

Scheme for 55 Ha C.A. Plantation under Bhemiaji Division

Scheme for 55 ha C...
Diversion of 34.32 ha forest land for shifting of 400 kV D/C HVAC Transmission Line (II) from NHPC's 2000MW Lower Subansiri Hydro Electric Project at Biswanath Chariali to Biswanath Chariali in Assam by Power Grid Corporation of India Ltd., Biswanath Chariali.

Preparation and acquisition of poly pot saplings in the field nursery for planting 2500 Nos seedlings/ha @ Rs.8/- per poly pot/stump	DLs	2500	137500	8	1,100,000		
Preparation of poly pot saplings in the field nursery for vacancy filling							
a) 25% mortality expected during 1st year (to be planted in the field during 2nd year) i.e. 625 seedlings/ha @ Rs.8 per poly pot/stump	Nos.	625	34375	8	275,000		
b) 20% mortality expected during 2nd year (to be planted in the field during 3rd year) i.e. 500 seedlings/ha @ Rs.8.5 per poly pot/stump	Nos.	500	27500	8.5	233,750		
c) 15% mortality expected during 3rd year (to be planted in the field during the 4th year) i.e. 375 seedlings/ha @ 9 per poly pot/stump	Nos.	375	20625	9	185,625		
d) 10% mortality expected during 4th year (to be planted in the field during the 5th year) i.e. 250 seedlings/ha @ 9.5 per poly pot/stump	Nos.	250	13750	9.5	130,625		
Cost of Bamboo, making of stacking materials & transportation Line alignment, carriage of stacking materials & fixing the stacking @ 5DLs/ha	DLs	5	275	273	75,075		
<i>Sub total</i>					2,334,750	280,170	23,348
D CREATION & 1ST YEAR MAINTENANCE					@Rs.	273 /DL	
(i) Soil working, carriage of stumps, poly pot seedlings and planting at the plantation site including, dibbling of seeds wherever necessary to complete raising of plantation with all necessary operations @ 40 DLs/ha	DLs	40	2200	273	600,600		
5 weeding, mulching and fire protection works @ 18 DLs/ha/ weeding	DLs	90	4950	273	1,351,350		
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @ 5DLs/ha	DLs	5	275	273	75,075		
Maintenance and protection of field nursery (1 DL for 365 days) and watch and ward for plantation area (2 DL for 365 days)	DLs	3	1095	273	298,935		
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work (Rs.10000/camp)	LS	3	10000		30,000		
Supervision and Monitoring	LS				20,000		
Awareness Generation	LS				10,000		
<i>Sub total</i>					2,385,960	286,315	23,860
E 2ND YEAR MAINTENANCE					@ Rs.	300 /DL	
5 weeding, mulching and fire protection works @ 15 DLs/ha/ weeding	DLs	75	4125	300	1,237,500		
25% vacancy filling by 1 year old seedlings from nursery @ 10 DLs/ha	DLs	10	550	300	165,000		
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @ 5DLs/ha	DLs	5	275	300	82,500		
Maintenance and protection of field nursery (1 DL for 365 days) and watch and ward of plantation area (2 DL for 365 days)	DLs	3	1095	300	328,500		
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS				33,000		

