

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	Survey Sheet No.
1	Pangi	UPF	Killar	Kwas	Killar Dhar1	8.041	52C/8
2	Pangi	UPF	Killar	Kwas	Killar Dhar2	17.300	52C/8
3	Pangi	UPF	Killar	Chacherwas	Rogy	5.690	52C/8
4	Pangi	RF	Killar	RF Chhatwani	Chhatwani	23.850	52C/8
5	Pangi	RF	Killar	Sidh Ka Dera	Sidh ka dera	14.361	52C/8
6	Pangi	UPF	Sach	Findpaar	Findpaar	21.100	52C/8
7	Pangi	RF	Killar	Pregran	Pregran1	16.580	52C/8
8	Pangi	RF	Killar	Pregran	Pregran2	20.290	52C/8
9	Pangi	RF	Killar	Pregran	Pregran3	11.000	52C/8
10	Pangi	RF	Killar	RF Luj	Mehrote	144.122	52C/8
11	Pangi	DPF	Killar	Luj	Bistow	11.650	52C/8
12	Pangi	DPF	Sach	Sach	Sach Chauri 1	7.750	52D5
13	Pangi	DPF	Sach	Sach	Sach Chauri 2	16.250	52D5
14	Pangi	DPF	Sach	Mindhal	Mindhal	14.270	52D5
15	Pangi	DPF	Killar	Bindrabani	Chanchalperi	20.660	52C/8
16	Pangi	DPF	Killar	Bindrabani	Murthalu	49.800	52C/8
17	Pangi	DPF	Killar	Dharwas	Dighrei	20.970	52C/8
Total						423.684	


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Range Forest Officer
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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 2022-2023 Plantation rate for Tribal 1, the total outlay of **Rs. 6,92,25,202/- (Six crore Ninety Two lac Twenty Five thousand Two hundred Two 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 2022-2023 Plantation and Maintenance rate for Tribal 1, the total outlay of **Rs. 13,26,98,660/- (Thirteen Crore Twenty Six lac Ninety Eight thousand Six hundred Sixty 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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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
Spacing	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 Pangti valley, the planting in monsoon is not feasible. Therefore, planting in Pangti 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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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	1	Killar Dhar1	8.041	Killar	106500	24211	130711	1051047.00	262762.00	1313809.00
2	2	Killar Dhar2	17.300	Killar	106500	24211	130711	2261300.00	565325.00	2826625.00
3	3	Rogy	5.690	Killar	106500	24211	130711	743746.00	185937.00	929683.00
4	4	Chhatwani	23.850	Killar	106500	24211	130711	3117457.00	779364.00	3896821.00
5	5	Sidh ka dera	14.361	Killar	106500	24211	130711	1877141.00	469285.00	2346426.00
6	6	Findpaar	21.100	Saach	106500	24211	130711	2758002.00	689501.00	3447503.00
7	7	Pregran1	16.580	Killar	106500	24211	130711	2167188.00	541797.00	2708985.00
8	8	Pregran2	20.290	Killar	106500	24211	130711	2652126.00	663032.00	3315158.00
9	9	Pregran3	11.000	Killar	106500	24211	130711	1437821.00	359455.00	1797276.00
10	10	Mehrote	144.122	Killar	106500	24211	130711	18838331.00	4709583.00	23547914.00
11	11	Bistow	11.650	Killar	106500	24211	130711	1522783.00	380696.00	1903479.00
12	12	Sach Chauri 1	7.750	Saach	106500	24211	130711	1013010.00	253253.00	1266263.00
13	13	Sach Chauri 2	16.250	Saach	106500	24211	130711	2124054.00	531014.00	2655068.00
14	14	Mindhal	14.270	Saach	106500	24211	130711	1865246.00	466312.00	2331558.00
15	15	Chanchalperi	20.660	Killar	106500	24211	130711	2700489.00	675122.00	3375611.00
16	16	Murthalu	49.800	Killar	106500	24211	130711	6509408.00	1627352.00	8136760.00
17	17	Dighrei	20.970	Killar	106500	24211	130711	2741010.00	685253.00	3426263.00
Total Area:			423.684					Total Cost (A)		69225202.00

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 Divisional Forest Officer
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Patch wise Breakup of maintenance cost of CA scheme

Annex-II

Patch wise Breakup of maintenance cost of CA scheme																	Annex-II	
Patch No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Name of Area	Killar Dhar1	Killar Dhar2	Rogy	Chhatwani	Sidh ka dera	Findpaar	Pregran1	Pregran2	Pregran3	Mehrote	Bistow	Sach Chouri 1	Sach Chouri 2	Mindal DPF	Chanchalperi	Murthalu	Dighrei	
Patch wise Area (ha)	8.041	17.300	5.690	23.850	14.361	21.100	16.580	20.290	11.000	144.122	11.650	7.750	16.250	14.270	20.660	49.800	20.970	
Range	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Killar	Saach	Saach	Killar	Killar	Killar	Killar	
Rate (per ha.) for Tribal Area	1 st Year	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	13300.00	
	2 nd Year	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	8900.00	
	3 rd Year	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	
	4 th Year	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	
	5 th Year	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	
	6 th Year	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	
	7 th Year	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	
	8 th Year	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	
	9 th Year	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	
	10 th Year	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	4600.00	
Nursery cost (per ha.)	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	
	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	
	3 rd Year	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	
	4 th Year	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	
	5 th Year	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	
	6 th Year	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	
	7 th Year	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	
	8 th Year	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	
	9 th Year	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	
	10 th Year	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	2421.00	
Total rate (per ha.)	1 st Year	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	20563.00	
	2 nd Year	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	13742.00	
	3 rd Year	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	
	4 th Year	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	
	5 th Year	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	
	6 th Year	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	
	7 th Year	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	
	8 th Year	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	
	9 th Year	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	
	10 th Year	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	7021.00	
Total Amount (Rs.)	1 st Year	165347.00	355740.00	117003.00	490428.00	295305.00	433879.00	340935.00	417223.00	226193.00	2963581.00	239559.00	159363.00	334149.00	293434.00	424832.00	1024037.00	
	2 nd Year	110499.00	237737.00	78192.00	327747.00	197349.00	289956.00	227842.00	278825.00	151162.00	1980525.00	160094.00	106501.00	223308.00	196098.00	283910.00	684352.00	
	3 rd Year	56456.00	121463.00	39949.00	167451.00	100829.00	148143.00	116408.00	142456.00	77231.00	1011881.00	81795.00	54413.00	114091.00	100190.00	145054.00	349646.00	
	4 th Year	56456.00	121463.00	39949.00	167451.00	100829.00	148143.00	116408.00	142456.00	77231.00	1011881.00	81795.00	54413.00	114091.00	100190.00	145054.00	349646.00	
	5 th Year	56456.00	121463.00	39949.00	167451.00	100829.00	148143.00	116408.00	142456.00	77231.00	1011881.00	81795.00	54413.00	114091.00	100190.00	145054.00	349646.00	
	6 th Year	56456.00	121463.00	39949.00	167451.00	100829.00	148143.00	116408.00	142456.00	77231.00	1011881.00	81795.00	54413.00	114091.00	100190.00	145054.00	349646.00	
	7 th Year	56456.00	121463.00	39949.00	167451.00	100829.00	148143.00	116408.00	142456.00	77231.00	1011881.00	81795.00	54413.00	114091.00	100190.00	145054.00	349646.00	
	8 th Year	56456.00	121463.00	39949.00	167451.00	100829.00	148143.00	116408.00	142456.00	77231.00	1011881.00	81795.00	54413.00	114091.00	100190.00	145054.00	349646.00	
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