

**NORM FOR 41.44 HA BLOCK PLANTATION AGAINST ONGC DRILLING LOCATION 6 TRUNK PIPELINE
REPLACEMENT PROJECT**

Area: 41.44 Ha.

Spacing (m x m) : 2 x2

Number of Sapling/Ha: 2500

Length of Fence (RM) : 2643

Wage rate for the 1st year (Rs.) : 250.00

Increase in wage rate for subsequent years by a factor: 1.1

Appreciation of material costs by a factor: 1.1

Sl	Particulars of works	Unit	Qty/ Ha	Total Qty	Rate/ Unit	Amount (in Rs)
A. FRECTION OF FENCING @Rs.250/Dls.						
1	(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 2643 RM @Rs.800 per RM as per estimate.	RMS		2643	800	2114400.00
2	(b) Waes of DLs for carrying, fitting, fixing etc of fencing materials @ 20 Dls/100 RM	Dls		610	250	152500.00
Sub-Total						2266900.00
B. INFRASTRUCTURE IN PLANTATION AREA @Rs.250/Dls.						
1	Construction of camp hut (atleast one upto 25Ha & thereafter one per every 25ha) as per estimate	Nos		1	150000	150000.00
2	Installation of ring/tube well (atleast one upto 25Ha & thereafter one per every 25ha)	Nos		1	50000	50000.00
3	Irrigation facility with Diesel generator and hose pipes for watering the nursery and plantation (during dry spells)	Nos		1	50000	50000.00
4	Cost of tolls & implements (one unit upto 25 Ha & thereafter one unit per every 25 Ha)	Nos.		1	10000	10000.00
5	Cost of RCC signboard & Gate including fitting and fixing of the same (atleast one upto 25Ha & thereafter one per every 25ha)	Nos.		1	60000	60000.00
6	Camp accessories @ Rs.10,000/per camp	Nos.		1	10000	10000.00
7	Construction of Inspection Path 1300 Rm @Rs.50/-RM	RMS		1300	50	65000.00
Sub Total						395000.00
C. ADVANCE WORK @Rs.250/Dls.						
1	site selection, surveying, demarcation, jungle cutting, burning etc 20 Dls/ha	Dls	20	828.8	250	207200.00

2	Preparation and acquisition of polypot saplings in the field nursery for planting 2500 Nos. Seedlings/Ha @Rs.6/- per polypot.	Nos.	2500	103600	6	621600.00
Sub Total						828800.00
1	Preparation of polypot saplings in the field nursery for vacancy filling.					
2	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	103600	6.5	673400.00
3	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	20720	7	145040.00
4	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	15540	7.5	116550.00
5	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	10360	8	82880.00
6	Cost of Bamboo, making of stacking & transportation etc.	Nos.	625	25900	1	25900.00
7	Line alignment, carriage of stacking materials and fixing the stacking @ 5 Dls/ha	Dls	5	207.2	250	51800.00
8	Supervision and Monitoring	L.S.				10000.00
Sub Total						1105570.00
D) CREATION & 1ST YEAR MAINTENANCE @Rs.250/Dls.						
1	Soil working carriage of stumps, polypot seedling and planting at the plantation site including, dibbing of seeds wherever necessary to complete raising of plantation with all necessary operation @ 40 Dls/ha.	Dls	40	1657.6	250	414400.00
2	5 weeding, mulching and fire protection works @ 18 Dls/ha/weeding	Dls	90	745.99	250	186497.50
3	Upkeepment of plantation and making of inspection path, repairing of fence etc on day to day basis @ 5Dls/ha	Dls	5	207.2	250	51800.00
4	Maintenance and protection of field nursery and watch and ward for the plantation area (Dls for 365 days)	Dls		365	250	91250.00

7	Contingency @ 35% over previous year	L.S.				3875.00
Sub Total						1043041.50

5	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records and other misc work.	L.S.				10000.00
6	Awareness & monitoring @Rs.800/ha	L.S.		41.44	800	33152.00
					Sub Total	787099.50
	E. 2nd YEAR MAINTENANCE				@Rs.275/Dls.	
1	5 weedings, fire protection works @ 15 Dls/ha/weeding	Dls	75	3108	275	854700.00
2	25% Vacancy filling by 1 year old seedlings from nursery @ 10 Dls/ha	Dls	10	414.4	275	113960.00
3	Upkeepment of plantation and making of inspection path, repairing of fence etc on day to day basis @ 5Dls/ha	Dls	5	207.2	275	56980.00
4	Maintenance and protection of field nursery and watch and ward for the plantation area (Dls for 365 days)	Dls		365	275	100375.00
5	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records etc.	L.S.				11000.00
6	Supervision Cost	L.S.				8000.00
7	Contingency L.S	L.S.				2500.00
					Sub Total	1147515.00
	F) 3rd YEAR MAINTENANCE				@Rs.302.5/Dls.	
1	4 weedings, fire protection works @ 15 Dls/ha/weeding	Dls	60	2468.4	302.5	746691.00
2	20% Vacancy filling by 2 year old seedlings from nursery @ 8 Dls/ha	Dls	8	331.52	302.5	100284.80
3	Protection work, cattle, watering, upkeepment of plantation and making of inspection path, repairing of fence etc. on day to day basis @ 5 Dls/ha.	Dls	5	207.2	302.5	62678.00
4	Maintenance and protection of field nursery and watch and ward for the plantation area (Dls for 365 days)	Dls		365	302.5	110412.50
5	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records etc.	L.S.				12100.00
6	Supervision Cost	L.S.				8000.00
7	Contingency @ 15% over previous year	L.S.				2875.00
					Sub Total	1043041.30

