

To

The Divisional Forest Officer,  
Forest of Mandi (HP).

**Subject: - Diversion of 0.8738 ha of Forest Land in favour of Suket Hydro 75/11 Tarna Hill Mandi (HP) for the construction of Suket Small Hydel Project 1.0 MW on Suketi Khad, within the Jurisdiction of Mandi Forest Division, Distt Mandi, Himachal Pradesh.**

**Online Proposal no FP/HP/HYD/40895/2019-reg.**

**Ref. FC/HPB/01/47/2021 dated 04/05/2024, Sub-Office, Shimla (Regional Office, Chandigarh) Ministry of Environment, Forest and Climate Change.**

Sir,

This is with reference to the subject cited above. In this context we are submitting point wise reply/comments from DoE Government of Himachal Pradesh to the EDS raised by MoEF&CC, Gol as under: -

Sr. No.	Observation	Reply/Comments (DoE HP Govt)
1.	The cumulative impact assessment and carrying capacity studies of the river where Hydro-Electric Projects are Proposed must be Completed in time bond manner.	Gol vide office letter no.- 11013/1/2013-IA-I dated 05-02-2015 (copy enclosed) directed that river carrying capacity will be conducted under the aegis and supervision of MoEF&CC and studies which were awarded or in process of awarding be handed over to MoEF&CC and requested GoHP to transfer all relevant files to MoEF &CC. in line with above, GoHP vide letter no- HPDoE/CE(Energy)/Satluj basin/2015-3888-96 dated 29-07-2015 handed over all the relevant records in original related to CEIA studies of various river basin in H.P. to Gol, MoEF&CC. wherever the state assistance is required ,it has and will continue to be provided
2.	The Small hydro Power Projects (25MW) of total 200 MW capacity (Cumulative) may be permitted in the river basin, based on hydro electrical potential study done by the ministry of Power, Govt of India without insisting on individual river basin study.	The project below 5 MW are not there in the list of Central electricity Authority (CIA) website and report has been thoroughly reviewed and same is attached.
3.	A committee consisting members from MoEF&CC, MoJS, MoP state Govt. and	The project identified by IPP's i.e. under self-identified site's/Identified

	expert institution may be constituted for framing Standard Operation Procedure (SOP) for development of Small hydro Power Projects in Eco-friendly manner. List of SHP may be finalised by the state Govt. In view of any court order/Policy w.r.t. construction of SHP's/HEP'S in the river basin.	category. After confirming the proposal with respect to the policy guidelines these proposals were scrutinize with regards to overlapping issues with the already allotted Projects. After fulfilling the requisite criteria these projects will allotted to the IPP's. the Hydro Electric Project are allotted by the State Govt. as per the norms and standard SOPs followed by Swaran Jayanti Energy Policy.
4.	The cumulative impact assessment and carryings capacity to the whole river basin will include the finalized list of SHPs along with all other proposed/existing HEP's in that particular river basin.	The current CIA&CCS of the Beas Basin including only Hydroelectric Projects With a capacity above 5 MW. However, if the study is expended to include all HEP's a comprehensive list will be prepared. it is again submitted that to such a study, falls under the preview of the MoEF&CC, GoI

This is for your kind information and necessary further action at yours end please.

Yours Sincerely

Small Hydel project Suket 1.0 MW

**For Suket Hydro Electric  
Power Project**  
Auth. Signatory

**Prop.**



**DIRECTORATE OF ENERGY  
GOVERNMENT OF HIMACHAL PRADESH  
MC PARKING BUILDING, 2<sup>nd</sup> FLOOR,  
NEAR TUTIKANDI CROSSING SHIMLA-171005**

**Tel No: 0177-2673552, Fax No: 2673553, Email: [dir.doehp@nic.in](mailto:dir.doehp@nic.in), [ceenergy09@gmail.com](mailto:ceenergy09@gmail.com)**

**No. HPDOE/CE(Energy)/Himurja /2024- 676864**

**Dated : 20/09/2024**

**From**

The Director (Energy),  
Government of Himachal Pradesh

**To**

M/s Suket Hydro  
C/o Mohan Singh Thakur  
75/11, Tarna Hill Mandi, 175001, HP.

**Subject: Diversion of 0.8738 ha of forest land in favour of Suket Hydro 75/11 Tarna Hill Mandi, HP for the construction of Suket Small Hydro Project on Suketi Khad (1.00 MW), within the jurisdiction of Mandi Forest Division, District Mandi, Himachal Pradesh. (Online Proposal no FP/HP/HYD/40895/2019)-reg.**

Sir,

This is in reference to your letter no. SHPS/EDS/MoEF/0012/24 dated 30.07.2024 vide which the comments were sought from this office in line with the observations/EDS raised by MoEF & CC, GoI vide their letter dated 04.05.2024, As such, I am directed to enclose herewith the point wise comments as under:-

Sr. No	Observations	Comments
1.	The cumulative impact assessment and carrying capacity studies of the River where hydro-electric projects are proposed must be completed in time bound manner.	GoI vide office letter no-11013/1/2013-IA-I dated 05.02.2015 ( <b>Copy enclosed</b> ) directed that river Carrying Capacity will be conducting under the aegis and supervision of MoEF & CC and studies which were awarded or in process of awarding be handed over to MoEF & CC and requested GoHP to transfer all relevant files to MoEF & CC. In line with above, GoHP vide letter no-HPDoE/CE(Energy)/Satluj basin/2015-3888-96 dated 29.07.2015 handed over all relevant records in original related to CEIA studies of various river basin in H.P to GoI, MoEF & CC. As such, now the matter of taking up further studies pertains to the MoEF & CC, GoI. Wherever the state assistance is required, it has been and will continue to be provided.
2.	The small Hydro Power Projects (25MW) of total 200 MW capacity (cumulative) may be permitted in the river Basin, based on Hydro Electrical potential studies done by the Ministry of Power, Govt. of India, without insisting on individual river basin study.	The projects below 5 MW are not there in the list of Central Electricity Authority (CEA) Website and report has been thoroughly reviewed and same is attached as <b>Annexure-A</b> .




