

PART -II

(To be filled on by the concerned Deputy Conservator of Forest)
State Serial No. of Proposal

7. Location of project / Scheme:

- (i) State / Union Territory: Himachal Pradesh
- (ii) District: Chamba
- (iii) Forest Division: Pangi Forest Division
- (iv) Area of Forest land proposed for diversion (in ha): 211.842 ha
- (v) Legal Status of Forest:

Sl. No.	Division	Forest Land (ha)	Legal Status
1	Pangi	2.4	River
2	Pangi	127.75	Reserve Forest
3	Pangi	81.69	Protected Forest
		211.84	

(vi) Density of vegetation:

Sl. No.	Area (in ha)	Density	Eco-class
1	2.4	0.3	Eco 6
2	15.95	0.04	Eco 6
3	6.9	0.09	Eco 6
4	5.5	0.22	Eco 6
5	25.8	0.22	Eco 6
6	35.59	0.3	Eco 6
7	13.09	0.04	Eco 6
8	12.02	0.02	Eco 6
9	0.31	0.3	Eco 6
10	18.3	0.06	Eco 6
11	3.42	0.3	Eco 6
12	22.32	0.3	Eco 6
13	14.52	0.3	Eco 6
14	15.72	0.3	Eco 6
15	8.7	0.04	Eco 6
16	11.3	0.7	Eco 6
Total	211.84		


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(vii) Species-wise (scientific name)

And diameter class-wise enumeration of trees (to be enclosed)

In case of Irrigation/hydel projects enumeration at FRL, FRL-2 meter & FRL-4 meter to be enclosed.

Species-wise local /scientific names and girth-wise enumeration of trees at FRL:

S. No.	Local Name	Scientific Name	(0-30) cm	31-60 (cm)	61-90 (cm)	91-120 (cm)	121-150 (cm)	>150 (cm)	Total Nos.
1	Akhrot	<i>Juglans regia</i>	47	50	28	2	0	0	127
2	Ash/Shunu	<i>Fraxinus floribunda</i>	98	55	3	0	0	0	156
3	Badah/Willow	<i>Willow/Salix</i>	956	40	0	0	0	0	996
4	Bakharu	<i>Lonicera</i>	105	6	0	0	0	0	111
5	Bhujpatra	<i>Betula utilis</i>	1	3	0	0	0	0	4
6	Chilgoza	<i>Pinus gerardiana</i>	626	272	27	13	0	0	938
7	Deodar	<i>Cedrus deodara</i>	652	596	300	82	0	0	1630
8	Fir / Spruce	<i>Pecia simithiana morinda</i>	8	5	3	1	0	0	17
9	Goon	<i>H c natt</i>	469	423	107	41	0	0	1040
10	Jammu	<i>Prunus padus</i>	3	1	0	0	0	0	4
11	Kail	<i>Pinus wallichiana</i>	182	64	33	15	0	0	294
12	Kainth	<i>Pires pisia</i>	19	21	4	0	0	0	44
13	Khadak	<i>Cettris australice</i>	1038	525	55	6	0	0	1624
14	Killar	<i>Parrotis Jacquemontiana</i>	9724	36	1	0	0	0	9761
15	Mandar / Mapple	<i>Acer Caesium</i>	626	95	1	0	0	0	722
16	Maral	<i>Almus</i>	125	89	28	4	0	0	246
17	Poplar/Safeda	<i>populus alba</i>	38	21	1	0	0	0	60
18	Payakh	<i>alnus nitida / alder</i>	951	568	89	21	0	0	1629
19	Pingyath	<i>Crataegus</i>	47	2	0	0	0	0	49
20	Robinia	<i>Robinia spedeuocacia</i>	3	3	0	0	0	0	6
21	Sanjal	<i>Fraxinus xynthozeloides</i>	945	87	1	0	0	0	1033
22	Thangi	<i>Corylus Columa</i>	185	87	9	5	0	0	286
	Total Nos of trees at FRL		16848	3049	690	190	0	0	20777

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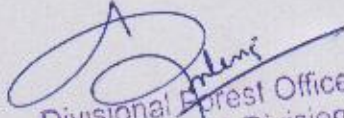
Species-wise local /scientific names and girth-wise enumeration of trees at FRL -2 meter:

