

4) Scheme for 90 ha C.A. Scheme Plantation under Khaeroni Range, Hamren Forest Division
AS PER 50 ha BLOCK PLANTATION NORMS

| | | |
|--|---|-------|
| Area (ha) | = | 90 |
| Spacing (m x m) | = | 2 X 2 |
| Number of Saplings/ ha | = | 2500 |
| Length of Fence (RM) | = | 7380 |
| Wage rate for the 1st year(Rs.) | = | 250 |
| 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. 250 /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 7380 RM @ Rs. 800 per RM as per estimate. | RMs | | 7380 | 800 | 5904000 |
| | (b) Wages of DLs for carrying, fitting, fixing etc. of fencing materials @ 20 DLs/ 100 RM | DLs | | 1476 | 250 | 369000 |
| | Sub-total | | | | | 6273000 |
| B INFRASTRUCTURE IN PLANTATION AREA | | | | | | |
| | Construction of camp hut (atleast one upto 25 ha & thereafter one per every 25 ha) as per estimate | nos. | | 4 | 1,50,000 | 600000 |
| | Installation of ring/tube well (atleast one upto 10 ha & thereafter two per every 25 ha) | nos. | | 8 | 50,000 | 400000 |
| | 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. | | 4 | 10,000 | 40000 |
| | Cost of RCC signboard & Gate including fitting and fixing of the same (atleast one upto 25 ha & thereafter one per every 25 ha) | nos. | | 4 | 60,000 | 240000 |
| | Camp accessories @ Rs. 10,000/ per camp | nos. | | 4 | 10,000 | 40000 |
| | Construction of Inspection Path 3690 RM @ Rs. 50/- RM | RMs | | 3690 | 50 | 184500 |
| | Construction of Staff quarters as per estimate (One unit for 10 to 50 ha & thereafter one unit per every 50 ha) | nos. | | 2 | 8,00,000 | 1600000 |
| | Provision of Solar energy for staff quarters including installation | nos. | | 2 | 70,000 | 140000 |
| | sub total | | | | | 3294500 |
| C ADVANCE WORK @Rs. 250 /DL | | | | | | |
| | Site selection, surveying, demarcation, jungle cutting, burning etc. 20 DLs/ha | DLs | 20 | 1800 | 250 | 450000 |
| | Preparation and acquisition of polypot saplings in the field nursery for planting 2500 Nos. Seedlings/ ha @ Rs.6/- per polypot | nos. | 2500 | 225000 | 6 | 1350000 |
| | 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 | 56250 | 6.5 | 365625 |
| | 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 | 45000 | 7 | 315000 |
| | 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 | 33750 | 7.5 | 253125 |

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|----------|--|----------------------|-----|-------|-----|----------------|
| | 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 | 22500 | 8 | 180000 |
| | Cost of Bamboo, making of stacking & transportation etc | nos. | 625 | 56250 | 1 | 56250 |
| | Line alignment, carriage of stacking materials and fixing the stacking @ 5 DLs/ha | DLs | 5 | 450 | 250 | 112500 |
| | Supervision and Monitoring | L.S. | | | | 20000 |
| | Sub total | | | | | 3102500 |
| D | CREATION & 1st YEAR MAINTENANCE | @Rs. 250 /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 | 3600 | 250 | 900000 |
| | 5 weedings, mulching and fire protection works @ 18 DLs/ha/weeding | DLs | 90 | 8100 | 250 | 2025000 |
| | Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha | DLs | 5 | 450 | 250 | 112500 |
| | Maintenance and protection of field nursery (1 DL for 365 days) and watch and ward for the plantation area(2 DL for 365 days). | DLs | | 1095 | 250 | 273750 |
| | 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. | | 90 | 800 | 72000 |
| | Sub total | | | | | 3393250 |
| E | 2nd YEAR MAINTENANCE | @ Rs. 275 /DL | | | | |
| | 5 weedings, fire protection works @ 15 DLs/ha/weeding | DLs | 75 | 6750 | 275 | 1856250 |
| | 25% Vacancy filling by 1 year old seedlings from nursery@ 10DLs/ha | DLs | 10 | 900 | 275 | 247500 |
| | Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 5 DLs/ha | DLs | 5 | 450 | 275 | 123750 |
| | Maintenance and protection of field nursery (1 DL for 365 days) and watch and ward for the plantation area(2 DL for 365 days). | DLs | | 1095 | 275 | 301125 |
| | 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 | | 72000 |
| | Contingency L.S. | L.S. | | | | 5000 |
| | sub total | | | | | 2616625 |
| F | 3rd YEAR MAINTENANCE | @ Rs. 303 /DL | | | | |
| | 4 weedings, fire protection works @15 DLs/ha/weeding | DLs | 60 | 5400 | 303 | 1633500 |
| | 20% Vacancy filling by 2 year old seedlings from nursery@ 8DLs/ha | DLs | 8 | 720 | 303 | 217800 |
| | 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 | 450 | 303 | 136125 |
| | Maintenance and protection of field nursery (1 DL for 365 days) and watch and ward for the plantation area(2 DL for 365 days). | DLs | | 1095 | 303 | 331238 |
| | Maintenance of camp hut, implements, ring/tube- well upkeepment of plantation, signboard, documentation, upkeepment of records | L.S. | | | | 12100 |
| | Supervision Cost | L.S. | | 1 | | 72000 |
| | Contingency @ 15 % over previous year | L.S. | | | | 5750 |
| | Sub total | | | | | 2408513 |
| G | 4th YEAR MAINTENANCE | @ Rs. 333 /DL | | | | |
| | 4 weedings, fire protection works @15 dls/ha/weeding | DLs | 60 | 5400 | 333 | 1796850 |
| | 15% Vacancy filling by 2 year old seedlings from nursery@ 6DLs/ha | DLs | 6 | 540 | 333 | 179685 |