3.	A committee consisting members from MoEF & CC, MoJS, MOP, State Govt. and Expert institutions may be constituted for framing Standard Operational Procedure (SOP) for development of small Hydropower projects in Eco-friendly manner. List of SHPs may be finalized by the State Govt. in view of any court order/policy w.r.t construction of SHPs/HEPs in the River Basin.	The projects identified by IPPs i.e. under self Identified sites/identified category. After confirming the proposals with respect to the policy guidelines these proposals were scrutinized with regard to overlapping issues with the already allotted projects. After fulfilling the requisite criteria these projects will be allotted to the IPPs. The Hydro Electric Project are allotted by the State Government as per the norms and standard SOPs followed by Swaran Jayanti Energy Policy.
4	The Cumulative impact assessment and carrying capacity of the whole river basin will include the finalized list of SHPs along with all other proposed/existing HEPs in that particular river basin.	The current CIA & CCS of the Beas Basin includes only Hydroelectric Projects (HEPs) with a capacity above 5.0 MW. However, if the study is expanded to include all HEPs, a comprehensive list will be prepared. It is again submitted that to such a study, falls under the purview of the MoEF&CC, GoI.

Further as per the recommendation of CIA&CC study of Beas basin, it is submitted that there is no specific recommendation in respect of Suket Hydro project (1.00MW) given in the report.

This is for your information and further necessary action in the matter.

Yours faithfully,

DA:-As above

  
Chief Engineer (Energy),  
Directorate of Energy, GoHP.

## **2.5.2 RIVER PROFILE**

### **2.5.2.1 BEAS RIVER**

River Beas has its origin In the Southern face of Rohtang Pass in Himachal Pradesh and its entire catchment lying in Himachal Pradesh is hilly whereas small portion in uplands of Punjab is plain. The river gradient is fairly steep in initial reaches and the river meanders down in easterly direction through hilly country. On meeting Shiwalik hills the river sweeps sharply northward and bends round the base of the hills taking southerly direction. The main tributaries of river Beas are Parbati, Manalsu, Sarvari, Phojal, Uhl, Binwa Khad, Rana Khad, Neogal, Baner Khad, Gaj, Allain, Duhagan, Pakhnoj & Sainj. The catchments of most of the tributaries apart from mam Beas are snow/glacier fed.

The river Beas originates at an altitude of 4870 m. above m.s.l. and flows through about 370 kms. before meeting the river Sutlej in the plains of Punjab at Harike at an elevation of about +220 m. giving an average bed fall of about 12.5 m./km. of the river course. Similarly, the average drop in elevation of the tributaries in these river courses varies from a minimum of about 50 m/km. to a maximum of about 219 m/km. of river length. It is observed that all the tributaries are suitable for developing run-of-the river type schemes at sites where the water availability is generally good and also suitable head is available. From the distribution of water in various months of the year, it is seen that out of the total annual yield of the river in a dependable year, about 80% of water flows during the period from April to September and the balance about 20% in the months of October to March and of the above the yield during monsoon period alone is about 70%, From the pattern of flows, it is evident that in order to get maximum benefits, it is essential that storages preferably in higher reaches be provided so as to take maximum advantage for potential development by regulation of waters.

The Beas river along with its tributaries, is one of the eastern rivers in terms of the Indus Waters Treaty. Under the treaty, the eastern rivers can be fully developed without any restriction on the storage of waters etc. From the study of Survey of India sheets it is seen that the Beas or its tributaries generally do not appear to give much suitable sites for development of storage. One of the attractive possibilities for constructing a storage on the main Beas has already been utilised near Pong where about 6900 m.cu.m. of live storage has been



provided. The Parbati river, a major tributary also appears to afford a possibility for providing a small storage at an elevation of +3520 m. which could give a storage of about 350 m.cu.m. (Live) by constructing about 170 m. high dam.

