

Full Title of the Project: Diversion of 0.891 ha of forest land for laying of Water pipe line alongwith Loharu canal from Raw water pumping station to Nimar Badesara water works in Sub Division, Badhara under Forest Division & Distt. Charkhi Dadri.

File No. : FCA/S/ FP/HR/Water/156175/2022,

Date of Submission: 03.06.2022.

CHECK LIST SERIAL NUMBER:-18

"SCHEME FOR C.A."

Name of the Forest/Reach to be diverted -Forest land for laying of Water pipe line alongwith Loharu canal from Raw water pumping station to Nimar Badesara water works in Sub Division, Badhara under Forest Division & Distt. Charkhi Dadri.
Forest Area = 0.891 ha.

Details of degraded forest land/non-forest land where C.A. is to be carried out.

Division: **Ch. Dadri** District : **Ch. Dadri**

Area to be Afforested :- **1.868 ha.**

- a) Whether the site selected for Compensatory Afforestation is a Land bank (Yes or No): **No.**
- b) If the CA site is other than the land bank, reasons be given:-
In case of non-forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary :-
 - i) Soil type: **Good**
 - ii) Topography a. Hilly/Undulating/Plain: **Plain**
b. Slope:-Steep/Medium/Gentle: **Gentle**
 - iii) Whether the area is bearing any root stock of vegetation:- **No**

Plantation Model:-

Copy of the approved Compensatory Afforestation Scheme/Model showing component wise physical and financial break up is as under ;

| Norms of Tall plants under Compensatory Afforestation demanded from User Agency in FCA diversion proposals at a wage rate of Rs. 405.11/- per day (in Plain Areas) | | | | | |
|--|---|------|--------|------------------------|--------------|
| No. of Plants per Ha.= 1000 | | | | | |
| Sr No. | Item of Work | Unit | Qty. | 405.11/- Rate/Unit(Rs) | Amount (Rs.) |
| 1st Year Plantation | | | | | |
| 1 | Jungle Clearance | Ha. | 0.5 | 6076.65 | 3038.33 |
| 2 | Raising of Plants in nursery (30cmx45cm) | No. | 480 | 101.57 | 48753.60 |
| 3 | Raising of Plants in nursery (15cmx22cm) | No. | 720 | 13.38 | 9633.60 |
| 4 | Dag bailing and alignment | RKM | 3 | 283.58 | 850.74 |
| 5 | Digging of pits(400x0.6mx0.6mx0.6m) | M3 | 86.4 | 172.17 | 14875.49 |
| 6 | Digging of pits(400x0.45mx0.45mx0.45m) | M3 | 54.675 | 141.77 | 7751.27 |
| 7 | Loading and unloading of plants in Tractor/cart (30x45m) | No. | 440 | 3.06 | 1346.40 |
| 8 | Loading and unloading of plants in Tractor/cart (15cm x 22cm) | No. | 660 | 0.45 | 297.00 |
| 9 | Carriage of plants (30x45cm) | No. | 440 | 25.45 | 11198.00 |
| 10 | Carriage of plants (15cm x 22cm) | No. | 660 | 2.53 | 1669.80 |
| 11 | Plantation of plants including 10% | No. | 440 | 16.22 | 7136.80 |

