

No.Ft.48-66/2016 (FCA)
H.P. Forest Department.

Dated Shimla-1, the

From: Pr. CCF(HoFF), H.P. Shimla-1. To: All CCFs/CFs (T) & (WL)

Subject: **Compensatory Afforestation under Forest Conservation Act, 1980 in proposals involving less than 1 ha. diversion of Forest Land.**


Memo:

This is in continuation to this office letter even no. dated 09-12-2016 on the subject cited above.

2. Please find enclosed herewith **Compensatory Plantation Scheme along with Cost Models (both for Strip Plantation and Block Plantation mentioned in the scheme) duly approved by the Competent authority**, to be applied on the proposals involving Forest land less than 1 ha under FCA, 1980.
3. The scheme shall be applicable on the proposals under process under FCA, 1980 where Forest Land for diversion upto 1 ha is involved , CA is required to be raised and so far "In-Principle" approval is not accorded by the Competent authority and also in case of the fresh proposals under preparation.
4. This may please be brought into the notice of all the DFOs under your control to act as per approved Scheme and also to enclose the annexures mentioned in the scheme alongwith the proposals.
5. Further it may be ensured that the NPV, Charges of Compensatory levies and contingent charges shall be deposited by the User agency, in *ad-hoc* CAMPA Fund through *e-challan*. The Departmental Charges should be shown separately in the estimates of the plantation scheme. The Departmental charges and Cost of trees shall be deposited in the District treasury as per existing practice by the user agency.

This is for your kind information and necessary action.

Encl: a.a.


Nodal Officer-cum- CCF (FCA)
O/o Pr. CCF(HoFF), H.P. Shimla-1.

**COMPENSATORY PLANTATION SCHEME, IN CASE OF DIVERSION OF LAND UPTO
1 Ha UNDER FCA,1980**

1. **Compensatory Afforestation:** Compensatory Afforestation is one of the most important conditions stipulated by the Central Government while approving proposals for diversion of forest land for non-forest uses. It is essential that in all such proposals, a comprehensive scheme for compensatory Plantation is formulated and submitted to the Central Government.
2. **Compensatory Afforestation in diversion cases of less than 1 Ha:** Clause 3.2 (viii) of chapter 3 on "Compensatory Afforestation", of "Handbook of Forest (Conservation) Act, 1980 (With Amendments made in 1988) and Forest (Conservation) Rules, 2003 (With Amendments made in 2004) Guidelines & Clarifications" by Govt. of India, MoEF provide that *"No Compensatory Afforestation shall be insisted upon in respect of
(b) Proposals involving diversion of forest land upto one hectare. (However, in such cases, plantation of ten times the number of trees likely to be felled will have to be carried out by way of compensatory afforestation or any number of trees specified in the order)"*
3. **SITE SPECIFIC COMPENSATORY PLANTATION SCHEME** : Keeping in view the above clause, all cases of diversion of forest land under FCA, 1980 involving Forest land up to 1 Ha, in which so far, 'In-Principal' approval has not been accorded by Govt. of India/GoHP and the fresh cases to be submitted henceforth, shall follow this scheme which shall be called "Site Specific Compensatory Plantation Scheme".

3.1 SALIENT FEATURES OF THE SCHEME:

- (i) In every such case, involving Forest land diversion upto 1 Ha, **Compensatory Planting of 100 trees or Ten times the number of trees to be felled, whichever is more shall be carried out.**
- (ii) The planting under this scheme shall be done as **Block Plantation** (Planting to be done in a block identified duly fenced in the **Degraded Forest Land**) or **Strip Plantation** (along the sides of old or newly created roads, where planting with tree guards can be done). The Block Plantation shall be carried out with a 40% mix of fruit trees.
- (iii) Plantation to be done against each proposal **in terms of number of plants and not in terms of area.**

- (iv) **Plantation of TALL PLANTS only shall be done.** For this purpose the DFO concerned shall grow sufficient number of Tall plants of the desired species, in the Departmental Nursery.
- (v) Pit size of 90X90X90 cm shall be dug for planting Tall plants.
- (vi) The species planted should be those of forest tree species available in the adjoining area and fruit tree species available in the area.
- (vii) The **Site specific estimates at the prevalent rates** shall be developed for 5 Ha or more block plantation with 500 tall plants per ha or in Strip plantation on one side of the road @ 200 plants per km and both sides of the road @ 400 plants per km and **shall be enclosed as annexure/additional item** with each proposal.
- (viii) **Based on the cost per plant** derived from estimate so developed for, Site Specific Compensatory Plantation (Block or Strip Plantation), **the User Agency shall be charged** for Planting the specified number of plants.
- (ix) Maintenance of the plantation shall be carried out for 7 years.
- (x) Monitoring of such plantation shall be done by the State Forest Department.

