

Diversion of 0.0256 hectare of Forest Land for shifting/raising of existing 220kv hT line at km.69+630 R/s at village Bachhuwan, Tehsil Balachaur, District Shahid Bhagat Singh Nagar which is interfering the development of 4-laning of Phagwara-Roopnagar section of NH-344A from km/0.000 to km. 80.820 in the state of Punjab on hybrid annuity mode under Forest Division, Nawanshahar at Garhshankar.

File No. : \_\_\_\_\_ Page.....

Date of Proposal:

**CHECK LIST SERIAL NUMBER :-16**

**“SCHEME FOR COMPENSATORY AFFORESTATION”**

Detailed scheme of 0.100 hectares land for compensatory Afforestation to be carried out in lieu of 0.0256 hectare of forest area to be diverted in Diversion of 0.0256 hectare of Forest Land for shifting/raising of existing 220kv hT line at km.69+630 R/s at village Bachhuwan, Tehsil Balachaur, District Shahid Bhagat Singh Nagar which is interfering the development of 4-laning of Phagwara-Roopnagar section of NH-344A from km/0.000 to km. 80.820 in the state of Punjab on hybrid annuity mode under Forest Division, Nawanshahar at Garhshankar.

**1 Details of degraded forest land/non-forest land: -**

|                          |   |  |
|--------------------------|---|--|
| District                 | : | Shaheed Bhagat Singh Nagar                 |
| Village                  | : | Raipur                                     |
| Range                    | : | Kathgarh                                   |
| Tehsil                   | : | Balachaur                                  |
| Name of Forest Division: | : | Nawanshahar Forest Division at Garhshankar |
| Compartment/Survey No.:  | : | 413.                                       |
| Area to be afforested    | : | 0.100.                                     |

**2 Description of Area: -**

- I. Whether the site selected for Compensatory Afforestation is a land bank or not :**Yes**
- II. If the CA site is other than the land bank, reasons be given: - **N.A.**
- III. In case of non-forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary: - **N.A.**
- IV. Soil type: - Heavy soil / **Medium Soil.**
- V. Topography
  - a. Hilly/Undulating/**Plan**
  - b. Slope: - Steep/Medium/**Gentle**
- VI. Whether the area is bearing any root stock of vegetation: - **Yes**

**3 Plantation Model: -**

Copy of approved Compensatory Afforestation Scheme/Model showing component wise physical and financial break up to be enclosed. **Enclosed.**

  
**Satinder Singh PFS**  
 Divisional Forest Officer  
 Nawanshahr Forest Division  
 at Garhshankar

Diversion of 0.0256 hectare of Forest Land for shifting/raising of existing 220kv hT line at km.69+630 R/s at village Bachhuwan, Tehsil Balachaur, District Shahid Bhagat Singh Nagar which is interfering the development of 4-laning of Phagwara-Roopnagar section of NH-344A from km/0.000 to km. 80.820 in the state of Punjab on hybrid annuity mode under Forest Division, Nawanshahar at Garhshankar.


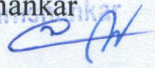
File No. : \_\_\_\_\_ Page.....

Date of Proposal:

3. Technical details: -

Technical details of Compensatory Afforestation Scheme are as follows: -

- a) General Details
- b) Spacing
- c) Species
- d) Plantation Method
- e) Soil and Moisture Conservation Works.
- f) Protection (Fencing Watch man, People's Participation etc.)
- g) Proposed Monitoring Mechanism.
- h) Any Other information


  
**Satinder Singh PFS**  
 Divisional Forest Officer  
 Nawanshahar Forest Division  
 Nawanshahar at Garhshankar  


Diversion of 0.0256 hectare of Forest Land for shifting/raising of existing 220kv hT line at km.69+630 R/s at village Bachhuan, Tehsil Balachaur, District Shahid Bhagat Singh Nagar which is interfering the development of 4-laning of Phagwara-Roopnagar section of NH-344A from km/0.000 to km. 80.820 in the state of Punjab on hybrid annuity mode under Forest Division, Nawanshahr at Garhshankar.

