha (15 Bigha)** for CA

2. Description of Area

- i. Topography: a. Plain land
b. Slope: Gentle
- ii. Whether the area is bearing any root stock of vegetation: Almost Barren land

NORM FOR 1.9413 ha BLOCK PLANTATION

Area (ha)	=	1.9413
Spacing (m X m)	=	2 X 2
Number of Saplings/ ha	=	2500
Length of Fence (RM)	=	600
Wage rate for the 1st year(Rs.)	=	273
Increase in wage rate for subsequent years by a factor	=	1.1
Appreciation of material costs by a factor	=	1.1

S.No.	Particulars of works	Units	Qty./ha	Total Qty.	Rate / Unit	Amount (Rs.)
A	ERECTION OF FENCING			@Rs.	273	/DL
	(a) Cost of full Chain-linked Goat Proof fencing (4' ht. with 10 Gauge, 3" dia link) to be fitted on Pre-cast RCC pillars* at 1.8 mt. apart including transportation of fencing materials to site for 600 RM @ Rs. 1016 per RM as per estimate	RMs		600	1016	609600
	(b) Wages of DLs for carrying, fitting, fixing etc. of fencing materials @ 20 DLs/ 100 RM	DLs		120	273	32760
	Sub-total					642360

B	INFRASTRUCTURE IN PLANTATION AREA			-	-	
	Construction of camp hut (atleast one upto 25 ha & thereafter one per every 25 ha) as per estimate	nos.		1	150,000	150000
	Installation of ring/tube well (atleast one upto 10 ha & thereafter two per every 25 ha)	nos.		1	50,000	50000
	Irrigation facility with Diesel generator and hose pipes for watering the nursery and plantation (during dry spells)	nos.		1	50,000	50000
	Cost of tools & implements (One unit upto 25 ha & thereafter one unit per every 25 ha)	nos.		1	10,000	10000
	Cost of RCC signboard & Gate including fitting and fixing of the same (atleast one upto 25 ha & thereafter one per every 25 ha)	nos.		1	60,000	60000
	Camp accessories @ Rs. 10,000/ per camp	nos.		1	10,000	10000
	Construction of Inspection Path 1400 RM @ Rs. 50/- RM	RMs		300	50	15000
	<i>sub total</i>					345000
C	ADVANCE WORK			@Rs.	273	/DL
	Site selection, surveying, demarcation, jungle cutting, burning etc. 20 DLs/ha	DLs	20	38.826	273	10599
	Preparation and acquisition of polypot saplings in the field nursery for planting 2500 Nos. Seedlings/ ha @ Rs.6/- per polypot	nos.	2500	4853.3	6	29120
	Preparation of polypot saplings in the field nursery for vacancy filling					
	a) 25% mortality expected during 1st year (to be planted in the field during the 2nd year) ,i.e., 625 Seedlings/ ha @ Rs.6.5/- per polypot	nos.	625	1213.3	6.5	7887
	b) 20% mortality expected during 2nd year (to be planted in the field during the 3rd year) ,i.e., 500 Seedlings/ ha @ Rs.7/- per polypot	nos.	500	970.65	7	6795
	c) 15% mortality expected during 3rd year (to be planted in the field during the 4th year),i.e., 375 Seedlings/ ha @ Rs.7.5/- per polypot	nos.	375	727.99	7.5	5460
	d) 10% mortality expected during 4th year (to be planted in the field during the 5th year),i.e., 250 Seedlings/ ha @ Rs.8/- per polypot	nos.	250	485.33	8	3883
	Cost of Bamboo, making of stacking & transportation etc	nos.	625	1213.3	1	1213
	Line alignment, carriage of stacking materials and fixing the stacking @ 5 DLs/ha	DLs	5	9.7065	273	2650
	Supervision and Monitoring	L.S.				10000
	<i>Sub total</i>					77606