3.2 **SCHEME OF PLANTATION:** In every such case, **Compensatory Planting** of 100 trees or Ten times the number of trees to be felled, whichever is more, shall be carried out as '**Block Plantation**' in the Degraded Forest Land with density between 0-40% or as '**Strip Plantation**' along the roads, based on the availability of the planting area near to the forest area proposed for diversion, to be decided by the Divisional Forest Officer.

Nursery grown Tall plants with height more than 1.5 m in case of broad leaved species and minimum three years age at nursery in case of conifer species (at the time of planting) shall be planted @ 500 plants per Ha in **Block Plantation**. (with spacing row to row 5 mtr and plant to plant 4 mtr) This shall help improve the density of the degraded Forest areas (UPF/PF/DPF/RF) on one hand and fulfill the conditions stipulated for diversion of forest land on the other hand.

In case of **Strip Plantation**, depending upon the availability of space, the tall plants shall be planted along both sides of the road, in two rows in a staggered manner @ 400

plants per km, with row to row distance 5 m and plant to plant distance 10 m, duly guarded by iron tree guards.

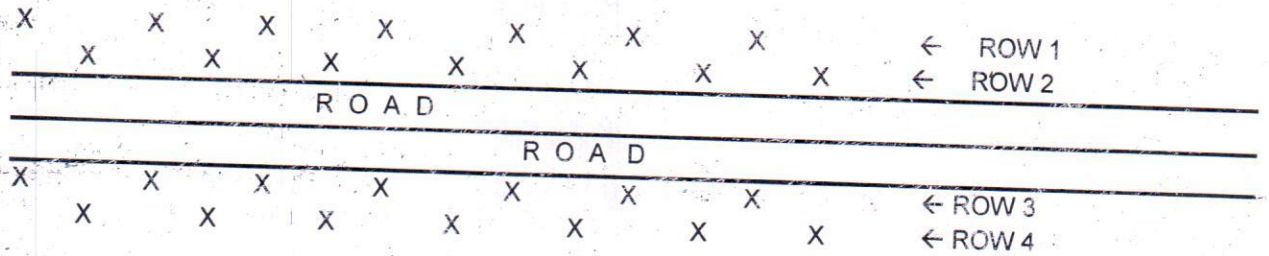


Figure: Strip Plantation along road; 'X' Denote position of plants with tree guards

3.2.1 **Area to be selected by DFO:** Prior to processing of any such proposal, the DFO concerned, would select a Land Bank with an area of 5 Ha. or more in Degraded (UPF/DPF/RF) forest areas where density is 0-40% in his/her Division. This area shall be fenced with RCC poles and subsequently planted with **500 tall plants per Ha.** (with 5x4 mtr spacing). As and when the entire area is nearing completion by way of planting @ 500 tall plants/Ha, another such area shall be selected for prospective proposals, subsequently fencing and planting in the same manner.

3.2.2 **Comprehensive site specific CA Scheme and estimate to be submitted by DFO on case to case basis:** Since depending on the degree of degradation and location of Degraded Forest areas and species to be planted, the Cost estimates are bound to vary, the Site Specific Compensatory Plantation Scheme shall be developed by the DFO which is to be approved technically and administratively by the Conservator/Chief Conservator Concerned, on case to case basis and submitted along with the proposal. On approval of the proposals for diversion of forest land by the competent authority, a specified number of tall plants only, shall be planted, maintaining 500 plants per Ha or 200 plants per km (if planted on one side of road) and 400 plants per km (if planted on both sides of the road). The area may not get fully stocked in one go, however with subsequent planting and more approvals of diversions pouring in, the area may get fully stocked.