#### 4. Schedule of Plantation Programme

Detail of year wise Breakup of requirement of funds as under: -

| Year                   | CA Area (in ha.) | Rate/ha.         | Total Amount    |
|------------------------|------------------|------------------|-----------------|
| 0 <sup>th</sup> year   | 0.10             | 186465.05        | 18646.50        |
| 1 <sup>st</sup> year   | 0.10             | 73045.07         | 7304.51         |
| 2 <sup>nd</sup> year   | 0.10             | 45880.36         | 4588.04         |
| 3 <sup>rd</sup> year   | 0.10             | 42683.63         | 4268.36         |
| 4 <sup>th</sup> year   | 0.10             | 39565.60         | 3956.56         |
| 5 <sup>th</sup> year   | 0.10             | 5969.60          | 596.96          |
| 6 <sup>th</sup> year   | 0.10             | 5969.00          | 596.90          |
| 7 <sup>th</sup> year   | 0.10             | 5969.60          | 596.96          |
| 8 <sup>th</sup> year   | 0.10             | 5969.60          | 596.96          |
| 9 <sup>th</sup> year   | 0.10             | 5969.60          | 596.96          |
| 10 <sup>th</sup> year  | 0.10             | 5969.60          | 596.96          |
| <b>Total:</b>          |                  | <b>423456.70</b> | <b>42345.67</b> |
| Supervision charges    |                  | 21172.83         | 2117.36         |
| Wage Enhancement @ 10% |                  | 42345.67         | 4234.57         |
| <b>G. Total:</b>       |                  | <b>486975.20</b> | <b>48697.60</b> |

  
**Satinder Singh PFS**  
 Divisional Forest Officer  
 Nawanshahr Forest Division  
 at Garhshankar



**Plantation Model for Standard Plantation under Compensatory Afforestation  
Plants Per Hectare: 1000 Nos.**

| Sr. No.                   | Name of Work   | Unit            | Qty              | Wage Rate:         | 328/-            |
|---------------------------|--|-----------------|------------------|--------------------|------------------|
|                           |  |                 |                  | Unit Cost (In Rs.) | Amount           |
|                           | <b>Nursery</b>   |                 |                  |                    |                  |
|                           | Nursery cost of raising plants                                       | 1100            | 1100             | 20.00              | 22000.00         |
| <b>A</b>                  | <b>Soil Work</b>   |                 |                  |                    |                  |
| 1                         | Site/Jungle Clearance (25%)  | Ha.             | 0.5              | 5367.22            | 2683.61          |
| 2                         | Alignment & Dagbailing   | Ha.             | 1                | 984.00             | 984.00           |
| 3                         | Earth Work-<br>(a) Digging of Pits 1000x 0.5m x0.5m x0.4m            | 1M <sup>3</sup> | 100              | 101.38             | 10138.00         |
| 4                         | Kana Stubbing 25%  | Ha.             | 0.25             | 26836.00           | 6709.00          |
| <b>B</b>                  | <b>Plantation Work</b>   |                 |                  |                    |                  |
| 1                         | Refilling of Pits 1000x0.5mx0.5mx0.3                                 | 100 cum         | 75               | 2747               | 2060.25          |
| 2                         | Loading & Unloading of Plants (1000+10% Wastage=1100)                | 100 No.         | 1100             | 550                | 6050.00          |
| 3                         | Carriage of Plants (1000+10% Wastage=1100 avg. distance upto 10 km.) | 100 No.         | 1100             | 196.80             | 2164.80          |
| 4                         | i) Carriage from site to site  | 100 No.         | 1000             | 131.2              | 1312.00          |
|                           | ii) Planting of Plants (1000 No. including 10% replacement)          | 100 No.         | 1000             | 984                | 9840.00          |
| 5                         | Spot Irrigation (1000 Plants)  | 100 No.         | 1000             | 205                | 2050.00          |
| 6                         | Application of Insecticide (2 times)                                 | 100 No.         | 1000             | 41                 | 410.00           |
| 7                         | Application of Fertilizers (2 times)                                 | 100 No.         | 1000             | 41                 | 410.00           |
| 8                         | Weeding & Hoeing 3 times   | 100 No.         | 3000             | 357.52             | 10725.60         |
| 9                         | Hand Watering (12 Times)   | 100 No.         | 12000            | 205                | 24600.00         |
| 10                        | Replanting of Plants 10%   | 100 No.         | 100              | 579.11             | 579.11           |
| 11                        | Rejungle Clearance (2 times)   | Per Ha.         | 1                | 2378               | 2378.00          |
| 12                        | Covering (25% plants) of plants                                      | 100 No.         | 250              | 295.2              | 738.00           |
| 13                        | Uncovering of plants   | 100 No.         | 250              | 32.8               | 82.00            |
| 14                        | Restubbing of Kana (1 time)  | Ha.             | 0.25             | 26836.3            | 6709.08          |
| 15                        | Laying out & fixing of Barbed Wire                                   | L/s             |                  |                    | 7872.00          |
| 16                        | Watch & Ward for every 10 Ha. (7 months)                             | Man year        | 1Man<br>7 Month  | 8528               | 5969.60          |
| 17                        | Material   |                 |                  |                    |                  |
|                           | i) Insecticides/Fertilizers  | L/s             |                  |                    | 5000.00          |
|                           | ii) POL  | L/s             |                  |                    | 5000.00          |
|                           | iii) Barbed Wire   | L/s             |                  |                    | 50000.00         |
|                           |  |                 | <b>Sub Total</b> |                    | <b>186465.05</b> |
| <b>Maintenance I Year</b> |  |                 |                  |                    |                  |
| 1                         | Cost of raising plants for 30% replacement                           | 1 No.           | 300              | 20                 | 6000.00          |
| 2                         | Reopening of Pits 300x0.50x0.50x0.30                                 | 1 m3            | 21.6             | 59.63              | 1341.68          |
|                           |  |                 | <b>22.5</b>      | <b>59.63</b>       |                  |
| 3                         | Refilling of pits with earth in other soils 300 x 0.50 x 0.50 x 0.30 | 1 m3            | 21.6             | 27.47              | 618.08           |
|                           |  |                 | <b>22.5</b>      | <b>27.47</b>       |                  |
| 4                         | Loading & Unloading of Plants  | 1 No.           | 300              | 2.46               | 738.00           |
| 5                         | Carriage of Plants (300+10% Wastage=330 avg. distance upto 10 km.)   | 100 No.         | 1                | 196.2              | 196.20           |
| 6                         | Spreading of plants pit to pit                                       | 100 No.         | 165              | 131.2              | 216.48           |
| 7                         | Re-planting Tall Plants  | 100 No.         | 165              | 329.08             | 542.98           |
| 8                         | Spot Irrigation  | 100 No.         | 165              | 205                | 338.25           |