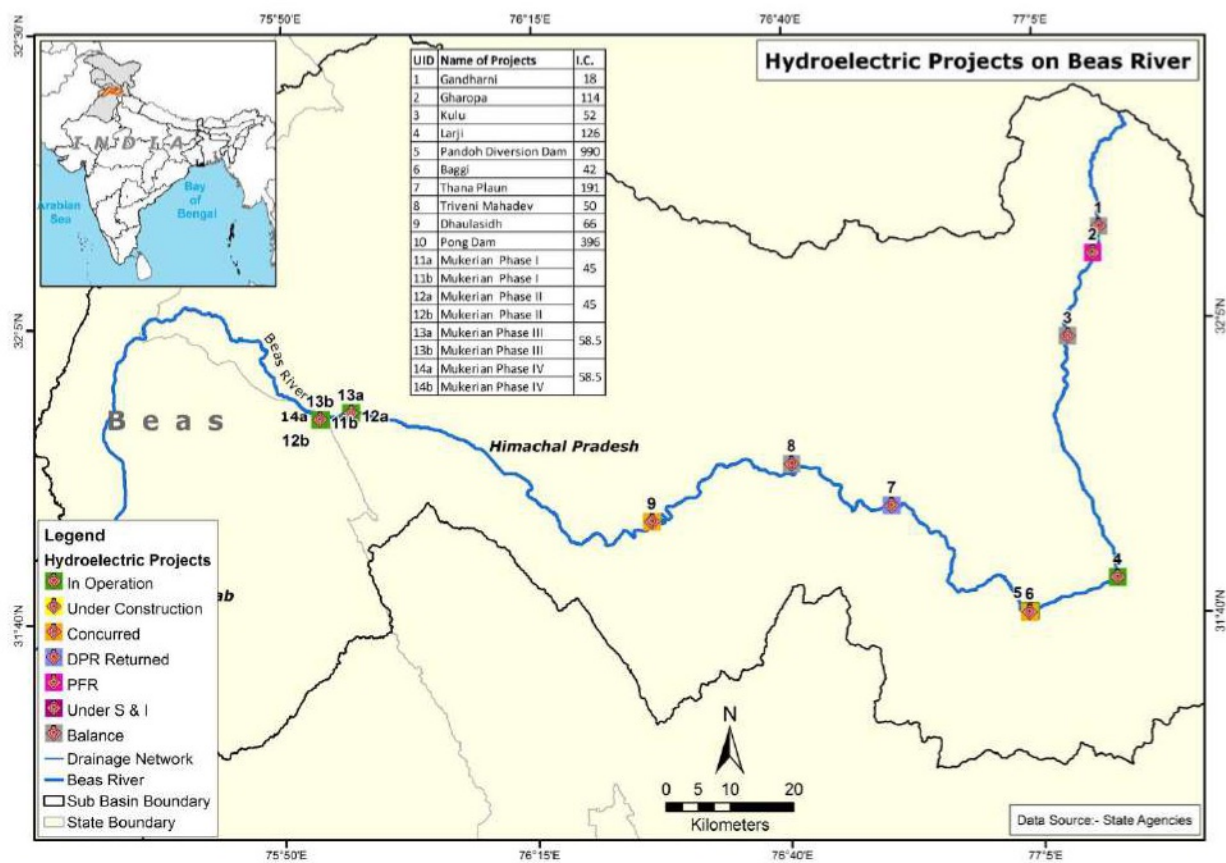
In the case of tributaries except in respect of the Parbati where the high head available in the reaches of the river along with the storage mentioned above has the possibility for development of three schemes with a total firm power of about 392 MW and maximum economic installation of 1035 MW, all other river reaches on the tributaries feasible of potential development have been identified wherever possible for medium size hydroelectric schemes of run of river type, with gross head ranging between 53 m. to 1450 m. and power ranging from 3 MW to 168 MW firm. As would be seen from the details of the schemes identified, described hereafter, most of the schemes lie in the upper part of the river basins. The Beas river appears to afford possibility of economic power development only in the upper reaches viz upto Pandoh township after which, firstly, attractive head fall which is essential for any hydro development is not available & secondly almost entire waters of the Beas have been diverted into Beas-Sutlej link and, therefore, development of river reaches is not possible upto Dera Gopipur township' After Dera Gopipur, the river reach upto Pong spreads out considerably, thereby making it attractive for development of a storage.

List of hydroelectric project on Ravi River is given in **Table 2.26** and their geographical location is shown in **Figure 2.71**.

**Table 2.26** List of Hydroelectric Project on Ravi River

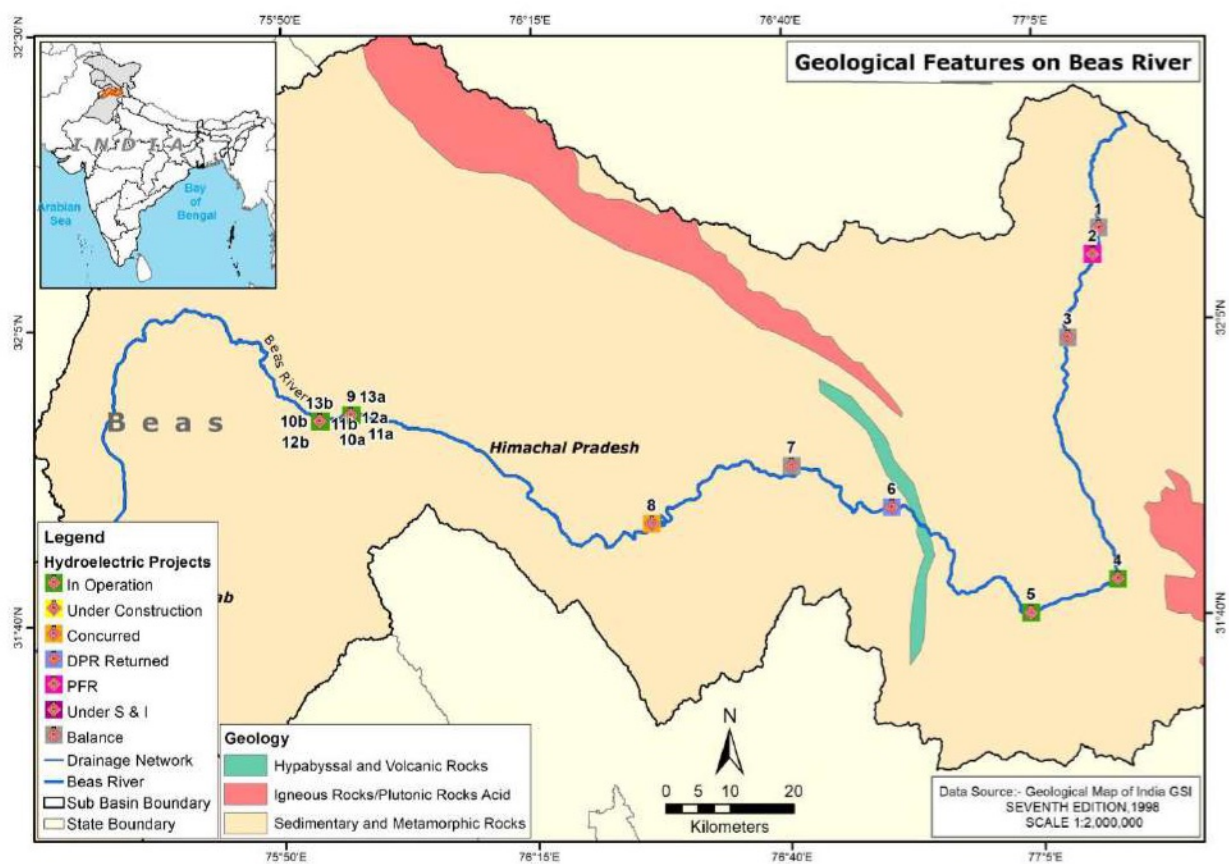
UID	Project Name	State	I.C (MW)	Status
1	Gandhrani	Himachal Pradesh	18	Balance
2	Gharopa	Himachal Pradesh	114	PFR
3	Kulu	Himachal Pradesh	52	Balance
4	Larji	Himachal Pradesh	126	In Operation
5	Pandoh Diversion	Himachal Pradesh	990	In Operation
6	Baggi	Himachal Pradesh	42	Concurred