4th YEAR MAINTENANCE				@Rs.332.75/Dls.		
1	4 weedings, fire protection works @ 15 Dls/ha/weeding	Dls	60	2486.4	332.75	827349.60
2	15% Vacancy filling by 2 year old seedlings from nursery @ 6 Dls/ha	Dls	6	248.64	332.75	82734.96
3	Upkeepment of plantation and making of inspection path, repairing of fence etc on day to day basis @ 5Dls/ha	Dls	5	207.2	332.75	68945.80
4	Maintenance and protection of field nursery and watch and ward for the plantation area (Dls for 365 days)	Dls		365	332.75	121453.75
5	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records etc.	L.S.				10211.00
6	Supervision Cost	L.S.				4000.00
7	Contingency @ 15% over previous year	L.S.				3306.00
Sub Total						1118001.11
5th YEAR MAINTENANCE				@Rs.336.025/Dls.		
1	Climber cutting, fire protection and other silvicultiural works 15 Dls/Ha	Dls	15	621.6	336.025	208873.14
2	10% Vacancy filling by 2 year old seedlings from nursery @ 4 Dls/ha	Dls	4	165.76	336.025	55699.50
3	Maintenance & fencing post replacement @3%, initial cost of materials			3	2114400	63432.00
4	Upkeepment of plantation and making of inspection path, repairing of fence etc on day to day basis @ 4Dls/ha	Dls	4	165.76	336.025	55699.50
5	Watch and ward for the plantation area (1DL for 365 days)	Dls		365	336.025	122649.13
6	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records etc.	L.S.				14641.00
7	Supervision Cost	L.S.				8000.00
8	Contingency @ 15% over previous year	L.S.				3802.00
Sub Total						532796.27
6 th YEAR MAINTENANCE				@Rs.402.62/Dls		
1	Climber cutting, fire protection and other silvicultiural works 15 Dls/Ha	Dls -	15	621.6	402.62	250268.59
2	Upkeepment of plantation and making of inspection path, repairing of fence etc on day to day basis @ 4Dls/ha	Dls	4	165.76	402.62	66738.29

3	Watch and ward for the plantation area (1DL for 365 days)	Dls		365	402.62	146956.30
4	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records etc.	L.S.				12356.00
5	Supervision Cost	L.S.				8000.00
6	Contingency @ 15% over previous year	L.S.				4373.00
	Sub Total					488692.18
	7th YEAR MAINTENANCE @Rs.442.88/Dls.					
1	Climber cutting, fire protection and other silvicultiural works 12 Dls/Ha	Dls	12	80.28	442.88	35554.41
2	Protection work, cattle, watering, upkeepment of plantation and making of inspection path, repairing of fence etc. on day to day basis @ 5 Dls/ha.	Dls	5	207.2	442.88	91764.73
3	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records etc.	L.S.				13592.00
4	Supervision Cost	L.S.				8000.00
5	Contingency @ 15% over previous year	L.S.				5028.00
	Sub Total					153939.14
	8th YEAR MAINTENANCE @Rs.487.16/Dls.					
1	Climber cutting, fire protection and other silvicultiural works 10 Dls/Ha	Dls	8	331.52	487.16	161450.24
2	Protection work, cattle, watering, upkeepment of plantation and making of inspection path, repairing of fence etc. on day to day basis @ 5 Dls/ha.	Dls	5	207.2	487.16	100939.55
3	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records etc.	L.S.				14950.00
4	Supervision Cost	L.S.				8000.00
5	Contingency @ 15% over previous year	L.S.				5783.00
	Sub Total					291122.79
	9th YEAR MAINTENANCE @Rs.535.87/Dls.					
1	Climber cutting, fire protection and other silvicultiural works 10 Dls/Ha	Dls	7	290.08	535.87	155445.17
2	Protection work, cattle, watering, upkeepment of plantation and making of inspection path, repairing of fence etc. on day to day basis @ 5 Dls/ha.	Dls	5	207.2	535.87	111032.26

3	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records etc.	L.S.				16446.00
4	Supervision Cost	L.S.				4000.00
5	Contingency @ 15% over previous year	L.S.				6650.00
TOTAL						293573.43
10th YEAR MAINTENANCE						@Rs.589.45/Dls.
1	Climber cutting, fire protection and other silvicultiural works 10 Dls/Ha	Dls	6	248.64	589.45	146560.85
2	Protection work, cattle, watering, upkeepment of plantation and making of inspection path, repairing of fence etc. on day to day basis @ 5 Dls/ha.	Dls	4	165.76	589.45	97707.23
3	Maintenance of camp huts, implements, ring/tube well upkeepment of plantation, signboard, documents, upkeepment of records etc.	L.S.				18090.00
4	Supervision Cost	L.S.				4000.00
5	Contingency @ 15% over previous year	L.S.				7648.00
Sub Total						274006.08
Total						10726056.80
Overhead cost @ 50% of total estimate						5363028.40
GRAND TOTAL FOR RAISING 41.44 Ha						16089085.20

Cost escalation of 10% annually has been considered for wages.

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

Pre-cast RCC pillar with 5" x 5" cross-section of 6ft height (1.5 below ground)

Technically Approved

Conservator of Forests
Eastern Assam Circle
Jorhat

Divisional Forest Officer
Golaghat Division
Golaghat