

Full Title of the Project:- **Dugar Hydro Electric Project**

File No.:-

Date of Proposal:-

SCHEME FOR COMPENSATORY AFFORESTATION

Detailed scheme for Compensatory Afforestation to be carried out in lieu of 211.842 ha of Forest land to be diverted for Dugar Hydro Electric Project in Pangi Valley of Chamba District.

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

SN	Division	Name of RF/PF	Range	Village	Name of Area	Area	Compartment no	Survey no
1	Pangi	RF	Killar	Bindrabani	Chanchalperi	15.377	20	16/3
2	Pangi	RF	Killar	Bindrabani	Bindrabani	37.44	18	5
3	Pangi	PF	Killar	Kwas	Killar Dhar	11.06	4	855/817/331
4	Pangi	RF	Killar	Chilkot	Chilkot 1	15.915	7	13/3
5	Pangi	RF	Killar	RF Kanun	Kanun	20.10	2	7/1
6	Pangi	PF	Killar	Rusmus	Sural	21.28	3	475/451
7	Pangi	RF	Killar	RF Urnu	Urnu	6.76	3	9/3
8	Pangi	PF	Killar	Ghangeet	Shelli	2.65	5	397/1
9	Pangi	RF	Killar	RF Luj	Sansari	2.12	1	5/1
10	Pangi	PF	Killar	Luj	Bistow	7.30	1	338
11	Pangi	PF	Killar	Chacherwas	Rogy	25.70	4	178
12	Pangi	RF	Killar	Chilkot	Chilkot 2	27.35	7	13/3
13	Pangi	PF	Killar	Tundroo	Shinkal Dhar1	13.36	7	298/252
14	Pangi	PF	Killar	Dhar Shinkal	Shinkal Dhar2	8.99	2	1
15	Pangi	PF	Saach	Sach	Sach Chauri 1	6.912	3	242
16	Pangi	PF	Saach	Sach	Sach Chauri 2	15.93	3	242
17	Pangi	RF	Killar	RF Chhatwani	Chhatwani	26.89	4	26/11
18	Pangi	PF	Killar	Ghangeet	Sheli DPF	9.46	5	361/38
19	Pangi	RF	Killar	Sidh Ka Dera	Sidh ka dera	38.98	5	6/4 & 7/4
20	Pangi	RF	Killar	RF Luj	Mehrote	89.71	1	4/1
21	Pangi	DPF	Killar	DPF Pinccho	Pinccho	20.40	1	2
Total						423.684		


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2. Description of the Area

Whether the site selected for Compensatory Afforestation is a land bank or not	No
If the CA site is other than the land bank, reason to be given	The proposed sites are degraded forest land having less density. Hence, it is selected for Compensatory Afforestation.
In case of non-forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary	Non Forest land is not available for raising Compensatory Afforestation.
Soil type	Sandy - Loam
Topography - Hilly /Undulating /Plain - Slope: Steep/Medium/Gentle	Hilly Steep
Whether the area is bearing any root stock of vegetation	Yes, but the density is very less due to grazing pressure

3. Plantation Model:-

Considering the 2021-2022 Plantation rate for Tribal 1, the total outlay of **Rs. Six crore Fifty One lac Thirty Nine thousand Two hundred and Ninety Eight only** would be utilized for the plantation of species in the designated Compensatory Afforestation area (Details enclosed as **Annex-I**).

4. Schedule of Plantation Programme

Considering the 2021-2022 Plantation and Maintenance rate for Tribal 1, the total outlay of **Rs. Twelve Crore Thirty Four Lac One hundred Four only** would be utilized for the plantation and maintenance of species in the designated Compensatory Afforestation area (Details enclosed as **Annex-II**).


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Patch wise Breakup of cost of CA scheme Plantation Model