Supervision and Monitoring @ 1.5% over previous year Contingency	1.S			23,000		
				10,000		
				1,879,500	225,540	18,795
						187,950
						2,311,785
G 4th YEAR MAINTENANCE						
4 weeding, mulching and fire protection works @ 15 DLs/ ha/ weeding	DLs	60	3300	330	1,089,000	
20% vacancy filling by 2 year old seedlings from nursery @ 8 DLs/ ha	DLs	8	440	330	145,200	
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @ 5DLs/ha	DLs	5	275	330	90,750	
Maintenance and protection of field nursery (1 DL. for 365 days) and watch and ward for plantation area (2 DL. for 365 days)	DLs	3	1095	330	361,350	
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS			36,300		
Supervision and Monitoring @ 15% over previous year	LS			26,450		
Contingency @ 15% over previous year	LS			11,500		
				1,760,550	211,266	17,606
						176,055
						2,165,477
G 4th YEAR MAINTENANCE						
4 weeding, mulching and fire protection works @ 15 DLs/ ha/ weeding	DLs	60	3300	363	1,197,900	
15% vacancy filling by 2 year old seedlings from nursery @ 6 DLs/ ha	DLs	6	330	363	119,790	
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @ 5DLs/ha	DLs	5	275	363	99,825	
Maintenance and protection of field nursery (1 DL. for 365 days) and watch and ward for plantation area (2 DL. for 365 days)	DLs	3	1095	363	397,485	
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS			39,930		
Supervision and Monitoring @ 15% over previous year	LS			30,418		
Contingency @ 15% over previous year	LS			13,225		
				1,898,573	227,829	18,986
						189,857
						2,335,244
H 5th YEAR MAINTENANCE						
Climber cutting, weeding & other silvicultural works and fire protection works @ 15 DL/ha	DLs	15	825	399	329,175	
10% vacancy filling by 2 year old seedlings from nursery @ 4 DLs/ ha	DLs	4	220	399	87,780	
Maintenance & Fencing post replacement @ 3% initial cost of material			0.03	3,805,936	114,178	
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @ 4 DLs/ha	DLs	4	220	399	87,780	
Maintenance and protection of field nursery (1 DL. for 365 days) and watch and ward for plantation area (2 DL. for 365 days)	DLs	3	1095	399	436,905	
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS			43,923		

Supervision and Monitoring <i>at 15% over previous year</i>	1.S				34,980			
Contingency <i>at 15% over previous year</i>	1.S				15,209			
	<i>Sub total</i>				1,149,930	137,992	11,499	114,993
I 8th YEAR MAINTENANCE					@ Rs.	439 /DL		
Climber cutting, weeding & other silvicultural works and fire protection works <i>at 15 DL/ha</i>	DLS	15	825	439	362,175			
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis <i>at 4 DL/s. ha</i>	DLS	4	220	439	96,580			
Watch and ward for plantation area (2 DL for 365 days)	DLS	2	730	439	320,470			
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work <i>at 10% over previous year</i>	LS				48,315			
Supervision and Monitoring <i>at 15% over previous year</i>	LS				40,227			
Contingency <i>at 15% over previous year</i>	LS				17,490			
	<i>Sub total</i>				885,258	106,231	8,853	88,526
J 7th YEAR MAINTENANCE					@ Rs.	483 /DL		
Climber cutting, weeding & other silvicultural works and fire protection works <i>at 12 DL/ha</i>	DLS	12	660	483	318,780			
Protection work, cattle watching, upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis <i>at 5 DL/s/ ha</i>	DLS	5	275	483	132,825			
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work <i>at 10% over previous year</i>	LS				53,147			
Supervision and Monitoring <i>at 15% over previous year</i>	LS				46,261			
Contingency <i>at 15% over previous year</i>	LS				20,114			
	<i>Sub total</i>				571,127	68,535	5,711	57,113
K 8th YEAR MAINTENANCE					@ Rs.	531 /DL		
Climber cutting, weeding & other silvicultural works and fire protection works <i>at 8 DL/ha</i>	DLS	8	440	531	233,640			
Protection work, cattle watching, upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis <i>at 5 DL/s/ ha</i>	DLS	5	275	531	146,025			
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work <i>at 10% over previous year</i>	LS				58,462			
Supervision and Monitoring <i>at 15% over previous year</i>	LS				53,200			
Contingency <i>at 15% over previous year</i>	LS				23,131			
	<i>Sub total</i>				514,458	61,735	5,145	51,446
L 9th YEAR MAINTENANCE					@ Rs.	584 /DL		
Climber cutting, weeding & other silvicultural works and fire protection works <i>at 7 DL/ha</i>	DLS	7	385	584	224,840			