S. No	Local Name	Scientific Name	(0-30) cm	31-60 (cm)	61-90 (cm)	91 - 120 (cm)	121-150 (cm)	>150 (cm)	Total Nos.
1	Akhrot	<i>Juglans regia</i>	47	49	27	2	0	0	125
2	Ash/Shunu	<i>Fraxinus floribunda</i>	98	55	3	0	0	0	156
3	Badah/Willow	<i>Willow/Salix</i>	946	38	0	0	0	0	984
4	Bakharu	<i>Lonicera</i>	105	6	0	0	0	0	111
5	Bhujpatra	<i>Betula utilis</i>	1	3	0	0	0	0	4
6	Chilgoza	<i>Pinus gerardiana</i>	618	268	26	13	0	0	925
7	Deodar	<i>Cedrus deodara</i>	631	585	298	81	0	0	1595
8	Fir / Spruce	<i>Pecia simithiana morinda</i>	8	5	3	1	0	0	17
9	Goon	<i>H c natt</i>	468	422	107	41	0	0	1038
10	Jammu	<i>Prunus padus</i>	3	1	0	0	0	0	4
11	Kail	<i>Pinus wallichiana</i>	173	63	32	15	0	0	283
12	Kainth	<i>Pires pisia</i>	19	21	4	0	0	0	44
13	Khadak	<i>Cettris australice</i>	1024	517	54	6	0	0	1601
14	Killar	<i>Parrotis Jacquemontiana</i>	9704	35	1	0	0	0	9740
15	Mandar / Mapple	<i>Acer Caesium</i>	621	92	1	0	0	0	714
16	Maral	<i>Almus</i>	122	87	28	4	0	0	241
17	Poplar/Safeda	<i>populus alba</i>	37	20	1	0	0	0	58
18	Payakh	<i>alnus nitida / alder</i>	932	557	87	21	0	0	1597
19	Pingyath	<i>Crataegus</i>	47	2	0	0	0	0	49
20	Robinia	<i>Robinia spedeuocacia</i>	3	3	0	0	0	0	6
21	Sanjal	<i>Fraxinus xynthozeloides</i>	932	86	1	0	0	0	1019
22	Thangi	<i>Corylus Columa</i>	180	87	9	5	0	0	281
	Total Nos of trees at FRL -2 M		16719	3002	682	189	0	0	20592

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Species-wise local /scientific names and girth-wise enumeration of trees at FRL -4 meter:

S. No.	Local Name	Scientific Name	(0-30) cm	31-60 (cm)	61-90 (cm)	91 - 120 (cm)	121-150 (cm)	>150 (cm)	Total Nos.
1	Akhrot	<i>Juglans regia</i>	47	49	26	2	0	0	124
2	Ash/Shunu	<i>Fraxinus floribunda</i>	96	55	2	0	0	0	153
3	Badah/Willow	<i>Willow/Salix</i>	933	36	0	0	0	0	969
4	Bakharu	<i>Lonicera</i>	105	6	0	0	0	0	111
5	Bhujpatra	<i>Betula utilis</i>	1	3	0	0	0	0	4
6	Chilgoza	<i>Pinus gerardiana</i>	608	263	26	13	0	0	910
7	Deodar	<i>Cedrus deodara</i>	608	572	290	80	0	0	1550
8	Fir / Spruce	<i>Picea simithiana morinda</i>	8	5	3	1	0	0	17
9	Goon	<i>Hicoria natta</i>	469	422	107	41	0	0	1039
10	Jammu	<i>Prunus padus</i>	3	1	0	0	0	0	4
11	Kail	<i>Pinus wallichiana</i>	164	60	32	14	0	0	270
12	Kainth	<i>Picea picea</i>	19	21	4	0	0	0	44
13	Khadak	<i>Cedrus australis</i>	1020	513	54	6	0	0	1593
14	Killar	<i>Parrotia Jacquemontiana</i>	9671	34	1	0	0	0	9706
15	Mandar / Mapple	<i>Acer Caesium</i>	618	92	1	0	0	0	711
16	Maral	<i>Alnus</i>	122	87	28	4	0	0	241
17	Poplar/Safeda	<i>populus alba</i>	37	19	1	0	0	0	57
18	Payakh	<i>alnus nitida / alder</i>	920	549	86	20	0	0	1575
19	Pingyath	<i>Crataegus</i>	47	2	0	0	0	0	49
20	Robinia	<i>Robinia speciosa</i>	3	3	0	0	0	0	6
21	Sanjal	<i>Fraxinus xanthoxeloides</i>	910	82	1	0	0	0	993
22	Thangi	<i>Corylus Columa</i>	174	84	9	5	0	0	272
	Total Nos of trees at FRL - 4 M		16583	2958	671	186	0	0	20398

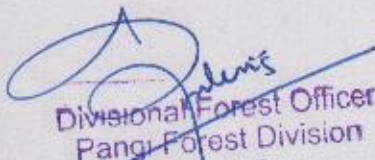

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Working plan prescription for the forest land proposed for diversion:

The 500 MW Dugar Hydro Electric Project encompasses 211.842 ha of forest land to be diverted for construction of Hydro Power Project. The working plan prescription of the Forest Land proposed for diversion has been covered under Plantation Working Circle of Pangi Forest Division.