| | | | | | |
|---------------------------------------|---|-----|-------|---------|------------------|
| 12 | replacement (30x45m) Plantation of plants including 10% replacement (15cm x 22cm) | No. | 660 | 6.09 | 4019.40 |
| 13 | Application of fertilizer (one time DAP + one time Urea) | No. | 2000 | 0.8 | 1600.00 |
| 14 | Irrigation five times | No. | 5000 | 6.09 | 30450.00 |
| 15 | First Weeding & Hoeing (30x45m) | No. | 400 | 8.08 | 3232.00 |
| 16 | First Weeding & Hoeing (15cm x 22cm) | No. | 600 | 6.09 | 3654.00 |
| 17 | Subsequent weeding and hoeing two times (30x45m) | No. | 800 | 6.09 | 4872.00 |
| 18 | Subsequent weeding and hoeing two times (15cm x 22cm) | No. | 1200 | 4.05 | 4860.00 |
| 19 | Cost of wages of protection watcher (one protection watcher for six months for plantation area of 10 ha.) | LS | | | 7292 |
| 20 | Miscellaneous Expenditure(Urea Dap, tools, etc.) | | | | 1000 |
| | Total | | | | 167530.43 |
| | Added EPF @13% | | | | |
| | Added ESI@3.25% | | | | 13611.85 |
| | Of wages component 50% of the total | | | | 11727.13 |
| | Added Contractor Profit@7% total | | | | 192869.40 |
| | Net Total | | | | |
| 2nd Year Plantation | | | | | |
| 1 | Cleaning of weed/bushes between plantation | Ha. | 0.5 | 1908.14 | 954.07 |
| 2 | Raising of Plants in nursery (30cmx45cm) | No. | 96 | 101.57 | 9750.72 |
| 3 | Raising of Plants in nursery (15cmx22cm) | No. | 144 | 13.38 | 1926.72 |
| 4 | Re-opening of pits 80x0.6mx0.6mx0.6m | M3 | 17.28 | 81.03 | 1400.20 |
| 5 | Re-opening of pits 120x0.45mx0.45mx0.45m | M3 | 10.93 | 81.03 | 885.66 |
| 6 | Loading and unloading of plants (30x45m) | No. | 88 | 3.06 | 569.28 |
| 7 | Loading and unloading of plants (15cmx22cm) | No. | 132 | 0.45 | 59.40 |
| 8 | Carriage of plants (30x45cm) | No. | 88 | 25.45 | 2239.60 |
| 9 | Carriage of plants (15cm x 22cm) | No. | 132 | 2.53 | 333.96 |
| 10 | Planting of (30x45m) | No. | 88 | 16.22 | 1427.36 |
| 11 | Planting of plants (15cm x 22cm) | No. | 132 | 6.09 | 803.88 |
| 12 | Irrigation four times by hired tractor | No. | 4000 | 6.09 | 24360.00 |
| 13 | Weeding & Hoeing Three times(30x45m) | No. | 1200 | 6.09 | 7308.00 |
| 14 | Weeding & Hoeing Three times (15cm x 22cm) | No. | 1800 | 4.05 | 7290 |
| 15 | Miscellaneous Expenditure | LS | | | 1000 |
| 16 | Cost of wages of protection watcher (one protection watcher for six months for plantation area of 10 ha.) | | | | 7292 |
| | Total | | | | 67300.85 |
| | Added EPF @13% | | | | |
| | Added ESI@3.25% | | | | 5468.19 |
| | Of wages component 50% of the total | | | | 4711.06 |
| | Added Contractor Profit@7% total | | | | 77480.10 |
| | Net Total | | | | |
| 3rd Year Plantation | | | | | |

| | | | | | |
|---------------------------------------|---|-----|--------|---------|-----------------|
| 1 | Cleaning of weed/bushes between plantation | Ha. | 0.5 | 1908.14 | 954.07 |
| 2 | Raising of Plants in nursery (30cmx45cm) | No. | 48 | 101.57 | 4875.36 |
| 3 | Raising of Plants in nursery (15cmx22cm) | No. | 72 | 13.38 | 963.36 |
| 4 | Re-opening of pits 80x0.6mx0.6mx0.6m | M3 | 3.645 | 81.03 | 295.35 |
| 5 | Re-opening of pits 120x0.45mx0.45mx0.45m | M3 | 5.4675 | 81.03 | 443.03 |
| 6 | Loading and unloading of plants (30x45m) | No. | 44 | 3.06 | 134.64 |
| 7 | Loading and unloading of plants (15cmx22cm) | No. | 66 | 0.45 | 29.70 |
| 8 | Carriage of plants (30x45cm) | No. | 44 | 25.44 | 1119.36 |
| 9 | Carriage of plants (15cm x 22cm) | No. | 66 | 2.53 | 166.98 |
| 10 | Planting of (30x45m) | No. | 44 | 16.22 | 713.68 |
| 11 | Planting of plants (15cm x 22cm) | No. | 66 | 6.09 | 401.94 |
| 12 | Irrigation Two times | No. | 2000 | 6.09 | 12180.00 |
| 13 | Weeding & Hoeing (30x45m) | No. | 400 | 6.09 | 2436.00 |
| 14 | Weeding & Hoeing (15cm x 22cm) | No. | 600 | 4.05 | 2430.00 |
| 15 | Miscellaneous Expenditure | LS | | | 1000 |
| 16 | Cost of wages of protection watcher (one protection watcher for six months for plantation area of 10 ha.) | | | | 3646 |
| | Total | | | | 31789.48 |
| | Added EPF @13% | | | | |
| | Added ESI@3.25% | | | | |
| | Of wages component 50% of the total | | | | 2582.89 |
| | Added Contractor Profit@7% total | | | | 2225.26 |
| | Net Total | | | | 36597.63 |
| 4th Year Plantation | | | | | |
| 1 | Cost of wages of protection watcher (one protection watcher for six months for plantation area of 10 ha.) | | | | 3646 |
| 2 | Cleaning, pruning, spacing and thinning | LS | | 0 | 5000 |
| 3 | Miscellaneous Expenditure | LS | | | 2500 |
| | Total | | | | 11146 |
| | Added EPF @13% | | | | |
| | Added ESI@3.25% | | | | |
| | Of wages component 50% of the total | | | | 905.61 |
| | Added Contractor Profit@7% total | | | | 780.22 |
| | Net Total | | | | 12831.83 |
| 5th Year Plantation | | | | | |
| 1 | Cost of wages of protection watcher (one protection watcher for six months for plantation area of 10 ha.) | | | | 3646 |
| 2 | Cleaning, pruning, spacing and thinning | LS | | 0 | 5000 |
| 3 | Miscellaneous Expenditure | LS | | | 2500 |
| | Total | | | | 11146 |
| | Added EPF @13% | | | | |
| | Added ESI@3.25% | | | | |
| | Of wages component 50% of the total | | | | 905.61 |
| | Added Contractor Profit@7% total | | | | 780.22 |
| | Net Total | | | | 12831.83 |
| 6th Year Plantation | | | | | |
| 1 | Cost of wages of protection watcher (one | | | | 3646 |