Protection work, cattle watching, upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @5 DLs/ ha	DLs	5	275	584	160,600			
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS				64,308			
Supervision and Monitoring @ 15% over previous year	LS				61,180			
Contingency @ 15% over previous year	LS				26,600			
M 10th YEAR MAINTENANCE				<i>Sub total</i>	537,528	64,503	5,375	53,753
Climber cutting, weeding & other silvicultural works and fire protection works @ 6 DL/ha	DLs	6	330	642	211,860			
Protection work, cattle watching, upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @4 DLs/ ha	DLs	4	220	642	141,240			
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS				70,738			
Supervision and Monitoring @ 15% over previous year	LS				70,358			
Contingency @ 15% over previous year	LS				30,590			
Over Head Cost @ 50% of Total C.A. Cost				<i>Sub total</i>	524,786	62,974	5,248	52,479
Total C.A. Cost								645,487
Grand Total								23,688,824
								11,844,412
								35,533,236

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

DNM

Divisional Forest Officer
Dhemaji Division
Dhemaji

Scheme for 15 Ha C.A. Plantation under Dhemaji Division
Diversion of 34.32 ha forest land for shifting of 400 kV D/C HVAC Transmission Line (II) from NHPC's 2000MW Lower Subansiri Hydro Electric Project at Gerukamukh to Biswanath Chariali in Assam by Power Grid Corporation of India Ltd., Biswanath Chariali.

Area (ha)	=	15				
Spacing between plants (m x m)	=	2 x 2				
Number of Saplings/ha	=	2500				
Length of Fence (RM)	=	1637				
Wage Rate for first year (Rs.)	=	275				
Increase in wages for subsequent years by a factor	=	1.1				
Appreciation of material cost by a factor	=	1.1				

S.N.	Particulars of works	Units	Qty./ha	Total Qty.	Rate / Unit	Amount (Rs.)	Applicable rate of GST/ Cess etc.	Total Amount
					@Rs.	/DL	GST	Contractor's Profit
A CONSTRUCTION OF CHAIN LINK FENCE								
(i) Cost of full chain link goat proof fencing (4" hi with 10 gauge 3" dia link) with 3 strand barbed wire (one strand below the chain link and two strand above the chain link) to be fitted on pre cast RCC pillars of specific specification and size as per detail specification attached at 2.5m apart. Dct estimate								
		RM		1.016	1,663.192			
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	1	150.000	150.000		
Installation of ring/tube well (atleast one upto 10 ha & thereafter two per every 25 ha)								
		Nos.	1	1	50.000	50.000		
Irrigation facility with diesel generator and hose pipes for watering the nursery and plantation (during dry spells)								
		Nos.	1	1	50.000	50.000		
Cost of tools and implements (atleast one unit upto 25 ha & thereafter one unit per every 25 ha)								
		Nos.	1	1	10,000	10,000		
Cost of RCC signboard & gate including fitting and fixing of the same (atleast one unit upto 25 ha & thereafter one unit per every 25 ha)								
		Nos.	1	1	60,000	60,000		
Construction of Inspection Path (calculated at 80% of the total perimeter length) = 1310 RM (@ Rs.50/ RM)								
		RM		1310	50	65,500		
Construction of staff quarters as per estimate								
		Nos.	1	1	800,000	800,000		
Provision of solar energy for staff quarters including installation								
		Nos.	1	1	70,000	70,000		
C ADVANCE WORK								
<i>Sub total</i>								
		@Rs.	273	1,265,500	88,585	12,655		0
		/DL						1,366,740