7	Thana Pulaon	Himachal Pradesh	191	Concurred
8	Triveni Mahadev	Himachal Pradesh	50	Balance
9	Dhaultasidh	Himachal Pradesh	66	Under Construction
10	Pong Dam	Himachal Pradesh	396	In Operation
11	Mukerian I	Himachal Pradesh	45	In Operation
12	Mukerian II	Himachal Pradesh	45	In Operation
13	Mukerian III	Himachal Pradesh	58.5	In Operation
14	Mukerian IV	Himachal Pradesh	58.5	In Operation



**Figure 2.71 Hydroelectric Project on Beas River**





**Figure 2.72 Geological features on Beas River**

### 2.5.2.2 BEAS TRIBUTARIES RIVER

Manalsu is the tributary of Beas river which also known as Seri nallah in its upper reaches and meets the Beas river.

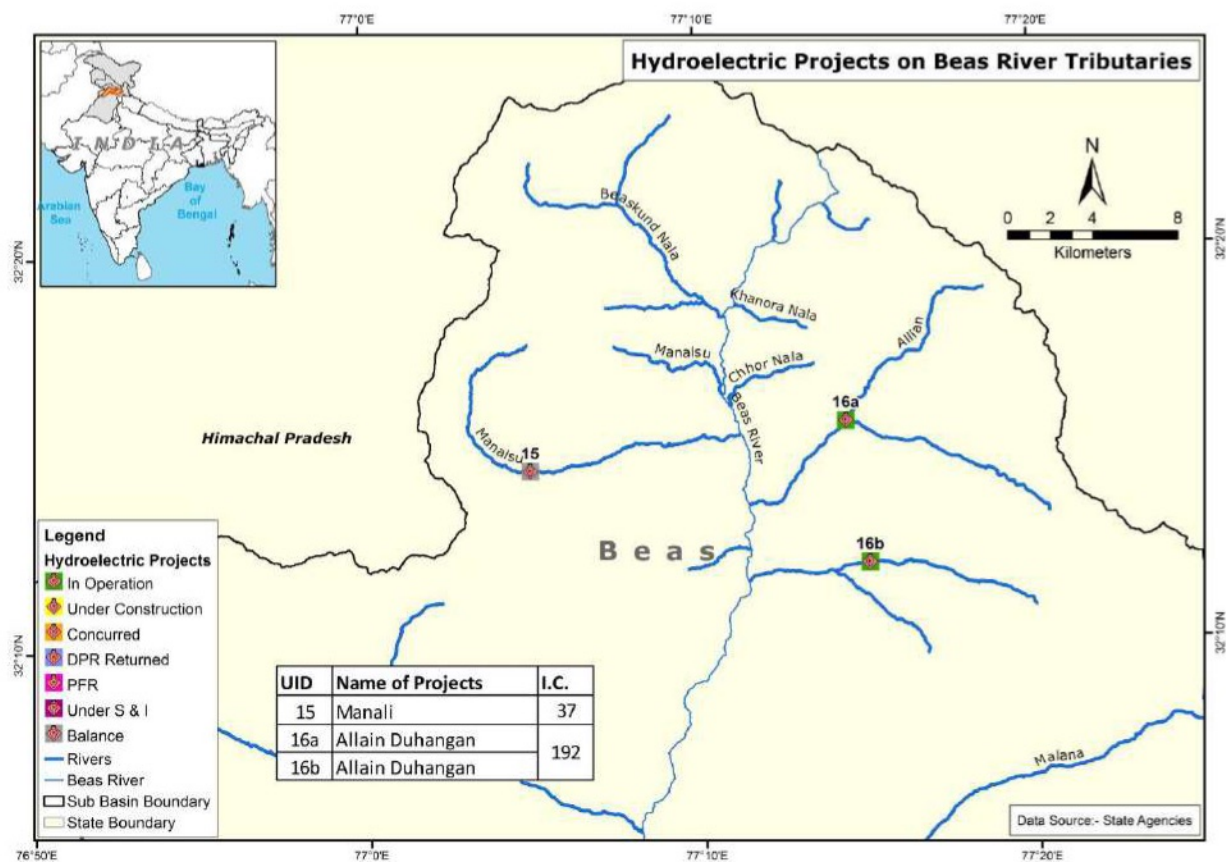
Allain Nallah is one of the tributary of Beas river meeting Beas from left about 3 kms. downstream of confluence of Manalsu nallah. Allain nallah has a steep gradient from its origin.

List of hydroelectric project on Ravi River is given in **Table 2.27** and their geographical location is shown in **Figure 2.73**.