The Site Specific Compensatory Plantation Scheme shall be submitted by the DFO alongwith all the proposals as an annexure including the following:-

- (i) The name of the Forest with area of the Land Bank identified for Block Plantation alongwith coordinates at all the corners or OR in case of Strip Plantation proposed, name of the Road with Km along which Strip Plantation is proposed alongwith coordinates along the road at every 50 mtrs, with details as to whether the strip Plantation shall be done on one side of the Road or both sides of the road.
- (ii) Copy of the Survey of India Topo-sheet on the 1:50,000 scale with the area for proposed plantation duly marked on the topo-sheet

- (iii) the Suitability Certificate for raising Compensatory Plantation.
- (iv) Estimate/ Total Cost Structure of various operations based on the prevalent rates, Year-wise phased forestry operations, details of species to be planted, Maintenance of the plants for 7 years, and derived cost per plant, as described in 3.2.3 below, duly approved by the CF/CCF concerned.
- (v) The undertaking from the User Agency to pay the cost of Compensatory Plantation as and when demanded, shall be obtained by the DFO and uploaded/enclosed with the proposal for the perusal by the Competent Authority.
- (vi) Also, an undertaking from the User Agency to the effect that the difference in cost due to escalation of rates between the payment made and the actual period of planting, shall be payable by the User Agency at a later date, shall be obtained by the DFO from the User Agency enclosing the same with the proposal.

3.2.3 Developing Cost Structure and arriving at Cost per plant to be charged from the User Agency for specified number of plants: Cost per plant to be charged from the User Agency shall be derived from the total cost involved in raising a 5 Ha or more Site Specific Block Plantation, with 500 tall plants per Ha and Strip Plantation @ 400 plants per Km (if on both sides) or 200 plants per km if one side of the road, for strip plantation as described in Section 3.2 above.

The Site specific estimate normally would include **cost of fencing the area, raising tall plants and maintenance for 7 years and other details** as under:

- (a) Cost of survey
- (b) Clearing the site of weeds
- (c) Cost of RCC Poles and painting
- (d) Cost of carriage of RCC Poles
- (e) Cost of fixing the poles
- (f) Cost of procurement of 4 strand B/wire
- (g) Cost of fixing B/wire
- (h) Cost of Steel Tree guard with two coats of paints, carriage upto site and fixing in concrete.
- (i) Pit digging 90x90x90 cm
- (j) Cost of Tall plants raised in Departmental Nurseries
- (k) Cost of Carriage of plants with earth ball in bags to the planting site
- (l) Addition of fertilizer to planting pits
- (m) Planting and Pit filling including soil from the nearby borrow pits
- (n) De-weeding and hoeing twice a year
- (o) Watering the plants during months of stress

- (p) Plantation Display Board [*depicting the Name of the Compensatory Plantation, Total area of plantation, Total number of Plants, Species planted and the Name of all the Proposals with corresponding number of plants planted against each, for which the land was diverted*]
- (q) Post planting care and Maintenance cost up to 7 years
- (r) Contingency 5% of all above
- (s) Departmental Charges 17.5% of all above (Departmental charges, shall be Payable in Distt. Treasury)

3.2.3.1 The COST ESTIMATE shall be developed as per cost model approved by PrCCF (HoFF), H.P. (Copy enclosed). The rates, prevalent at the time of preparing the estimate shall be applied, however the difference in cost due to escalation of rates between the payment made and the actual period of planting, shall be recoverable from the User Agency at a later date. An undertaking to this effect shall be obtained by the DFO from the User Agency enclosing the same with the proposal. The items not covered in the above said models may be drawn from the Rate Contract / Rates approved by the Forest Department/ Schedule of Rates applicable in the said Division/Circle.

4. **TO BE FUNDED BY USER AGENCY:** Such "Site specific Compensatory Plantation Scheme" shall be funded by the User Agency and the User Agency (UA) shall not be insisted to provide land for Compensatory Plantation in cases covered under this scheme. For arriving at cost per plant the estimate for **Strip Planting @200 plants/Km** (when planted on one side) and **@400 plants/km** (when planted on both sides) **AND for Block Plantation 500 plants per ha**, shall be developed for the intended site of plantation, which shall be duly approved by the concerned territorial Conservator/Chief Conservator of Forests. **Charges for raising a specified number of tall plants, on the basis of rate per plant derived from the cost structure of the site specific plantation model duly approved by the CF/CCF, shall be charged from the User Agency.**

4.1.1 **DEPOSIT OF NPV, CA ETC BY UA:** The DFO shall raise the bill, for specified number of plants to be raised against the CA as per the "Site Specific Compensatory Plantation Scheme" estimate approved by the concerned CF/CCF for raising the Block Plantation or Strip Plantation (as the case may be).