(viii) Brief on vulnerability of the forest vulnerable are to the erosion:

Government of Himachal Pradesh has policy on Catchment area treatment of the Basin where the project proponent is liable to pay 1.5% of the project cost towards the treatment of Catchment. As the Project is of greater capacity of 500 MW, the project would contribute enormous amount towards the same. Further, the project proponent would perform the Reservoir Rim Treatment which is a part of Environment Management Plan prepared by the Project proponent. A reservoir would be formed submerging 160.45 ha of land, the reservoir spread would be extending along the river Chenab up to approx. 10.3 km stretch, the maximum width of the reservoir at FRL of 2114 m is expected to be about 200 m. The reservoir rim area is sparsely vegetated and mostly inaccessible. The upper reaches of reservoir rim can be approached via Killar, Chamba and Punto roads. The geological mapping has been carried out with particular reference to reservoir competency aspects like


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landslides, permeable rock beds, presence of economic minerals etc. Lithologically, the reservoir is located in massive crystalline rocks of gneisses, micaceous quartzite and schist.

In general, the valley slopes are found to be stable. In the entire mapped area only one small landslide has been found along the Killar road, located on the left bank of Mahal nala and restricted to its slide slope at El. 2250 m i.e., about 160 m above the FRL (El. 2114m). This landslide at present is fairly stable and otherwise also has no implication of any kind whatsoever on the competency of the proposed reservoir.

Therefore, the stabilized rim post its treatment and the good rock profile of the valley would pose less challenge on vulnerable of Forest area to erosion.

(ix) Approximate distance of proposed site For diversion from boundary of forest (in km): 0.35 km

(x) Whether forms part of National park, Wildlife Sanctuary, biosphere reserve, tiger reserve, Elephant Corridor, etc. (If so, the details of area and comments of the chief Wildlife Warden to be annexed):

No

(xi) Whether any rare/endangered/unique species of flora and fauna found in the area? If so, details thereof:

No

(xii) Whether any projected archaeological / heritage Site/defence establishment or any other important Monument is located in the area? If so, the details thereof with NOC, from competent authority, if required:

No

8. Whether requirement of Forest Land as proposed by the user agency in col.2 of part-I is unavoidable and barest minimum for the project? If no, recommended area item-wise with details of alternative examined:

Yes

9. Whether any work in violation of the Act has been carried out? If yes, details of the same including period of work done, action taken on erring officials. Whether work in violation is still in progress:

No


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10. Details of compensatory afforestation scheme:

(i) Details of non forest area / degraded forest area identified for compensatory afforestation. Its distance from adjoining forest, number of Patches, size of each patch.

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		

(ii) Map showing Non-forest / degraded forest area identified for compensatory afforestation and adjoining forest boundaries:

Attached at Page 143 to 157

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(iii) Details compensatory afforestation scheme including species to be planted, implementing agency time schedule, cost structure etc.

Attached at Page_158 to 161

(iv) Total financial outlay for compensatory Afforestation scheme.

Attached at Page_160 (i) & 160 (ii)

(v) Certificate from Competent authority regarding Suitability of area identified for compensatory afforestation and from management point of view. (to be signed by the concerned Deputy Conservator of forest).

Attached at Page_164

11. Site inspection report of the DCF (to be enclosed) especially High-lighting facts asked in Col. 7(ix,xii), 8 and 9 above:

Attached at Page__141

12. Division / District profile:

(i) Geographical area of the district.

Division =1503 Sq. Km.

District =6522 Sq. Km.

(ii) Forest area of District.

Division =1103 Sq. Km.

District =2437 Sq. Km.

(iii) Total forest area diverted since 1980 with number of cases:

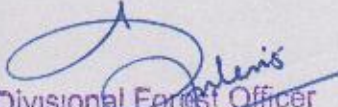
18 nos. Cases, 99.5423 ha

(iv) Total compensatory afforestation stipulated in the District/ division since 1980 up till now.

(a) Forest land including penal compensatory Afforestation: 251.738 Hact.

(b) Non forest land.

NIL


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(v) Progress of compensatory afforestation as on (date) up to 31-03-2021.

(a) Forest land.

251.738 Hact.

(b) Non-forest land:

NIL

13. Specific recommendation of the DCF for acceptance or otherwise of the proposal With reason:

Recommended in the interest of local inhabitants of Pangi Valley, State and Nation.

However 3929 Nos of trees above 30 cm at FRL of different species and class are involved. But the Compensatory Afforestation $211.842 \times 2 = 423.68$ ha is proposed amounting to Rs. 12,34,00,104/- (Rupees Twelve crore Thirty Four lac One hundred Four only) as well as the Net Present Value amounting to Rs. 31,61,52,808/- (Rupees Thirty One Crore Sixty One lac Fifty Two thousand and Eight hundred Eight only) is calculated.

Place: Chamba.

Date: 29-04-2022.

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