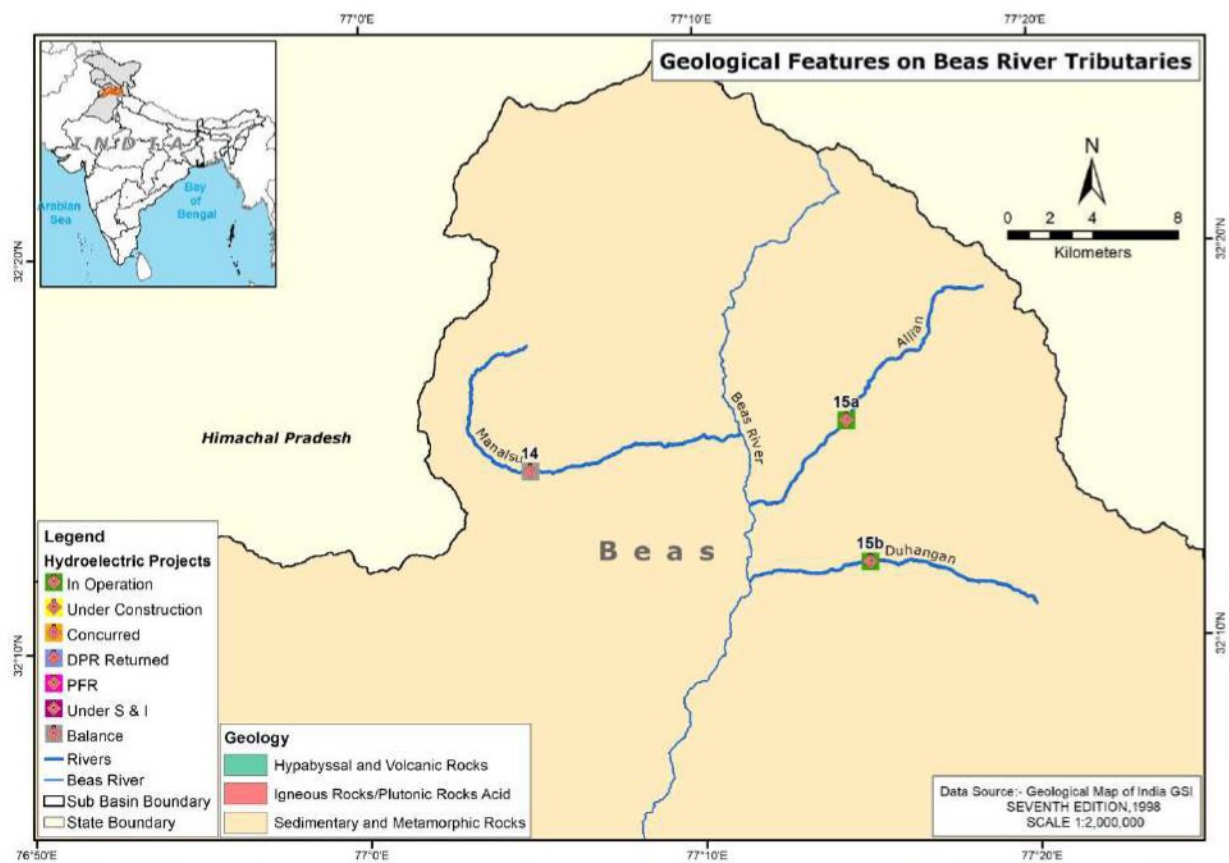
**Table 2.27** List of Hydroelectric Project on Ravi River

UID	Project Name	State	I.C (MW)	Status
15	Manali	Himachal Pradesh	37	Balance
16 a	Allain Duhangan	Himachal Pradesh	192	In operation
16 b				