Satinder Singh PFS  
Divisional Forest Officer  
Nawanshahr Forest Division  
at Garhshankar

|    |   |          |                  |        |                 |
|----|---|----------|------------------|--------|-----------------|
| 9  | Weeding & Hoeing (thrice)                 | 100 No.  | 3000             | 357.52 | 10725.60        |
| 10 | App. of Insecticide (two times)           | 100 No.  | 1000             | 41     | 410.00          |
| 11 | App. of Fertilizers (two times)           | 100 No.  | 1000             | 41     | 410.00          |
| 12 | Hand watering (6 Times)                   | 100 No.  | 6000             | 357.52 | 21451.20        |
| 13 | Rejungle Clearance (2 times)              | Ha.      | 1                | 2378   | 2378.00         |
| 14 | Restubbing of Kana                        | Ha.      | 0.25             | 26836  | 6709.00         |
| 15 | Watch & Ward for every 10 Ha. (10 months) | Man year | 1/10 Man yr.     | 8528   | 5969.60         |
| 16 | Repair of Barbed Wire                     | L/s      |                  |        | 5000.00         |
| 17 | POL & Machinery                           | L/s      |                  |        | 5000.00         |
| 18 | Material and supply                       | L/s      |                  |        | 5000.00         |
|    |   |          | <b>Sub Total</b> |        | <b>73045.07</b> |