| | | | | | | |
|----------|---|----------------------|----|------|---------|----------------|
| | Upkeepment of plantation, and fence etc. on day to day basis @ 5 DLs/ha | DLs | 5 | 450 | 333 | 149738 |
| | Maintenance and protection of field nursery (1 DL for 365 days) and watch and ward for the plantation area(2 DL for 365 days). | DLs | | 1095 | 333 | 364361 |
| | 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 | | 72000 |
| | Contingency @ 15 % over previous year | L.S. | | | | 6613 |
| | sub total | | | | | 2582556 |
| H | 5th YEAR MAINTENANCE | @ Rs. 366 /DL | | | | |
| | Climber cutting, weeding & other silvicultural works and fire protection works @ 15DLs/ha | DLs | 15 | 1800 | 366 | 658845 |
| | 10% Vacancy filling by 2 year old seedlings from nursery@ 4DLs/ha | DLs | 4 | 360 | 366 | 131769 |
| | Maintenance & fencing post replacement @ 3% initial cost of material | | | 0.03 | 5904000 | 177120 |
| | Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 4 DLs/ha | DLs | 4 | 360 | 366 | 131769 |
| | Watch and ward for the plantation area(2 DL for 365 days). | DLs | | 730 | 366 | 267198 |
| | 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 | | 72000 |
| | Contingency @ 15 % over previous year | L.S. | | | | 7604 |
| | sub total | | | | | 1460947 |
| I | 6th YEAR MAINTENANCE | @ Rs. 403 /DL | | | | |
| | Climber cutting, other silvicultural works and fire protection works @ 15 DLs/ha | DLs | 15 | 1350 | 403 | 543547 |
| | Upkeepment of plantation, and making of inspection path, repairing of fence etc. on day to day basis @ 4 DLs/ha | DLs | 4 | 360 | 403 | 144946 |
| | Watch and ward for the plantation area(2 DL for 365 days). | DLs | | 730 | 403 | 293918 |
| | Maintenance of camp hut, implements, ring/tube- well, upkeepment of plantation, signboard, documentation & upkeepment of records etc. | L.S. | | | | 16105 |
| | Supervision Cost | L.S. | | | | 72000 |
| | Contingency @ 15 % over previous year | L.S. | | | | 8745 |
| | sub total | | | | | 1079261 |
| J | 7th YEAR MAINTENANCE | @ Rs. 443 /DL | | | | |
| | Climber cutting, other silvicultural works and fire protection works @ 12 DLs/ha | DLs | 12 | 1080 | 443 | 478321 |
| | 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 | 450 | 443 | 199301 |
| | Maintenance of camp hut, implements, ring/tube- well, upkeepment of plantation, signboard, documentation & upkeepment of records etc. | L.S. | | | | 17716 |
| | Supervision Cost | L.S. | | | | 72000 |
| | Contingency @ 15 % over previous year | L.S. | | | | 10057 |
| | sub total | | | | | 777394 |
| K | 8th YEAR MAINTENANCE | @ Rs. 487 /DL | | | | |
| | Climber cutting, other silvicultural works and fire protection works @ 8 DLs/ha | DLs | 8 | 720 | 487 | 350769 |
| | 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 | 450 | 487 | 219231 |

| | | | | | | |
|---|---|------|---|-----|-------|-----------------|
| | Maintenance of camp hut, implements, ring/tube- well, upkeepment of plantation, signboard, documentation & upkeepment of records etc. | L.S. | | | | 19487 |
| | Supervision Cost | L.S. | | | | 72000 |
| | Contingency @ 15 % over previous year | L.S. | | | | 11565 |
| | <i>sub total</i> | | | | | 673052 |
| I | 9 th YEAR MAINTENANCE | | | | @ Rs. | 536 /DL |
| | Climber cutting, other silvicultural works and fire protection works @ 7 DLs/ha | DLs | 7 | 630 | 536 | 337615 |
| | 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 | 450 | 536 | 241154 |
| | Maintenance of camp hut, implements, ring/tube- well, upkeepment of plantation, signboard, documentation & upkeepment of records etc. | L.S. | | | | 21436 |
| | Supervision Cost | L.S. | | | | 72000 |
| | Contingency @ 15 % over previous year | L.S. | | | | 13300 |
| | <i>sub total</i> | | | | | 685505 |
| M | 10 th YEAR MAINTENANCE | | | | @ Rs. | 589 /DL |
| | Climber cutting, other silvicultural works, fire protection works @ 6 DLs/ha | DLs | 6 | 540 | 589 | 318323 |
| | 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 | 360 | 589 | 212215 |
| | Maintenance of camp hut, implements, ring/tube- well, upkeepment of plantation, signboard, documentation & upkeepment of records etc. | L.S. | | | | 23579 |
| | Supervision Cost | L.S. | | | | 72000 |
| | Contingency @ 15 % over previous year | L.S. | | | | 15295 |
| | <i>sub total</i> | | | | | 641413 |
| | Total ` = | | | | | 28988516 |

Over head cost @ 50% of Total CA Cost ` =

14494259

Grand Total ` =

43482775

IN WORDS

(RUPEES FOUR CRORES THIRTY FOUR LAKHS EIGHTY TWO THOUSAND SEVEN HUNDRED SEVENTY FIVE 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.

Technically approved
Subdit Rehla



[Signature]
23/3/18
Divisional Forest Officer
Hamren Forest Division
Divisional Forest Officer
Hamren Division, Hamren