(i) Site selection, surveying, demarcation, jungle cutting, felling etc. @ 20 DLs/ ha						
Preparation and acquisition of poly pot saplings in the field nursery for planting 2500 Nos. seedlings/ ha @ Rs.8/- per poly pot/stump						
Preparation of poly pot saplings in the field nursery for vacancy filling						
a) 25% mortality expected during 1st year (to be planted in the field during 2nd year) i.e. 625 seedlings/ ha @ Rs.8 per poly pot/stump						
b) 20% mortality expected during 2st year (to be planted in the field during 3rd year) i.e. 500 seedlings/ ha @ Rs.8.5 per poly pot/stump						
c) 15% mortality expected during 3rd year (to be planted in the field during 4th year) i.e. 375 seedlings/ ha @ 9 per poly pot/stump						
d) 10% mortality expected during 4rd year (to be planted in the field during the 5th year) i.e. 250 seedlings/ ha @ 9.5 per poly pot/stump						
Cost of Bamboo, making of stacking & transportation						
Line alignment, carriage of stacking materials & fixing the stacking @ 5DLs/ ha						
D CREATION & 1ST YEAR MAINTENANCE		<i>Sub total</i>	<i>@Rs.</i>	<i>273 /DL</i>	<i>636,750</i>	<i>76,410</i>
(i) Soil working, carriage of stumps, poly pot seedlings and planting at the plantation site including dibbling of seeds wherever necessary to complete raising of plantation with all necessary operations @ 40 DLs/ ha						
5 weeding, mulching and fire protection works @ 18 DLs/ ha/ weeding						
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @5DLs/ ha						
Maintenance and protection of field nursery (1 DL, for 365 days) and watch and ward for plantation area (1 DL, for 365 days)						
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work (Rs.1000/-/ camp)						
Supervision and Monitoring						
Awareness Generation						
E 2ND YEAR MAINTENANCE						
5 weeding, mulching and fire protection works @ 15 DLs/ ha/ weeding		<i>Sub total</i>	<i>@Rs.</i>	<i>300 /DL</i>	<i>812,115</i>	<i>97,454</i>
25% vacancy filling by 1 year old seedlings from nursery @ 10 DLs/ ha						
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @5DLs/ ha						
Maintenance and protection of field nursery (1 DL, for 365 days) and watch and ward for plantation area (1 DL, for 365 days)						

Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year						
Contingency						
F 3rd YEAR MAINTENANCE		<i>Sub total</i>	<i>@ Rs.</i>	<i>330 /DL</i>	<i>690,000</i>	<i>82,800</i>
4 weeding, mulching and fire protection works @ 15 DLs/ ha/ weeding	DLs	60	900	330	297,000	
20% vacancy filling by 2 year old seedlings from nursery @ 8 DLs/ha	DLs	8	120	330	39,600	
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @ 5DLs/ ha	DLs	5	75	330	24,750	
Maintenance and protection of field nursery (1 DL for 365 days) and watch and ward for plantation area (1 DL for 365 days)	DLs	2	730	330	240,900	
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS			36,300		
Supervision and Monitoring @ 15% over previous year	LS			26,450		
Contingency @ 15% over previous year	LS			11,500		
G 4th YEAR MAINTENANCE		<i>Sub total</i>	<i>@ Rs.</i>	<i>363 /DL</i>	<i>676,500</i>	<i>81,180</i>
4 weeding, mulching and fire protection works @ 15 DLs/ ha/ weeding	DLs	60	900	363	326,700	
15% vacancy filling by 2 year old seedlings from nursery @ 6 DLs/ ha	DLs	6	90	363	32,670	
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @ 5DLs/ ha	DLs	5	75	363	27,225	
Maintenance and protection of field nursery (1 DL for 365 days) and watch and ward for plantation area (1 DL for 365 days)	DLs	2	730	363	264,990	
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS			39,930		
Supervision and Monitoring @ 15% over previous year	LS			30,418		
Contingency @ 15% over previous year	LS			13,225		
		<i>Sub total</i>	<i>@ Rs.</i>	<i>399 /DL</i>	<i>735,158</i>	<i>88,219</i>
H 5th YEAR MAINTENANCE					<i>7,352</i>	<i>73,516</i>
Climber cutting, weeding & other silvicultural works and fire protection works @ 15 DL/ha	DLs	15	225	399	89,775	
10% vacancy filling by 2 year old seedlings from nursery @ 4 DLs/ha	DLs	4	60	399	23,940	
Maintenance & Fencing post replacement @ 3% initial cost of material			0.03	1,663.192	49,896	
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @4 DLs/ ha	DLs	4	60	399	23,940	