D	CREATION & 1st YEAR MAINTENANCE			@Rs.	273	/DL
	Soil working, carriage of stumps, polypot seedling and planting at the plantation site including, dibbling of seeds wherever necessary to complete raising of plantation with all necessary operation @ 40 DLs/ ha	DLs	40	78	273	21199
	5 weedings, mulching and fire protection works @ 18 DLs/ha/weeding	DLs	90	175	273	47698
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha	DLs	5	10	273	2650
	Maintenance and protection of field nursery and watch and ward for the plantation area(1DL for 365 days).	DLs		365	273	99645
	Maintenance of camp huts, implements, ring/tube-well, upkeepment of plantation, signboard, documentation, upkeepment of records and other misc. work	L.S.				10000
	Awareness & Monitoring @ Rs. 800/ha	L.S.		1.9413	800	1553
	Sub total					182745
E	2nd YEAR MAINTENANCE			@ Rs.	300	/DL
	5 weedings, fire protection works @ 15 DLs/ha/weeding	DLs	75	146	300	43723
	25% Vacancy filling by 1 year old seedlings from nursery@ 10DLs/ha	DLs	10	19	300	5830
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha	DLs	5	9.7065	300	2915
	Maintenance and protection of field nursery and watch and ward for the plantation area(1DL for 365 days).	DLs		365	300	109610
	Maintenance of camp hut, implements, ring/tube-well upkeepment of plantation, signboard, documentation, upkeepment of records etc.	L.S.				11000
	Supervision Cost	L.S.		1		1553
	Contingency L.S.	L.S.				2500
	sub total					177130
F	3rd YEAR MAINTENANCE			@ Rs.	330	/DL
	4 weedings, fire protection works @15 DLs/ha/weeding	DLs	60	116	330	38476
	20% Vacancy filling by 2 year old seedlings from nursery@ 8DLs/ha	DLs	8	16	330	5130
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha	DLs	5	9.7065	330	3206

	Maintenance and protection of field nursery and watch and ward for the plantation area(1DL for 365 days).	DLs		365	330	120570
	Maintenance of camp hut, implements, ring/tube-well upkeepment of plantation, signboard, documentation, upkeepment of records	L.S.				12100
	Supervision Cost	L.S.		1		1553
	Contingency @ 15 % over previous year	L.S.				2875
	Sub total					183911
G	4th YEAR MAINTENANCE			@ Rs.	363	/DL
	4 weedings, fire protection works @15 dls/ha/weeding	DLs	60	116	363	42324
	15% Vacancy filling by 2 year old seedlings from nursery@ 6DLs/ha	DLs	6	12	363	4232
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha	DLs	5	9.7065	363	3527
	Maintenance and protection of field nursery and watch and ward for the plantation area(1DL for 365 days).	DLs		365	363	132627
	Maintenance of camp hut, implements, ring/tube-well upkeepment of plantation, signboard, documentation, upkeepment of records etc.	L.S.				13310
	Supervision Cost	L.S.		1		1553
	Contingency @ 15 % over previous year	L.S.				3306
	sub total					200880
H	5th YEAR MAINTENANCE			@ Rs.	400	/DL
	Climber cutting, weeding & other silvicultural works and fire protection works @ 15DLs/ha	DLs	15	39	400	15519
	10% Vacancy filling by 2 year old seedlings from nursery@ 4DLs/ha	DLs	4	8	400	3104
	Maintenance & fencing post replacement @ 3% initial cost of material			0.03	609600	18288
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 4 DLs/ha	DLs	4	7.7652	400	3104
	Watch and ward for the plantation area(1DL for 365 days).	DLs		365	400	145890
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				14641
	Supervision Cost	L.S.		1		1553
	Contingency @ 15 % over previous year	L.S.				3802
	sub total					205901