After obtaining the 'in-principle' approval, the User agency shall deposit the required amount into *ad-hoc* CAMPA fund, as and when directed to do so. The manner of **depositing the amount 'on-line' through e-challan** by the user agency, shall be the same as in case of the proposals for diversion involving forest land more than 1 Ha. Funds like NPV, CA, Penal CA and Contingency charges shall continue to be deposited

in the ad-hoc CAMPA fund and Cost of trees and Departmental Charges shall be deposited in the District Treasury, as per existing practice.

5. **PLANTING AND MONITORING:** In the subsequent period, such Compensatory Plantations shall be raised on the pattern of other CA plantations raised from CAMPA Funds, getting funds against the approved APOs on year to year basis. The monitoring of plantations so raised shall be the responsibility of the H.P. State Forest Department. It should be ensured that the Nursery plants more than 1.5 m tall are planted. It should also be ensured that the advance works i.e. site survey, site clearance, Fencing and Pit digging is done much before the rainfall and weathering of soil takes place and the planting is done during the rainy season. If need be, the soil from nearby borrow pits, mixed with FYM may be used to fill the pits during planting.
- 5.1 **PLANTING:** Plants of the indigenous species conforming to the species in the neighbouring areas with local fruit trees in a mix of 40% should be planted. Once the substantial numbers of plants are required to be planted out of the approvals accorded by the Competent authority, the DFO shall submit the APO in routine under CAMPA funds for raising Compensatory Plantation under the scheme. The planting shall be done as per approved Compensatory Plantation scheme without any deviation. Any deviation carried out must be got approved from the CF/CCF concerned under intimation to the Nodal Officer (FCA), H.P.
- 5.1.1 **MONITORING:** The concerned DFOs shall maintain record in their office with details of the location, Map of plantation area showing coordinates at every corner and turning of the plantation block and at every 50 mtrs along the road in case of Strip Plantation, the species with number of tall plants planted, Name of Nursery for rearing Tall plants, total cost incurred against every such proposals approved (involving forest land diversion area upto 1 Ha) so that at a later date the status of plantations can be monitored.
- 5.1.2 **PHOTOGRAPHS OF THE AREA:** The photographs of the area **before and after** the plantation shall be forwarded to the Nodal Officer once the plantation is carried out.
- 5.1.3 **INSPECTION AND VERIFICATION BY CF/CCF:** For all compensatory Plantations so raised, the CCFs/CFs concerned shall inspect within a month from the date of planting and physically verify the plants so planted and submit a certificate to this effect to the Nodal Officer (FCA), for record.

Office of HP State Compensatory Afforestation Fund Management & Planning Authority
(HP State CAMPA), Aranya-Bhawan, Talland, Shimla - 171 001.

Cost Model for 1 Ha Block Plantation with 500 Tall Plants per Ha
4 strand B/wire fencing with RCC Fence Posts and maintenance for 7 years
(based on a 5 Ha compact site of plantation)