Annex-I

S.no	Patch No.	Name of Area	Area (ha)	Range	Rate (per ha.) for Tribal 1 for Plantation (Rs.)	Nursery cost (per ha.)	Total rate (per ha.)	Total Amount (Rs.)	Soil & Moisture Conservation works @ 25% of planting Cost	Total Amount (Rs.)	
1	10	Chanchalperi	15.377	Killar	98785	24211	122996	1891309.00	472827.00	2364136.00	
2	11	Bindrabani	37.440	Killar	98785	24211	122996	4604970.00	1151243.00	5756213.00	
3	2	Killar Dhar	11.060	Killar	98785	24211	122996	1360336.00	340084.00	1700420.00	
4	3	Chilkot 1	15.915	Killar	98785	24211	122996	1957481.00	489370.00	2446851.00	
5	12	Kanun	20.100	Killar	98785	24211	122996	2472220.00	618055.00	3090275.00	
6	13	Sural	21.280	Killar	98785	24211	122996	2617355.00	654339.00	3271694.00	
7	8	Urnu	6.760	Killar	98785	24211	122996	831453.00	207863.00	1039316.00	
8	4	Shelli	2.650	Killar	98785	24211	122996	325939.00	81485.00	407424.00	
9	5	Sansari	2.120	Killar	98785	24211	122996	260752.00	65188.00	325940.00	
10	5	Bistow	7.300	Killar	98785	24211	122996	897871.00	224468.00	1122339.00	
11	7	Rogy	25.700	Killar	98785	24211	122996	3160997.00	790249.00	3951246.00	
12	3	Chilkot 2	27.350	Killar	98785	24211	122996	3363941.00	840985.00	4204926.00	
13	6	Shinkal Dhar1	13.360	Killar	98785	24211	122996	1643227.00	410807.00	2054034.00	
14	6	Shinkal Dhar2	8.990	Killar	98785	24211	122996	1105734.00	276434.00	1382168.00	
15	9	Sach Chauri 1	6.912	Saach	98785	24211	122996	850148.00	212537.00	1062685.00	
16	9	Sach Chauri 2	15.930	Saach	98785	24211	122996	1959326.00	489832.00	2449158.00	
17	7	Chhatwani	26.890	Killar	98785	24211	122996	3307362.00	826841.00	4134203.00	
18	4	Sheli DPF	9.460	Killar	98785	24211	122996	1163542.00	290886.00	1454428.00	
19	1	Sidh ka dera	38.980	Killar	98785	24211	122996	4794384.00	1198596.00	5992980.00	
20	5	Mehrote	89.710	Killar	98785	24211	122996	11033971.00	2758493.00	13792464.00	
21	8	Pincho	20.400	Killar	98785	24211	122996	2509118.00	627280.00	3136398.00	
Total Area:			423.684	Total Cost (A)							65139298.00

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Patch wise Breakup of maintenance cost of CA scheme																	Annex-II All Amount in Rupees						
Patch No.	Name of Area	Chanchalperi	10	11	2	3	12	13	8	4	5	5	7	3	6	6	9	9	7	4	1	5	8
	Patch wise Area (ha)	15.377	37.440	11.060	15.915	20.100	21.280	6.760	2.650	2.120	7.300	25.700	27.350	13.360	8.990	15.930	26.890	9.460	38.980	5	Mehrote	Pincho	
	Range	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Saach	Saach	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar
	1 st Year	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00	11380.00
	2 nd Year	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00	7675.00
	3 rd Year	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00
	4 th Year	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00
	5 th Year	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00
	6 th Year	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00
	7 th Year	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00
	8 th Year	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00
	9 th Year	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00
	10 th Year	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00	3975.00
	1 st Year	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00	7263.00
	2 nd Year	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00	4842.00
	3 rd Year	2421.00	2421.00	2421.00	2421.																		

5. Technical Details

Technical details of compensatory afforestation scheme are as follows:

General Details	Details of all the RF, DPF and dhar is to be mentioned
Spacement	1100 plant per ha
Species	Conifer & Broad leave
Plantation method	Pits are to be dug 02-03 months in advance of planting to allow for weathering of soil and to improve its physical & chemical properties and planting is done in 45 cum or 30 cum pits.
Soil & Moisture Conservation works	For soil and water conservation works, MRI works i.e. trenches, gully plugging, vegetation measures will be carried out. The water harvesting moisture conservation trenches shall be of size 3 meters x 1 meters x 2.3 meters. The dug up earth shall be used to develop mound on the downhill side. The depth will vary from 0.2 meters on upper side to 0.3 meter on the downhill side.
Protection (Fencing, Watchman, People's Participation)	Barbed wire fencing in fourth strands 05 th year maintenance, participatory mode of work etc.
Proposed Monitoring Mechanism	As per guidelines, time to time work will be monitored by executing agency & by forest department officers while on tour.
Any Other Information	Due to erratic & feeble monsoon in Pangi valley, the planting in monsoon is not feasible. Therefore, planting in Pangi valley is to be carried out in late November & early December taking advantage of little rainfall which precedes the snow in valley.

The Compensatory Afforestation will be carried out by the Forest department of Himachal Pradesh at the cost of funds to be provided by the User Agency. The work will be carried out immediately after the Government of India conveyed its approval.


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Approved


Chief Conservator of Forests (T)
Chamba Forest Circle, Chamba (H.P.)