| | | | | | |
|--|---|----|--|---|-----------------|
| | protection watcher for six months for plantation area of 10 ha.) | | | | |
| 2 | Cleaning, pruning, spacing and thinning | LS | | 0 | 5000 |
| 3 | Miscellaneous Expenditure | | | | 2500 |
| | Total | | | | 11146 |
| | Added EPF @13% | | | | |
| | Added ESI@3.25% | | | | |
| | Of wages component 50% of the total | | | | 905.61 |
| | Added Contractor Profit@7% total | | | | 780.22 |
| | Net Total | | | | 12831.83 |
| 7th Year Plantation | | | | | |
| 1 | Cost of wages of protection watcher (one protection watcher for six months for plantation area of 10 ha.) | | | | 3646 |
| 2 | Cleaning, pruning, spacing and thinning | LS | | 0 | 5000 |
| 3 | Miscellaneous Expenditure | | | | 2500 |
| | Total | | | | 11146 |
| | Added EPF @13% | | | | |
| | Added ESI@3.25% | | | | |
| | Of wages component 50% of the total | | | | 905.61 |
| | Added Contractor Profit@7% total | | | | 780.22 |
| | Net Total | | | | 12831.83 |
| 8th Year Plantation | | | | | |
| 1 | Cost of wages of protection watcher (one protection watcher for six months for plantation area of 10 ha.) | | | | 3646 |
| 2 | Cleaning, pruning, spacing and thinning | LS | | 0 | 5000 |
| 3 | Miscellaneous Expenditure | | | | 2500 |
| | Total | | | | 11146 |
| | Added EPF @13% | | | | |
| | Added ESI@3.25% | | | | |
| | Of wages component 50% of the total | | | | 905.61 |
| | Added Contractor Profit@7% total | | | | 780.22 |
| | Net Total | | | | 12831.83 |
| 9th Year Plantation | | | | | |
| 1 | Cost of wages of protection watcher (one protection watcher for six months for plantation area of 10 ha.) | | | | 3646 |
| 2 | Cleaning, pruning, spacing and thinning | LS | | 0 | 5000 |
| 3 | Miscellaneous Expenditure | | | | 2500 |
| | Total | | | | 11146 |
| | Added EPF @13% | | | | |
| | Added ESI@3.25% | | | | |
| | Of wages component 50% of the total | | | | 905.61 |
| | Added Contractor Profit@7% total | | | | 780.22 |
| | Net Total | | | | 12831.83 |
| 10th Year Plantation | | | | | |
| 1 | Cost of wages of protection watcher (one protection watcher for six months for plantation area of 10 ha.) | | | | 3646 |
| 2 | Cleaning, pruning, spacing and thinning | LS | | 0 | 5000 |
| 3 | Miscellaneous Expenditure | | | | 2500 |
| | Total | | | | 11146 |

| | | | |
|-------------------------------------|--|--|-----------------|
| Added EPF @13% | | | |
| Added ESI@3.25% | | | 905.61 |
| Of wages component 50% of the total | | | 780.22 |
| Added Contractor Profit@7% total | | | 12831.83 |
| Net Total | | | |

Abstract of Cost Norms

| Year of plantation | Cost (in Rs) | Cost per plant |
|------------------------|------------------|----------------|
| First Year Plantation | 192869.40 | 192.87 |
| Second Year Plantation | 77480.10 | 77.48 |
| Third Year Plantation | 36597.63 | 36.60 |
| Fourth Year Plantation | 12831.83 | 12.83 |
| Five Year Plantation | 12831.83 | 12.83 |
| Six Year Plantation | 12831.83 | 12.83 |
| Seven Year Plantation | 12831.83 | 12.83 |
| Eight Year Plantation | 12831.83 | 12.83 |
| Nine Year Plantation | 12831.83 | 12.83 |
| Ten Year Plantation | 12831.83 | 12.83 |
| Total | 396769.97 | 396.77 |

Area to be Diverted : 0.891 ha.