**Maintenance II Year**

|    |   |          |                  |        |                 |
|----|---|----------|------------------|--------|-----------------|
| 1  | Cost of raising plants for 15% replacement                          | 1 No.    | 150              | 20     | 3000.00         |
| 2  | Reopening of Pits 75 x 0.60 x 0.60 x 0.40                           | 1 m3     | 21.6             | 59.63  | 644.00          |
|    |   |          | 10.8             | 59.63  |                 |
| 3  | Refilling of pits with earth in other soils 75 x 0.60 x 0.60 x 0.40 | 1 m3     | 21.6             | 27.47  | 296.68          |
|    |   |          | 10.8             | 27.47  |                 |
| 4  | Loading & Unloading of Plants                                       | 1 No.    | 75               | 2.46   | 184.50          |
| 5  | Carriage of Plants Wastage = 75 avg. distance upto 10 km.)          | 500 No.  | 1                | 196.2  | 196.20          |
| 6  | Spreading of plants pit to pit                                      | 100 No.  | 75               | 131.2  | 98.40           |
| 7  | Re-planting to plants   | 100 No.  | 75               | 229.09 | 171.82          |
| 8  | Spot Irrigation   | 100 No.  | 75               | 205    | 153.75          |
| 9  | Weeding & Hoeing (twice)  | 100 No.  | 2000             | 357.52 | 7150.40         |
| 10 | Hand Watering 5 Times   | 100 No.  | 5000             | 205    | 10250.00        |
| 11 | Rejungle Clearance ( 2 times)                                       | Ha.      | 1                | 2378   | 2378.00         |
| 12 | Pruning to plants   | 100 No.  | 100              | 387.61 | 387.61          |
| 13 | Watch & Ward for every 10 Ha.                                       | Man year | 1/10 Man yr.     | 8528   | 5969.00         |
| 14 | Repair of Barbed Wire   | L/s      |                  |        | 5000.00         |
| 15 | POL & Machinery   | L/s      |                  |        | 5000.00         |
| 16 | Material and supply   | L/s      |                  |        | 5000.00         |
|    |   |          | <b>Sub Total</b> |        | <b>45880.36</b> |

**Maintenance III Year**

|    |   |         |      |        |          |
|----|---|---------|------|--------|----------|
| 1  | Cost of raising plants for 10% replacement                          | 1 No.   | 100  | 20     | 2000.00  |
| 2  | Reopening of Pits 50 x 0.60 x 0.60 x 0.40                           | 1 m3    | 10   | 59.63  | 429.34   |
|    |   |         | 7.2  | 59.63  |          |
| 3  | Refilling of pits with earth in other soils 50 x 0.60 x 0.60 x 0.40 | 1 m3    | 7.5  | 27.47  | 197.78   |
|    |   |         | 7.2  | 27.47  |          |
| 4  | Loading & Unloading of Plants                                       | 1 No.   | 100  | 2.46   | 246.00   |
| 5  | Carriage of Plants 50 avg. distance upto 10 km.)                    | 100 No. | 100  | 1.0    | 100.00   |
| 6  | Spreading of plants pit to pit                                      | 100 No. | 100  | 131.2  | 131.20   |
| 7  | Re-planting to plants   | 100 No. | 100  | 229.09 | 229.09   |
| 8  | Spot Irrigation   | 100 No. | 100  | 205    | 205.00   |
| 9  | Weeding & Hoeing (twice)  | 100 No. | 2000 | 357.52 | 7150.40  |
| 10 | Hand Watering (5 times)   | 100 No. | 5000 | 205    | 10250.00 |
| 11 | Pruning to plants 20%   | 100 No. | 200  | 387.61 | 775.22   |

Satinder Singh  
 Divisional Forest Officer  
 Nawanshahr Forest Division  
 at Garhshankar