Sr. No.	Particulars of Works	Unit	Quantity	Rate per Unit at the wage rate of 200/-	Norm at the wage rate of 200/- for Non-Tribal areas	Norm at the wage rate of 250/- for Tribal areas
A	SURVEY, DEMARCATION & FENCING:-					
1	Survey/demarcation of plantation area i/c marking of sections	Ha	1	134.66	134.66	168.33
2	Cost of RCC Poles and painting	No	60	300.00	18000.00	18000.00
3	Cost of carriage of RCC Poles upto 2 Kms uphill/downhill	No	60	44.67	2679.93	3349.92
4	Preparation/Digging of holes of 20x30x50 cm size for fixing of fence	No.	60	12.08	724.78	905.98
5	Fixing of RCC fence posts in concrete i/c strutting	No	60	9.55	572.79	715.98
6	Carriage of B/wire from store to nearest road head near plantation site in motor transport (average carriage 10 kms)	Qntl	0.9	LS	500.00	500.00
7	Carriage of b/wire manually over a distance of 2 Kms uphill/downhill from road side to plantation site	Per Km per qntl	0.9	98.20	176.76	220.94
8	Stretching and fixing of b/wire in four strands	Rmt	720	6.40	4607.88	5759.86
9	Interlacing of thorny bushes along the fence	Rmt	180	5.45	981.58	1226.97
10	Cost of procurement of B/wire	Qntl	0.9	6930.00	6237.00	6237.00
Total -A/Survey, Demarcation & Fencing:					34615.38	37084.97
Or Say					34600.00	37100.00
B.	PLANTING:-					
1	Clearing the site of weeds/Bush cutting in strips of 1 to 2 mtr wide	Ha	1	1590.36	1590.36	1987.95
2	Digging of pits 90x90x90 cm	No	500	83.17	41585.63	51982.03
3	Filling of Pits 90x90x90 cms	No	500	7.08	3539.91	4424.89
4	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	500	LS	7500.00	7500.00
5	Carriage of plants in Poly bags (18"x24") from road side to plantation site over a distance of 2 Kms uphill/downhill manually	No	500	30.00	15000.00	18750.00
6	Addition of fertilizer/FYM to planting pits	No	500	LS	5000.00	6250.00
7	Planting of tall plants in pits i/c ramming	No	500	8.72	4359.89	5449.86
8	Construction of Inspection Path 60 cm wide	Rmt	100	14.67	1466.63	1833.29
9	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	500	75.00	37500.00	46875.00
10	De-weeding and hoeing twice a year	No	500	10.91	10906.39	13632.99
11	Watering the plants during months of stress	No	500	LS	4000.00	5000.00

Sr. No.	Particulars of Works	Unit	Quantity	Rate per Unit at the wage rate of 200/-	Norm at the wage rate of 200/- for Non-Tribal areas	Norm at the wage rate of 250/- for Tribal areas
12	Plantation Display Board [depicting the Name of the Compensatory Plantation, Total area of plantation, Total number of Plants, Species planted and the Name of all the Proposals with corresponding number of plants planted against each, for which the land was diverted]	No	1	LS	1000.00	1000.00
Total -B/Planting:					133448.81	164686.02
Or Say					133400.00	164700.00
Total Fencing and Planting (A+B)					168000.00	201800.00
C.	MAINTENANCE					
	1st year maintenance (10% beating up of failures)					
1	Re-Digging of pits 90x90x90 cm	No	50	49.89	2494.60	3118.26
2	Filling of Pits 90x90x90 cms	No	50	7.08	353.99	442.49
3	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	50	LS	750.00	750.00
4	Carriage of plants in Poly bags (18"x24") from road side to plantation site over a distance of 2 Kms uphill/downhill	No	50	30.00	1500.00	1875.00
5	Planting of tall plants in pits i/c ramming	No	50	8.72	435.99	544.99
6	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	50	75.00	3750.00	4687.50
7	Repair of fencing	Rmt	72	2.40	172.80	215.99
TOTAL 1st Year Maintenance					9457.38	11634.23
Or Say					9500.00	11600.00
	2nd year maintenance (5% beating up of failures)					
1	Re-Digging of pits 90x90x90 cm	No	25	49.89	1247.30	1559.13
2	Filling of Pits 90x90x90 cms	No	25	7.08	177.00	221.24
3	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	25	LS	350.00	350.00
4	Carriage of plants in Poly bags (18"x24") from road side to plantation site over a distance of 2 Kms uphill/downhill	No	25	30.00	750.00	937.50
5	Planting of tall plants in pits i/c ramming	No	25	8.72	217.99	272.49
6	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	25	75.00	1875.00	2343.75
7	Repair of fencing	Rmt	72	2.40	172.80	215.99
TOTAL 2nd Year Maintenance					4790.09	5900.11
Or Say					4800.00	5900.00