Maintenance and protection of field nursery (1 DL. for 365 days) and watch and ward for plantation area (1 DL. for 365 days)	DLs	2	730	399	201,270				
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work <i>at 10%</i> over previous year	LS				43,923				
Supervision and Monitoring <i>at 15%</i> over previous year	LS				34,980				
Contingency <i>at 15%</i> over previous year	LS				15,209		5,729	57,293	704,707
	<i>Sub total</i>				572,933	68,752			
I 6th YEAR MAINTENANCE				@ Rs.	439 /DL				
Climber cutting, weeding & other silvicultural works and fire protection works <i>@ 15</i> DL/ha	DLs	15	225	439	98,775				
Upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis <i>@ 4</i> DL.s/ha	DLs	4	60	439	26,340				
Watch and ward for plantation area (1 DL. for 365 days)	DLs	1	365	439	160,235				
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work <i>at 10%</i> over previous year	LS				48,315				
Supervision and Monitoring <i>at 15%</i> over previous year	LS				40,227				
Contingency <i>at 15%</i> over previous year	LS				17,490				
	<i>Sub total</i>			@ Rs.	391,383	46,966	3,914	39,138	481,400
J 7th YEAR MAINTENANCE				@ Rs.	483 /DL				
Climber cutting, weeding & other silvicultural works and fire protection works <i>@ 12</i> DL/ha	DLs	12	180	483	86,940				
Protection work, cattle watching, upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis <i>@ 5</i> DL.s/ha	DLs	5	75	483	36,225				
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work <i>at 10%</i> over previous year	LS				53,147				
Supervision and Monitoring <i>at 15%</i> over previous year	LS				46,261				
Contingency <i>at 15%</i> over previous year	LS				20,114				
	<i>Sub total</i>			@ Rs.	242,687	29,122	2,427	24,269	298,505
K 8th YEAR MAINTENANCE				@ Rs.	531 /DL				
Climber cutting, weeding & other silvicultural works and fire protection works <i>@ 8</i> DL/ha	DLs	8	120	531	63,720				
Protection work, cattle watching, upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis <i>@ 5</i> DL.s/ha	DLs	5	75	531	39,825				
Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work <i>at 10%</i> over previous year	LS				58,462				
Supervision and Monitoring <i>at 15%</i> over previous year	LS				53,200				

Contingency @ 15% over previous year					23,131				
L	9th YEAR MAINTENANCE	<i>Sub total</i>			@ Rs.	584 /DL	238,338	28,601	2,383
	Climber cutting, weeding & other silvicultural works and fire protection works @ 7 DL/ha								
	Protection work, cattle watching, upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @ 5 DLs/ha	DLs	7	105	584	61,320			
	Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS	5	75	584	43,800			
	Supervision and Monitoring @ 15% over previous year	LS				61,180			
	Contingency @ 15% over previous year	LS				26,600			
M	10th YEAR MAINTENANCE	<i>Sub total</i>			@ Rs.	642 /DL	257,208	30,865	2,572
	Climber cutting, weeding & other silvicultural works and fire protection works @ 6 DL/ha	DLs	6	90	642	57,780			
	Protection work, cattle watching, upkeepment of plantation, making of inspection paths, repairing of fence etc. on day to day basis @ 4 DLs/ha	DLs	4	60	642	38,520			
	Maintenance of camp huts, implements, ring/tube well, upkeepment of plantation, signboard, documentation, upkeepment of records and other miscellaneous work @ 10% over previous year	LS				70,738			
	Supervision and Monitoring @ 15% over previous year	LS				70,358			
	Contingency @ 15% over previous year	LS				30,590			
	<i>Sub total</i>					267,986	32,158	2,680	26,799
	Total C.A. Cost								329,623
	Over Head Cost @ 50% of Total C.A. Cost								9,953,887
	Grand Total								4,976,943
									14,930,830

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

Dhemaji
Divisional Forest Officer
Dhemaji Division
Dhemaji