**Figure 2.73 Hydroelectric Project on Beas River Tributaries**



**Figure 2.74 Geological features on Beas River Tributaries**



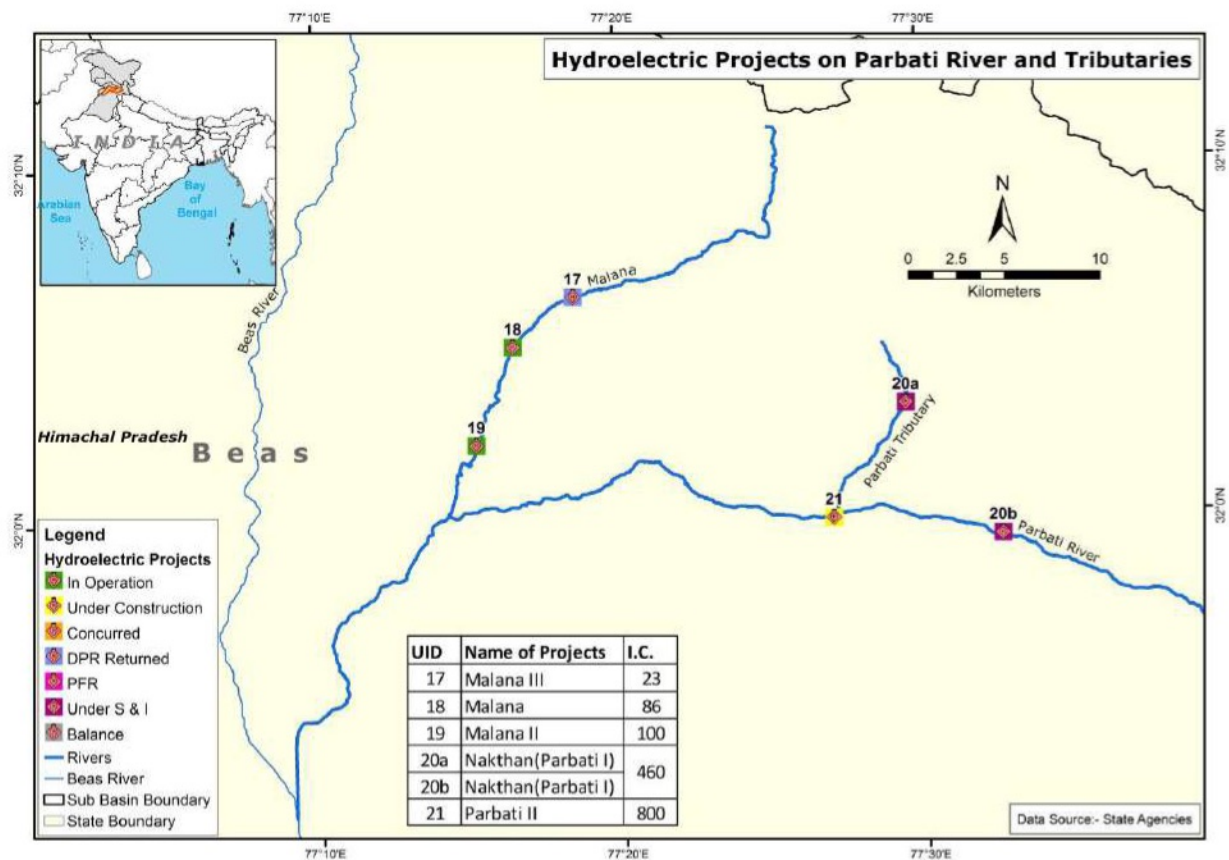
### 2.5.2.3 PARBATI RIVER

Parvati River is a river in the Parvati Valley in Himachal Pradesh, northern India that flows into the Beas River at Bhuntar, some 10 km south of Kullu. It rises from the Man Talai Glacier below the Pin Parbati pass and flows in a gradual curve from north-northwest to west-southwest past the important temple town of Manikaran.

List of hydroelectric project on Parbati River is given in **Table 2.28** and their geographical location is shown in **Figure 2.75**.

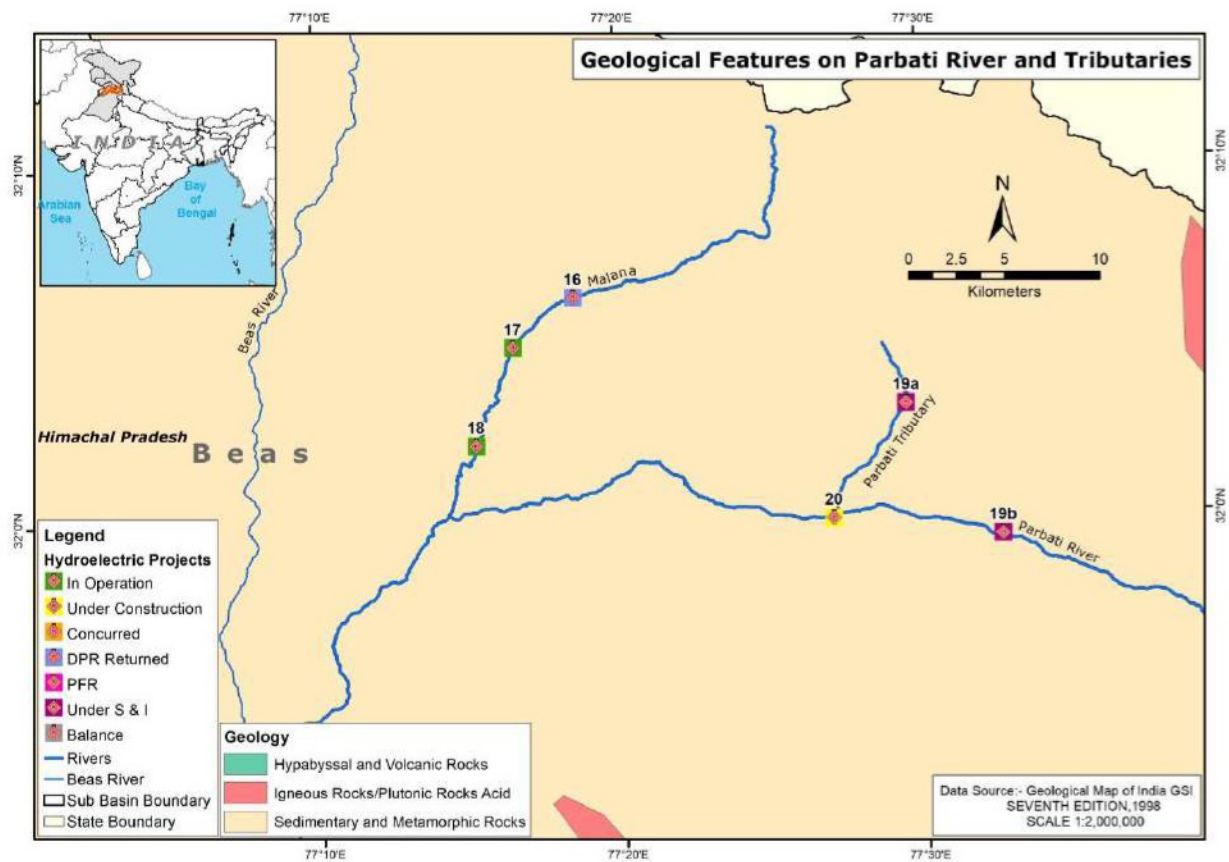
**Table 2.28** List of Hydroelectric Project on Parbati River.

UID	Project Name	State	I.C (MW)	Status
17	Malana III	Himachal Pradesh	23	Balance
18	Malana II	Himachal Pradesh	100	In Operation
19	Malana	Himachal Pradesh	86	In Operation
20 a	Nakthan	Himachal Pradesh	460	Under S&I
20 b	Nakthan			
21	Parbati II	Himachal Pradesh	800	Under construction



**Figure 2.75 Hydroelectric Project on Parbati River**





**Figure 2.76 Geological Features on Parbati River**

#### 2.5.2.4 SAINJ RIVER & TIRTHAN RIVER

The V-shaped Sainj Valley rises from the lower ranges of the main Himalaya to the east of Kullu. The Sainj River flows past a series of interlocking spurs and widens as it travels southwest to join the River Beas at the small village of Larji. The Valley is around 90 sq. kms in area and approximately 35 KMs from Kullu district headquarters. It is a designated wildlife sanctuary encompassing the villages of Shakti and Maror.