|                              |  |          |                  |        |                  |
|------------------------------|--|----------|------------------|--------|------------------|
| 12                           | Watch & Ward for every 10 Ha.  | Man year | 1/10 Man yr.     | 8528   | 5969.60          |
| 13                           | Repair of Barbed Wire  | L/s      |                  |        | 5000.00          |
| 14                           | POL & Machinery  | L/s      |                  |        | 5000.00          |
| 15                           | Material and supply  | L/s      |                  |        | 5000.00          |
|                              |  |          | <b>Sub Total</b> |        | <b>42683.63</b>  |
| <b>Maintenance IV Year</b>   |  |          |                  |        |                  |
| 1                            | Cost of raising plants for 5% replacement                              | 1 No.    | 50               | 20     | 1000.00          |
| 2                            | Reopening of Pits 50 x 0.60 x 0.60 x 0.40                              | 1 m3     | 5                | 59.63  | 429.34           |
|                              |  |          | 7.2              | 59.63  |                  |
| 3                            | Refilling of pits with earth in other soils<br>50 x 0.60 x 0.60 x 0.40 | 1 m3     | 3.75             | 27.47  | 197.78           |
|                              |  |          | 7.2              | 27.47  |                  |
| 4                            | Loading & Unloading of Plants  | 1 No.    | 50               | 2.46   | 123.00           |
| 5                            | Carriage of Plants = 25 avg. distance upto<br>10 km.)                  | 500 No.  | 50               | 1.0    | 50.00            |
| 6                            | Spreading of plants pit to pit   | 100 No.  | 50               | 131.2  | 65.60            |
| 7                            | Re-planting to plants  | 100 No.  | 50               | 229.09 | 114.55           |
| 8                            | Spot Irrigation  | 100 No.  | 50               | 205    | 102.50           |
| 9                            | Weeding & Hoeing (twice)   | 100 No.  | 2000             | 357.52 | 7150.40          |
| 10                           | Hand Watering (4 Times)  | 100 No.  | 4000             | 205    | 8200.00          |
| 11                           | Pruning to plants 30%  | 100 No.  | 300              | 387.61 | 1162.83          |
| 12                           | Watch & Ward for every 10 Ha.  | Man year | 1/10 Man yr.     | 8528   | 5969.60          |
| 13                           | Repair of Barbed Wire  | L/s      |                  |        | 5000.00          |
| 14                           | POL & Machinery  | L/s      |                  |        | 5000.00          |
| 15                           | Material and supply  | L/s      |                  |        | 5000.00          |
|                              |  |          | <b>Sub Total</b> |        | <b>39565.60</b>  |
| <b>Maintenance V Year</b>    |  |          |                  |        |                  |
| 1                            | Watch & Ward for every 10 Ha. (10<br>Months)                           | Man year | 1/10 Man yr.     | 8528   | 5969.60          |
|                              |  |          | <b>Sub Total</b> |        | <b>5969.60</b>   |
| <b>Maintenance VI Year</b>   |  |          |                  |        |                  |
| 1                            | Watch & Ward for every 10 Ha. (10<br>Months)                           | Man year | 1/10 Man yr.     | 8528   | 5969.00          |
|                              |  |          | <b>Sub Total</b> |        | <b>5969.00</b>   |
| <b>Maintenance VII Year</b>  |  |          |                  |        |                  |
| 1                            | Watch & Ward for every 10 Ha. (10<br>Months)                           | Man year | 1/10 Man yr.     | 8528   | 5969.60          |
|                              |  |          | <b>Sub Total</b> |        | <b>5969.60</b>   |
| <b>Maintenance VIII Year</b> |  |          |                  |        |                  |
| 1                            | Watch & Ward for every 10 Ha. (10<br>Months)                           | Man year | 1/10 Man yr.     | 8528   | 5969.60          |
|                              |  |          | <b>Sub Total</b> |        | <b>5969.60</b>   |
| <b>Maintenance IX Year</b>   |  |          |                  |        |                  |
| 1                            | Watch & Ward for every 10 Ha. (10<br>Months)                           | Man year | 1/10 Man yr.     | 8528   | 5969.60          |
|                              |  |          | <b>Sub Total</b> |        | <b>5969.60</b>   |
| <b>Maintenance X Year</b>    |  |          |                  |        |                  |
| 1                            | W & Ward for every 10 Ha. (10 Months)                                  | Man year | 1/10 Manyr.      | 8528   | 5969.60          |
|                              |  |          | <b>Sub Total</b> |        | <b>5969.60</b>   |
|                              |  |          | <b>Total</b>     |        | <b>423456.70</b> |
|                              | <b>Over Head expenses 5%</b>   |          |                  |        | <b>21172.83</b>  |
|                              | <b>Wage Enhancement @ 10%</b>  |          |                  |        | <b>42345.67</b>  |
|                              |  |          | <b>G.Total</b>   |        | <b>486975.20</b> |
|                              |  |          | <b>Or Say</b>    |        | <b>486976</b>    |

Satinder Singh PFS  
 Divisional Forest Officer  
 Nawanshahr Forest Division  
 at Garhshankar

| <b>Summary of Costs</b>           |   |                 |
|-----------------------------------|---|-----------------|
| a)                                | <b>Cost of Plantation: -</b>  |                 |
| i)                                | Cost of Compensatory afforestation in 1 Hect. Area (1000 Plants) +  | 486976.00       |
| ii)                               | Cost of Compensatory afforestation for <b>0.10 ha.</b>  | <b>48697.60</b> |
| b)                                | Net present value of 0.014052 ha. as fixed by Govt. for open area forest diverted @<br>Rs 6,26,000/- per ha. X 0.0256 | <b>16025.60</b> |
| <b>Total Cost for Proposal: -</b> |   | <b>64723.20</b> |

Silvicultural operations can be changed as per site requirement after recording proper reasons by Divisional Forest Officer. Changes in operation will be done by remaining within the financial limits of cost model proposed.

**Divisional Forest Officer  
Nawanshahar at Garhshankar**