Sr. No.	Particulars of Works	Unit	Quantity	Rate per Unit at the wage rate of 200/-	Norm at the wage rate of 200/- for Non-Tribal areas	Norm at the wage rate of 250/- for Tribal areas
3rd year maintenance (5% beating up of failures)						
1	Re-Digging of pits 90x90x90 cm					
2	Filling of Pits 90x90x90 cms	No	25	49.89	1247.30	1559.13
3	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	25	7.08	177.00	221.24
4	Carriage of plants in Poly bags (18"x24") from road side to plantation site over a distance of 2 Kms uphill/downhill	No	25	LS	350.00	350.00
5	Planting of tall plants in pits i/c ramming	No	25	30.00	750.00	937.50
6	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	25	8.72	217.99	272.49
7	Repair of fencing	No	25	75.00	1875.00	2343.75
TOTAL 3rd Year Maintenance		Rmt	72	2.40	172.80	215.99
					4790.09	5900.11
Or Say						
					4800.00	5900.00
4th year maintenance (3% beating up of failures)						
1	Re-Digging of pits 90x90x90 cm					
2	Filling of Pits 90x90x90 cms	No	15	49.89	748.38	935.48
3	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	15	7.08	106.20	132.75
4	Carriage of plants in Poly bags (18"x24") from road side to plantation site over a distance of 2 Kms uphill/downhill	No	15	LS	210.00	210.00
5	Planting of tall plants in pits i/c ramming	No	15	30.00	450.00	562.50
6	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	15	8.72	130.80	163.50
7	Repair of fencing	No	15	75.00	1125.00	1406.25
TOTAL 4th Year Maintenance		Rmt	72	2.40	172.80	215.99
					2943.17	3626.46
Or Say						
					2900.00	3600.00
5th year maintenance (3% beating up of failures)						
1	Re-Digging of pits 90x90x90 cm					
2	Filling of Pits 90x90x90 cms	No	15	49.89	748.38	935.48
3	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	15	7.08	106.20	132.75
4	Carriage of plants in Poly bags (18"x24") from road side to plantation site over a distance of 2 Kms uphill/downhill	No	15	LS	210.00	210.00
		No	15	30.00	450.00	562.50

Sr. No.	Particulars of Works	Unit	Quantity	Rate per Unit at the wage rate of 200/-	Norm at the wage rate of 200/- for Non-Tribal areas	Norm at the wage rate of 250/- for Tribal areas
5	Planting of tall plants in pits i/c ramming	No	15	8.72	130.80	163.50
6	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	15	75.00	1125.00	1406.25
7	Repair of fencing	Rmt	72	2.40	172.80	215.99
	TOTAL 5th Year Maintenance				2943.17	3626.46
	6th year maintenance (2% beating up of failures)	Or Say			2900.00	3600.00
1	Re-Digging of pits 90x90x90 cm	No	10	49.89	498.92	623.65
2	Filling of Pits 90x90x90 cms	No	10	7.08	70.80	88.50
3	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	10	LS	140.00	140.00
4	Carriage of plants in Poly bags (18"x24") from road side to plantation site over a distance of 2 Kms uphill/downhill	No	10	30.00	300.00	375.00
5	Planting of tall plants in pits i/c ramming	No	10	8.72	87.20	109.00
6	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	10	75.00	750.00	937.50
7	Repair of fencing	Rmt	72	2.40	172.80	215.99
	TOTAL 6th Year Maintenance				2019.71	2489.64
	7th year maintenance (2% beating up of failures)	Or Say			2000.00	2500.00
1	Re-Digging of pits 90x90x90 cm	No	10	49.89	498.92	623.65
2	Filling of Pits 90x90x90 cms	No	10	7.08	70.80	88.50
3	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	10	LS	140.00	140.00
4	Carriage of plants in Poly bags (18"x24") from road side to plantation site over a distance of 2 Kms uphill/downhill	No	10	30.00	300.00	375.00
5	Planting of tall plants in pits i/c ramming	No	10	8.72	87.20	109.00
6	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	10	75.00	750.00	937.50
7	Repair of fencing	Rmt	72	2.40	172.80	215.99
	TOTAL 7th Year Maintenance				2019.71	2489.64
	TOTAL (C) Maintenance cost for 7 years	Or Say			2000.00	2500.00
					28900.00	35600.00