No. of Trees to be felled : 0

No. of Plants to be damaged : 43.

Area to be planted under normal CA : $0.891 \times 2 = 1.782$ Ha. (Double the area to be diverted)

Plants to be Planted under normal CA : 1782 nos. (@ 1000 plants per ha.)

Additional C.A. : 0.086 ha. in lieu of plants to be damaged (Double the plants to be Damaged/1000) = 86 Plants

Area to planted under Addl. CA : 0.086 (@ 1000 plants per ha.)

Total No. of plants to be planted (CA) 1782+86 = 1868

Total Area to be planted (CA+Addl.CA) : 1.868 ha. (@ 1000 plants per ha.)

Name of CA Site : Norangabas R.F.

| S.No | DESCRIPTION | | RATE | TOTAL AMOUNT (Rs.) |
|------|--|---------------|----------------------|--------------------|
| A | Compensatory afforestation Charges | No. of Plants | | |
| | (1) 1 st Year cost of afforestation | 1782 | Rs. 192.87 Per Plant | 343694.34 |
| | (2) 2 nd Year maintenance | | Rs. 77.48 Per Plant | 138069.36 |
| | (3) 3 rd Year maintenance | | Rs. 36.60 Per Plant | 65221.2 |
| | (4) 4 th Year maintenance | | Rs. 12.83 Per Plant | 22863.06 |
| | (5) 5 th Year maintenance | | Rs. 12.83 Per Plant | 22863.06 |
| | (6) 6 th Year maintenance | | Rs. 12.83 Per Plant | 22863.06 |
| | (7) 7 th Year maintenance | | Rs. 12.83 Per Plant | 22863.06 |
| | (8) 8 th Year maintenance | | Rs. 12.83 Per Plant | 22863.06 |
| | (9) 9 th Year maintenance | | Rs. 12.83 Per Plant | 22863.06 |
| | (10) 10 th Year maintenance | | Rs. 12.83 Per Plant | 22863.06 |
| | Total C.A. Charges | | | 707026.32 |
| B | Additional Compensatory Afforestation Charges | | | |
| | (1) 1 st Year cost of afforestation | 86 | Rs. 192.87 Per Plant | 16586.82 |
| | (2) 2 nd Year maintenance | | Rs. 77.48 Per Plant | 6663.28 |
| | (3) 3 rd Year maintenance | | Rs. 36.60 Per Plant | 3147.6 |
| | (4) 4 th Year maintenance | | Rs. 12.83 Per Plant | 1103.38 |


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|---|--|------------------------------|---------------------|-----------------|
| | (5) 5 th Year maintenance | | Rs. 12.83 Per Plant | 1103.38 |
| | (6) 6 th Year maintenance | | Rs. 12.83 Per Plant | 1103.38 |
| | (7) 7 th Year maintenance | | Rs. 12.83 Per Plant | 1103.38 |
| | (8) 8 th Year maintenance | | Rs. 12.83 Per Plant | 1103.38 |
| | (9) 9 th Year maintenance | | Rs. 12.83 Per Plant | 1103.38 |
| | (10) 10 th Year maintenance | | Rs. 12.83 Per Plant | 1103.38 |
| | Sub Total (B) Total Addl. C.A. Charges | | | 34131.36 |
| C | Penal C.A. | | | 0 |
| | Total | | | 741158 |
| D | Catchment Area Treatment | | | |
| | Supervisory / Overhead / Miscellaneous Charges | 10% on the CA charges | | 70703 |
| | Barbed wire fencing charge= 1.4 RKM | Rs.200000/- Per RKM | | 280000 |
| E | Safety Zone | | | 0 |
| F | Additional Charges | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | Sub Total (F) | | 0 | 0 |
| G | Felling charges 0m ³ | Rs.1400/- per m ³ | | 0 |
| H | Plantation damage charges = 0 Plants | Rs. 236/- per plant | | 0 |
| | GRAND TOTAL (A+B+C+D+E+F+G+H+I) to be deposited in CAMPA Fund | | | 1091861 |

2. **Technical details:-**
 Technical details of Compensatory Afforestation Scheme are as follows:-
 a) General Details:- Plantation will be done with 3 strand barbed wire.
 b) Spacement:- 4 × 2½ meter
 c) Species:-

- d) Plantation Method :- Plantation
 e) Soil and Moisture Conservation Works
 f) Protection (Fencing, Watch man, People's Participation etc.):
 g) Proposed Monitoring Mechanism:- (M&E),
 h) Any Other information:- Nil.

Date:

Place Ch. Dadri


Divisional Forest Officer
 Divisional Forest Officer,
CH DADRI FOREST DIVN
 Ch. Dadri Forest Division,
CH DADRI