I	6th YEAR MAINTENANCE			@ Rs.	440	/DL
	Climber cutting, other silvicultural works and fire protection works @15 DLs/ha	DLs	15	29	440	12803
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 4 DLs/ha	DLs	4	7.7652	440	3414
	Watch and ward for the plantation area(1DL for 365 days).	DLs		365	440	160479
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				16105
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				4373
	sub total					198727
J	7th YEAR MAINTENANCE			@ Rs.	484	/DL
	Climber cutting, other silvicultural works and fire protection works @ 12 DLs/ha	DLs	12	23	484	11267
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs / ha	DLs	5	9.7065	484	4694
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				17716
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				5028
	sub total					40258
K	8th YEAR MAINTENANCE			@ Rs.	532	/DL
	Climber cutting, other silvicultural works and fire protection works @ 8 DLs/ha	DLs	8	16	532	8262
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs / ha	DLs	5	9.7065	532	5164
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				19487
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				5783
	sub total					40249

I	9th YEAR MAINTENANCE			@ Rs.	585	/DL
	Climber cutting, other silvicultural works and fire protection works @ 7 DLs/ha	DLs	7	14	585	7952
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs / ha	DLs	5	9.7065	585	5680
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				21436
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				6650
	sub total					43272
M	10th YEAR MAINTENANCE			@ Rs.	644	/DL
	Climber cutting, other silvicultural works, fire protection works @ 6 DLs/ha	DLs	6	12	644	7498
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 4 DLs /ha	DLs	4	7.7652	644	4999
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				23579
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				7648
	sub total					45277
Grand Total						2383314
						1191657
						3574972

(Rupees Thirty Five Lakh Seventy Four Thousand Nine Hundred Seventy Two) Only

1. Technical details

Technical details of Compensatory Afforestation Scheme are as follows:-

- (a) Spacing: 2m X 2m
- (b) Species: *Shorea robusta*, *Gmelina arborea*, *Michaelia champaka*, *Bamboo*, *Amlokhi*, *Bohera* etc.
- (c) Plantation Method: Planting through seedlings

Technically Approved by,

Addl. Principal Chief Conservator of Forests
cum
CHD, Forests, BTC, Kokrajhar


 Divisional Forest Officer,
 Haltugaon Division,
 Kokrajhar



SCHEME FOR PLANTATION OF MEDICINAL PLANTS (DWARF SPECIES) UNDER
THE PROPOSED DIVERSION 1.9413 ha FOREST LAND FOR 132KV TRANSMISSION LINE OF AEGCL

Area (ha)	=	1.9413
Spacing (m X m)	=	2 X 2
Number of Saplings/ ha	=	2500
Length of Fence (RM)	=	1602
Wage rate for the 1st year(Rs.)	=	273
Increase in wage rate for subsequent years by a factor	=	1.1
Appreciation of material costs by a factor	=	1.1

S.No.	Particulars of works	Units	Qty./ha	Total Qty.	Rate / Unit	Amount (Rs.)
A	ERECTION OF FENCING			@Rs.	273	/DL
	(a) Cost of full Chain-linked Goat Proof fencing (4' ht. with 10 Gauge, 3" dia link) to be fitted on Pre-cast RCC pillars* at 1.8 mt. apart including transportation of fencing materials to site for 1602 RM @ Rs. 1016 per RM as per estimate	RMs		1602	1016	1627632
	(b) Wages of DLs for carrying, fitting, fixing etc. of fencing materials @ 20 DLs/ 100 RM	DLs		320	273	87469
	Sub-total					1715101
B	INFRASTRUCTURE IN PLANTATION AREA			-	-	
	Construction of camp hut (atleast one upto 25 ha & thereafter one per every 25 ha) as per estimate	nos.		1	150,000	150000
	Installation of ring/tube well (atleast one upto 10 ha & thereafter two per every 25 ha)	nos.		1	50,000	50000
	Irrigation facility with Diesel generator and hose pipes for watering the nursery and plantation (during dry spells)	nos.		1	50,000	50000
	Cost of tools & implements (One unit upto 25 ha & thereafter one unit per every 25 ha)	nos.		1	10,000	10000
	Cost of RCC signboard & Gate including fitting and fixing of the same (atleast one upto 25 ha & thereafter one per every 25 ha)	nos.		1	60,000	60000
	Camp accessories @ Rs. 10,000/ per camp	nos.		1	10,000	10000
	Construction of Inspection Path 1400 RM @ Rs. 50/- RM	RMs		801	50	40050
	sub total					370050