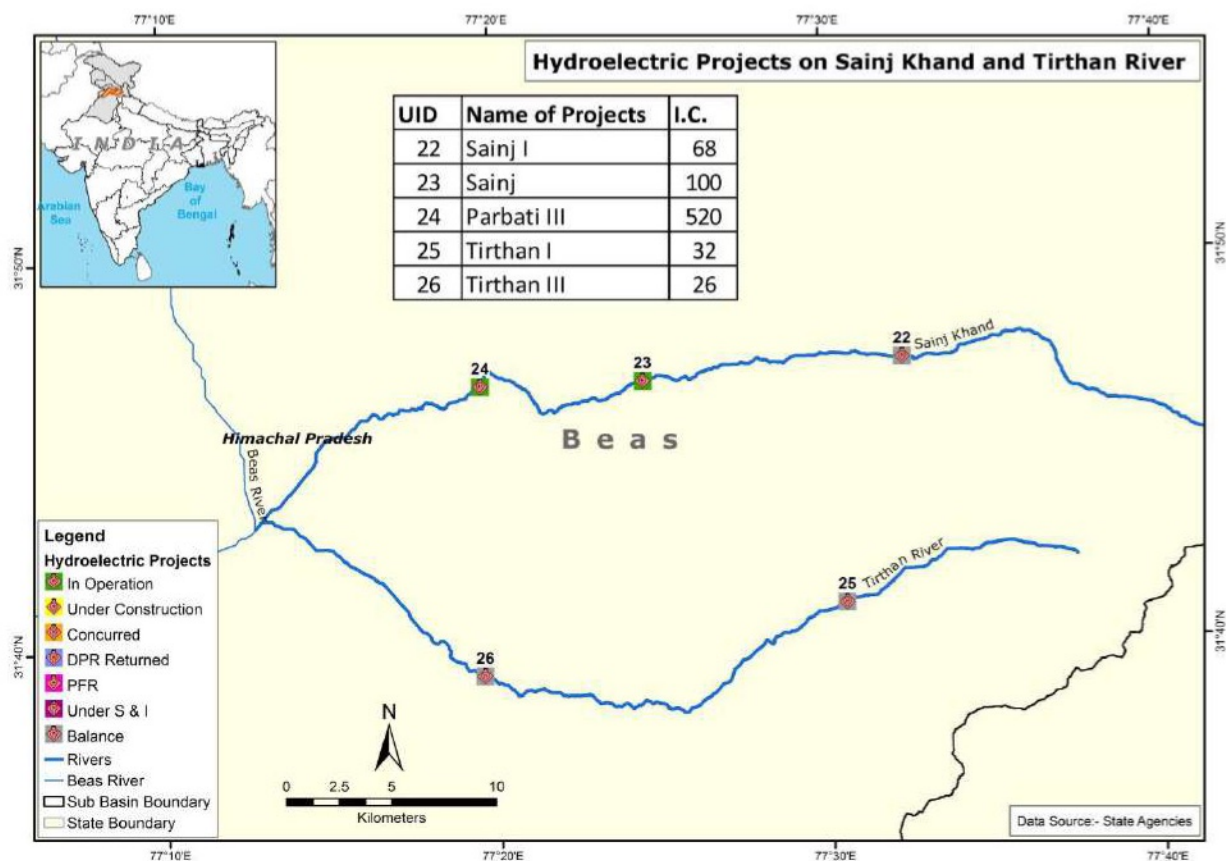
##### TIRTHAN RIVER

Tirthan River is one of the most beautiful rivers of Himachal Pradesh. It has its source in the Himalayan glaciers and is an important tributary of the magnificent Beas River. In fact, this very river has given rise to the famous Tirthan Valley. Tirthan River comprises clear and cold waters that arrive fresh from the glaciers. Anglers regard this river to be a virtual paradise. it is bordered by huge Himalayan Ranges on eastern, southern and northern parts. The picturesque view of its snow-clad mountains greatly attracts tourists from around the globe.

List of hydroelectric project on Sainj & Tirthan River is given in **Table 2.29** and their geographical location is shown in **Figure 2.77**.