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Sr. No.	Particulars of Works	Unit	Quantity	Rate per Unit at the wage rate of 200/-	Norm at the wage rate of 200/- for Non- Tribal areas	Norm at the wage rate of 250/- for Tribal areas
D	TOTAL NEW + MAINTENANCE D= (A+B+C)				196900.00	237400.00
E	Contingency					
	Contingency 5% of all above				9845.00	11870.00
	TOTAL Contingency (E)				9845.00	11870.00
	Total Plantation + Contingency (D+E)				206745.00	249270.00
F	Departmental Charges					
	17.5% of all above				36180.38	43622.25
	Total departmental Charges (F)				36180.38	43622.25
	GRAND TOTAL OF SCHEME (D+E+F)				242925.38	292892.25
	Or Say				242900.00	292900.00

APPROVED


 Pr. C.C.F. (HoFF) Himachal Pradesh

Office of HP State Compensatory Afforestation Fund Management & Planning Authority
(HP State CAMPA), Aranya-Bhawan, Talland, Shimla - 171 001.

SP-1

**Cost Model for 1 KM Strip Plantation with 200 Tall Plants per Km
With Iron Tree Guards and maintenance for 7 years
(Two Rows with a Spacing of 5 mtrs row to row and 10 mtrs plant to plant)**

Sr. No.	Particulars of Works	Unit	Quantity	Rate per Unit at the wage rate of 200/-	Norm at the wage rate of 200/- for Non-Tribal areas	Norm at the wage rate of 250/- for Tribal areas
A	SURVEY, DEMARCATION & FENCING:-					
1	Survey/demarcation of plantation area i/c marking of sections	Ha	1	134.66	134.66	168.33
2	Lay out of pits	Ha	1	227.33	227.33	284.16
3	Cost of Iron Tree Guards	No	200	1000.00	200000.00	200000.00
4	Carriage of Tree Guards from store to nearest road head near plantation site in motor transport (average distance 15 Kms)	per tree guard	200	15.00	3000.00	3000.00
6	Fixing of Tree Guards in concrete including cost of cement etc	No	200	100.00	20000.00	25000.00
Total -A/Survey, Demarcation & Fencing:					223361.99	228452.49
Or Say					223400.00	228500.00
B.	PLANTING:-					
1	Clearing the site of weeds/Bush cutting in strips of 1 to 2 mtr wide	Ha	1	1590.36	1590.36	1987.95
2	Digging of pits 90x90x90 cm	No	200	83.17	16634.25	20792.81
3	Filling of Pits 90x90x90 cms	No	200	7.08	1415.96	1769.96
4	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 15 Kms)	No	200	LS	3000.00	3000.00
5	Addition of fertilizer/FYM to planting pits	No	200	LS	2000.00	2500.00
6	Planting of tall plants in pits i/c ramming	No	200	8.72	1743.96	2179.95
7	Cost of Tall plants raised in Departmental Nurseries (3 year old in 18"x24" bags)	No	200	75.00	15000.00	18750.00
8	De-weeding and hoeing twice a year	No	200	10.91	4362.56	5453.20
9	Watering the plants during months of stress	No	200	LS	1600.00	2000.00
10	Plantation Display Board [depicting the Name of the Compensatory Plantation, Total area of plantation, Total number of Plants, Species planted and the Name of all the Proposals with corresponding number of plants planted against each, for which the land was diverted]	No	1	LS	2500.00	2500.00
Total -B/Planting:					49847.09	60933.86
Or Say					49800.00	60900.00
Total Fencing and Planting (A+B)					273200.00	289400.00