C	ADVANCE WORK			@Rs.	273	/DL
	Site selection, surveying, demarcation, jungle cutting, burning etc. 20 DLs/ha	DLs	20	38.826	273	10599
	Preparation and acquisition of polypot saplings in the field nursery for planting 2500 Nos. Seedlings/ ha @ Rs.8/- per polypot	nos.	2500	4853.3	8	38826
	Preparation of polypot saplings in the field nursery for vacancy filling					
	a) 25% mortality expected during 1st year (to be planted in the field during the 2nd year) ,i.e., 625 Seedlings/ ha @ Rs.9/- per polypot	nos.	625	1213.3	9	10920
	b) 20% mortality expected during 2nd year (to be planted in the field during the 3rd year) ,i.e., 500 Seedlings/ ha @ Rs.10/- per polypot	nos.	500	970.65	10	9707
	c) 15% mortality expected during 3rd year (to be planted in the field during the 4th year),i.e., 375 Seedlings/ ha @ Rs.12/- per polypot	nos.	375	727.99	12	8736
	d) 10% mortality expected during 4th year (to be planted in the field during the 5th year),i.e., 250 Seedlings/ ha @ Rs.14/- per polypot	nos.	250	485.33	14	6795
	Cost of Bamboo, making of stacking & transportation etc	nos.	625	1213.3	1	1213
	Line alignment, carriage of stacking materials and fixing the stacking @ 5 DLs/ha	DLs	5	9.7065	273	2650
	Supervision and Monitoring	L.S.				10000
	Sub total					99445
D	CREATION & 1st YEAR MAINTENANCE			@Rs.	273	/DL
	Soil working, carriage of stumps, polypot seedling and planting at the plantation site including, dibbling of seeds wherever necessary to complete raising of plantation with all necessary operation @ 40 DLs/ ha	DLs	40	78	273	21199
	5 weedings, mulching and fire protection works @ 18 DLs/ha/weeding	DLs	90	175	273	47698
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha	DLs	5	10	273	2650
	Maintenance and protection of field nursery and watch and ward for the plantation area(1DL for 365 days).	DLs		365	273	99645
	Maintenance of camp huts, implements, ring/tube- well, upkeepment of plantation, signboard, documentation, upkeepment of records and other misc. work	L.S.				10000
	Awareness & Monitoring @ Rs. 800/ha	L.S.		1.9413	800	1553
	Sub total					182745

E	2nd YEAR MAINTENANCE			@ Rs.	300	/DL
	5 weedings, fire protection works @ 15 DLs/ha/weeding	DLs	75	146	300	43723
	25% Vacancy filling by 1 year old seedlings from nursery@ 10DLs/ha	DLs	10	19	300	5830
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha	DLs	5	9.7065	300	2915
	Maintenance and protection of field nursery and watch and ward for the plantation area(1DL for 365 days).	DLs		365	300	109610
	Maintenance of camp hut, implements, ring/tube-well upkeepment of plantation, signboard, documentation, upkeepment of records etc.	L.S.				11000
	Supervision Cost	L.S.		1		1553
	Contingency L.S.	L.S.				2500
	sub total					177130
F	3rd YEAR MAINTENANCE			@ Rs.	330	/DL
	4 weedings, fire protection works @15 DLs/ha/weeding	DLs	60	116	330	38476
	20% Vacancy filling by 2 year old seedlings from nursery@ 8DLs/ha	DLs	8	16	330	5130
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha	DLs	5	9.7065	330	3206
	Maintenance and protection of field nursery and watch and ward for the plantation area(1DL for 365 days).	DLs		365	330	120570
	Maintenance of camp hut, implements, ring/tube-well upkeepment of plantation, signboard, documentation, upkeepment of records	L.S.				12100
	Supervision Cost	L.S.		1		1553
	Contingency @ 15 % over previous year	L.S.				2875
	Sub total					183911
G	4th YEAR MAINTENANCE			@ Rs.	363	/DL
	4 weedings, fire protection works @15 dls/ha/weeding	DLs	60	116	363	42324
	15% Vacancy filling by 2 year old seedlings from nursery@ 6DLs/ha	DLs	6	12	363	4232
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha	DLs	5	9.7065	363	3527
	Maintenance and protection of field nursery and watch and ward for the plantation area(1DL for 365 days).	DLs		365	363	132627