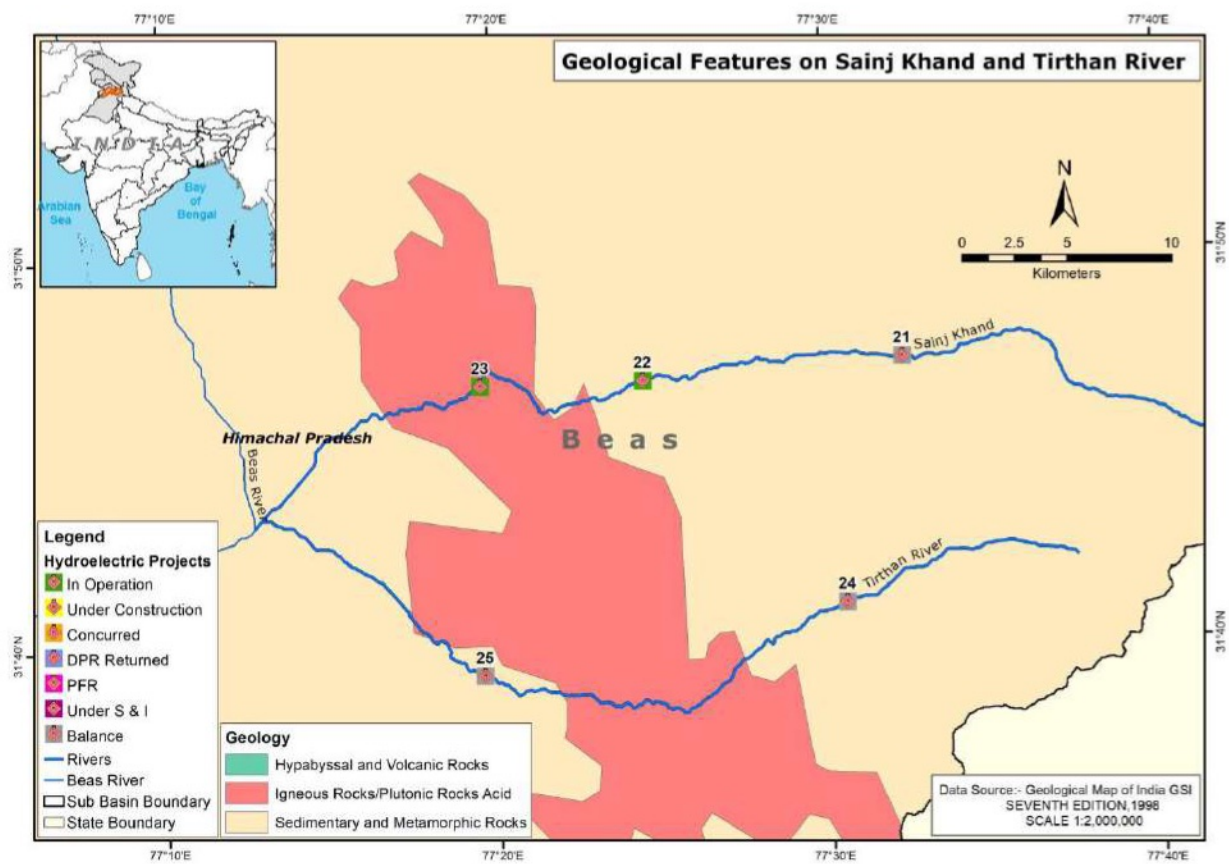
**Table 2.29** List of Hydroelectric Project on Sainj & Tirthan River

UID	Project Name	State	I.C (MW)	Status
22	Sainj-I	Himachal Pradesh	68	Balance
23	Sainj	Himachal Pradesh	100	In Operation
24	Parbati III	Himachal Pradesh	520	In Operation
25	Tirthan I	Himachal Pradesh	32	Balance
26	Tirthan III	Himachal Pradesh	26	Balance



**Figure 2.77 Hydroelectric Project on Sainj & Tirthan River**





**Figure 2.78 Geological Features on Sainj & Tirthan River**

### 2.5.2.5 UHL RIVER

Uhl is a Himalayan stream which is part of the watershed of Beas River. The river originates at the Thamsar Glacier in the Dhauladhar range of the Himalayas, flows through the Uhl valley crossing Bada Gran and Barot, both villages in the Uhl valley. In the lower part of its course, it is also known as Tiun Nala and the Uhl valley is known as Chohar valley. After passing the Chohar valley, Uhl meets the Beas river 5 km downstream from Pandoh. Uhl originates from a lake formed by the Thamsar Glacier in higher Dhauladhar range. The lake is very close to the Thamsar Pass, which lies on the trail to Bada Bhangal. From Thamsar, where it starts as a small mountain stream, Uhl reaches Palachak, a temporary settlement on the Uhl, where a tributary joins it from the right bank. 18 km downstream at Barot, Uhl is joined by Lumba Dugh from the left bank. Lumba Dugh also originates in the East of Dhauladhar range and flows along Luhardi before meeting Uhl.

On the left bank of the river Uhl in Kamand (12 km from Mandi town) permanent campus of Indian Institute of Technology Mandi is located, spread over 520 acres (2.1 km<sup>2</sup>) of land

List of the projects and their geographical locations on Beas River & its tributaries/sub-tributaries (Beas, Malana, Allain, Sainj, Uhl, Parbati, Gaj Khad, Tirthan & Rana Khad) is shown in **Figure 2.79** & **Table 2.30**.

**Table 2.30** List of Hydroelectric Project on Sainj & Tirthan River.

UID	Project Name	State	I.C (MW)	Status
27	Shanan & Extention	Himachal Pradesh	110	In Operation
28	Bassi	Himachal Pradesh	66	In Operation
29	Uhl III	Himachal Pradesh	100	Under Construction

(20)  
Bishwanath Sinha I.A.S.  
Joint Secretary



सत्यमेव जयते

Dy. No. 53123775  
Dated 9-2-15

O/o the Chief Secretary  
Dy: No. ....  
Dated: .....

Government of India  
Ministry of Environment, Forests & Climate Change

✓ ACC (ENV)  
✓ ACC (H.H.)  
7-2-15

Dated: 5<sup>th</sup> February, 2015

D.O. No J-11013/1/2013-IA-I

53127008

12/2/2015

Subject: River Basin carrying capacity and cumulative impact studies (CC & CIA) - regarding

Dear Sir,

You are aware that river carrying capacity studies will be conducted under the aegis and supervision of this Ministry. It has also been decided that the studies which have already been awarded and are in the process of awarding, will also handed over to this Ministry by CWC and other state governments concerned.

2. I request you to kindly arrange to transfer the relevant files to this Ministry at the earliest.

Raymond

Yours sincerely,

(Bishwanath Sinha)

Shri. P. Mitra, IAS  
Chief Secretary  
Government of Himachal Pradesh  
Room No. E-201-B  
Ellerslie Building  
Himachal Pradesh Government Secretariat  
Shimla - 171 002  
Fax No. 0177- 2621813

9/2/15

SSC (H)

10-2-15