SP-2

Sr. No.	Particulars of Works	Unit	Quantity	Rate per Unit at the wage rate of 200/-	Norm at the wage rate of 200/- for Non-Tribal areas	Norm at the wage rate of 250/- for Tribal areas
C.	MAINTENANCE					
	1st year maintenance (10% beating up of failures)					
1	Re-Digging of pits 90x90x90 cm	No	20	49.89	997.84	1247.30
	Filling of Pits 90x90x90 cms	No	20	7.08	141.60	177.00
	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	20	LS	300.00	300.00
	Planting of tall plants in pits i/c ramming	No	20	8.72	174.40	217.99
	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	20	75.00	1500.00	1875.00
	TOTAL 1st Year Maintenance					
	Or Say				3113.83	3817.29
	2nd year maintenance (5% beating up of failures)				3100.00	3800.00
	Re-Digging of pits 90x90x90 cm	No	10	49.89	498.92	623.65
	Filling of Pits 90x90x90 cms	No	10	7.08	70.80	88.50
	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	10	LS	150.00	150.00
	Planting of tall plants in pits i/c ramming	No	10	8.72	87.20	109.00
	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	10	75.00	750.00	937.50
	TOTAL 2nd Year Maintenance					
	Or Say				1556.92	1908.65
	3rd year maintenance (5% beating up of failures)				1600.00	1900.00
	Re-Digging of pits 90x90x90 cm	No	10	49.89	498.92	623.65
	Filling of Pits 90x90x90 cms	No	10	7.08	70.80	88.50
	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	10	LS	150.00	150.00
	Planting of tall plants in pits i/c ramming	No	10	8.72	87.20	109.00
	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	10	75.00	750.00	937.50
	TOTAL 3rd Year Maintenance					
	Or Say				1556.92	1908.65
	4th year maintenance (3% beating up of failures)				1600.00	1900.00
	Re-Digging of pits 90x90x90 cm	No	6	49.89	299.35	374.19
	Filling of Pits 90x90x90 cms	No	6	7.08	42.48	53.10
	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	6	LS	90	90.00

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SP-3

Sr. No.	Particulars of Works	Unit	Quantity	Rate per Unit at the wage rate of 200/-	Norm at the wage rate of 200/- for Non-Tribal areas	Norm at the wage rate of 250/- for Tribal areas
	Planting of tall plants in pits i/c ramming	No	6	8.72	52.32	65.40
	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	6	75.00	450	562.50
	TOTAL 4th Year Maintenance				934.15	1145.19
	Or Say				900.00	1100.00
	5th year maintenance (3% beating up of failures)					
	Re-Digging of pits 90x90x90 cm	No	6	49.89	299.35	374.19
	Filling of Pits 90x90x90 cms	No	6	7.08	42.48	53.10
	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	6	LS	90.00	90.00
	Planting of tall plants in pits i/c ramming	No	6	8.72	52.32	65.40
	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	6	75.00	450.00	562.50
	TOTAL 5th Year Maintenance				934.15	1145.19
	Or Say				900.00	1100.00
	6th year maintenance (2% beating up of failures)					
	Re-Digging of pits 90x90x90 cm	No	4	49.89	199.57	249.46
	Filling of Pits 90x90x90 cms	No	4	7.08	28.32	35.40
	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	4	LS	60.00	60.00
	Planting of tall plants in pits i/c ramming	No	4	8.72	34.88	43.60
	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	4	75.00	300.00	375.00
	TOTAL 6th Year Maintenance				622.77	763.46
	Or Say				600.00	800.00
	7th year maintenance (2% beating up of failures)					
	Re-Digging of pits 90x90x90 cm	No	4	49.89	199.57	249.46
	Filling of Pits 90x90x90 cms	No	4	7.08	28.32	35.40
	Carriage of poly plants from nursery to nearest road head near plantation site in motor transport (average distance 10 Kms)	No	4	LS	60.00	60.00
	Planting of tall plants in pits i/c ramming	No	4	8.72	34.88	43.60
	Cost of Tall plants raised in Departmental Nurseries(3 year old in 18"x24" bags)	No	4	75.00	300.00	375.00
	TOTAL 7th Year Maintenance				622.77	763.46
	Or Say				600.00	800.00
	TOTAL (C) Maintenance cost for 7 years				9300.00	11400.00
D	TOTAL NEW + MAINTENANCE D= (A+B+C)				282500.00	300800.00

SP-4

Sr. No.	Particulars of Works	Unit	Quantity	Rate per Unit at the wage rate of 200/-	Norm at the wage rate of 200/- for Non- Tribal areas	Norm at the wage rate of 250/- for Tribal areas
E	Contingency					
	Contingency 5% of all above					
	TOTAL Contingency (E)				14125.00	15040.00
	Total Plantation + Contingency (D+E)				14125.00	15040.00
F	Departmental Charges				296625.00	315840.00
	17.5% of all above					
	Total departmental Charges (F)				51909.38	55272.00
	GRAND TOTAL OF SCHEME (D+E+F)				51909.38	55272.00
	Or Say				348534.38	371112.00
					348500.00	371100.00

APPROVED


 Pr. C.C.F. (HoFF) Himachal Pradesh