	Maintenance of camp hut, implements, ring/tube-well upkeepment of plantation, signboard, documentation, upkeepment of records etc.	L.S.				13310
	Supervision Cost	L.S.		1		1553
	Contingency @ 15 % over previous year	L.S.				3306
	sub total					200880
H	5th YEAR MAINTENANCE			@ Rs.	400	/DL
	Climber cutting, weeding & other silvicultural works and fire protection works @ 15DLs/ha	DLs	15	39	400	15519
	10% Vacancy filling by 2 year old seedlings from nursery@ 4DLs/ha	DLs	4	8	400	3104
	Maintenance & fencing post replacement @ 3% initial cost of material			0.03	1627632	48829
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 4 DLs/ha	DLs	4	7.7652	400	3104
	Watch and ward for the plantation area(1DL for 365 days).	DLs		365	400	145890
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				14641
	Supervision Cost	L.S.		1		1553
	Contingency @ 15 % over previous year	L.S.				3802
	sub total					236442
I	6th YEAR MAINTENANCE			@ Rs.	440	/DL
	Climber cutting, other silvicultural works and fire protection works @15 DLs/ha	DLs	15	29	440	12803
	Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 4 DLs/ha	DLs	4	7.7652	440	3414
	Watch and ward for the plantation area(1DL for 365 days).	DLs		365	440	160479
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				16105
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				4373
	sub total					198727

J	7th YEAR MAINTENANCE			@ Rs.	484	/DL
	Climber cutting, other silvicultural works and fire protection works @ 12 DLs/ha	DLs	12	23	484	11267
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs / ha	DLs	5	9.7065	484	4694
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				17716
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				5028
	sub total					40258
K	8th YEAR MAINTENANCE			@ Rs.	532	/DL
	Climber cutting, other silvicultural works and fire protection works @ 8 DLs/ha	DLs	8	16	532	8262
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs / ha	DLs	5	9.7065	532	5164
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				19487
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				5783
	sub total					40249
I	9th YEAR MAINTENANCE			@ Rs.	585	/DL
	Climber cutting, other silvicultural works and fire protection works @ 7 DLs/ha	DLs	7	14	585	7952
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs / ha	DLs	5	9.7065	585	5680
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				21436
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				6650
	sub total					43272

M	10 th YEAR MAINTENANCE			@ Rs.	644	/DL
	Climber cutting, other silvicultural works, fire protection works @ 6 DLs/ha	DLs	6	12	644	7498
	Protection work, cattle watching, upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 4 DLs /ha	DLs	4	7.7652	644	4999
	Maintenance of camp hut, implements, ring/tube-well, upkeepment of plantation, signboard, documentation & upkeepment of records etc.	L.S.				23579
	Supervision Cost	L.S.				1553
	Contingency @ 15 % over previous year	L.S.				7648
	<i>sub total</i>					45277
	Grand Total					3533486

(Rupees Thirty Five Lakh Thirty Three Thousand Four Hundred Eighty Six) Only

NOTE:

Cost escalation of 10 % annually has been considered for wages

The norms should be revised annually based on wage rate & cost of materials

*Pre-cast RCC pillar with 5"x5" cross-section- of 6 ft height (1.5 ft below ground & 4.5 ft above ground) with readymade concrete base of 1 ft width for fixing.

** Species: Leteku, Batgila, Kardoi, Amla

Technically Approved by,



Addl. Principal Chief Conservator of Forests
cum
CHD, Forests, BTC, Kokrajhar



Divisional Forest Officer
Haltugaon Division
Kokrajhar

