

Changing the Colours of Chenab



Narratives on hydropower
'development'
from Lahaul Valley

ABBREVIATIONS

CEIA	<i>Cumulative Environment Impact Assessment</i>
DOE	<i>Directorate of Energy</i>
EIA	<i>Environment Impact Assessment</i>
FRA	<i>Forest Rights Act</i>
HP	<i>Himachal Pradesh</i>
HPPCL	<i>Himachal Pradesh Power Corporation Limited</i>
HPPPCL	<i>Hindustan Powerprojects Private Limited</i>
HPSEB	<i>Himachal Pradesh State Electricity Board</i>
ICFRE	<i>Indian Council for Forest Research and Education</i>
J&K	<i>Jammu and Kashmir</i>
MoEFCC	<i>Ministry of Environment, Forest and Climate Change</i>
NOC	<i>No Objection Certificate</i>
PESE	<i>Panel of Environment and Social Experts</i>
SANDRP	<i>South Asia Network on Dams, Rivers and People</i>

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A Background: Chenab, the last frontier

In Himachal Pradesh's uninterrupted quest to lead the ambitious hydropower development mission in the Himalayas, the Chenab River Basin is the last frontier. In Himachal Pradesh (HP) and Jammu & Kashmir (J&K) alone, over 60 hydropower projects are under various stages of planning, construction and commissioning on this river basin¹. According to sources, the Chenab basin may soon be “home to the largest capacity of hydropower projects among all basins in India.”² Of the 60 projects, 49 hydroelectric projects are being planned or under construction within the state of HP. About 28 projects with a combined generation capacity of 5,800 MW (J&K and HP) are in advanced stages of obtaining clearances from the Environment Ministry³. In HP, the projects on Chenab fall in Chamba and Lahaul-Spiti districts.

Himachal Pradesh seeks to become the “*hydropower state of the country*” by making hydropower generation the “*principal and perennial source of revenue for the state*”⁴. The constant upscaling of its total identified potential is symbolic of the State government's hydropower enthusiasm. From 23000 MW in 2014, its newly identified potential has now been estimated at 27,436 MW. These numbers speak well of the State government’s allegiance to making profit from running water and its inclination “to reassess the possibilities for left hydro potential in all river basins” of the state.⁵

Table 1: Newly assessed capacity of Himachal Pradesh river basins

Name of the Basin	Capacity MW
Yamuna	840
Satluj	13,332
Beas	5,995
Ravi	3,237
Chenab	4,032
Total Potential	27,436

Source: Economics and Statistics Department, GOHP16

The other side of this story is that over the last few years, evidence documented by government and quasi government bodies and more by the 'local communities' and environment groups have highlighted multiple issues around socio-cultural, political

and environmental ill effects of Hydropower development. Deforestation, landslides, soil erosion, damage to apple orchards, farms and roads, cracks in houses, disappearing springs and rivers has become characteristic of regions around the hydro-projects as a result of blasting for the diversion tunnels and other heavy construction activities. Concerns, and in many districts agitations, are brewing as a result of people's negative experiences of Hydropower development in the state. This holds true not just for Himachal, but the entire Himalayan region.

In Himachal, fresh evidence has emerged from the Satluj Valley where close to 22 large and over 60 small projects are under investigation, under construction, operational and in the process of allotment.⁶ On the directions of Ministry of Environment, Forest and Climate Change (MoEFCC), in 2014, Himachal government (GoHP) had commissioned a Cumulative Environment Impact Assessment (CEIA) study of hydro-projects in Satluj valley⁷. Thereafter, a shoddy and partial CEIA study conducted by the Indian Council of Forestry Research and Education (ICFRE) further fuelled the existing local opposition. This became evident in the public consultations conducted on 12th December 2014 in Kinnaur where hundreds of residents articulated sharply, their critique of the study as well as Hydro development in the Satluj valley. The failure of the appointed consultants to engage in any kind of dialogue with the residents during the entire study period exacerbated the resentment. The residents termed the report as biased and pro hydro.⁸

Following this failure on part of the Directorate of Energy of GoHP (DoE) and ICFRE, consequently an independent Panel of Environmental and Social Experts (PESE) was appointed to make recommendations to better assess the cumulative impacts of Sutlej valley hydro-projects. The PESE released its report in October 2014. Quite ironically, even a study commissioned by the government could not overlook the adverse risks of hydropower on local ecology and livelihoods. An excerpt from the PESE study reads:

"...various meetings clearly indicate that the apprehensions of the people about the ill effects of the projects have not been addressed at all. People have lost faith in the

system and their anger is justified to a large extent, as the government has done nothing which may indicate that it feels for the people...”⁹

The analysis of unaccountability of hydropower ventures in HP can be extracted from many such research studies. The recent most is a 2014 study by Alexander Erlewein, a geographer from the University of Heidelberg, Germany. His study draws attention to the massive scale at which hydro-projects are being irresponsibly laid out in HP, and attributes it to the poor quality of project level environment impact assessment (EIA) studies carried out by the project proponents.

“.....the Sutlej River will be diverted into a system of tunnels and reservoirs, right from its entrance into Indian territory at an altitude of around 3000 m, down to the large reservoir of the Bhakra Dam at approximately 500 m. Only a few short stretches of the river will be preserved in their current form. The rivers Beas, Ravi and to a lesser extent Chenab, as well as several tributaries are going to experience similar transformations.”¹⁰

The hydropower expansion in the state continues unabated today even while memories from 2013 Uttarakhand and Kinnaur disaster are still fresh. The question hovering over hydro development in the Himalayas today, in the wake of flash floods and earthquakes, is whether this is sustainable for landscapes which are already fragile and disaster prone. It seems certain that the impact of a disasters like floods, are multiplied with large scale construction activity. But there is a high possibility that the unplanned hydropower development may be contributing in triggering these events. Trivializing the diverse impacts on ecology, agriculture, water availability, geology, seismicity as well as the spiritual and religious significance of rivers is justified in the name of ‘development and national interest’ for mere economic gains.

Familiar with the hydropower 'development' experiences in other basins and districts, especially Kinnaur; Lahaulis¹¹ are beginning to express concerns about the uneven development these projects are capable of. Many are anxious, some are staging protests and boycotting surveys and consultations while a few equate hydropower with

prosperity. With a capacity of over 27000 MW, the Himachal Pradesh Government has allotted 37 projects in ecologically sensitive, high altitude Lahaul-Spiti District. In 2012, Himdhara compiled a report on the 300 MW Jispa Hydropower project¹². Some major developments have taken place since then. Through this report, we are attempting to



The spiritually revered Chandra and Bhaga confluence at Tandi village

share opinions we heard on ground, people's opinions about the upcoming projects and the changes being apprehended because of Hydropower development. The data was collected from the 10 villages on Chenab basin where hydropower projects are in the planning stage.

The Sangam in the times of hydropower

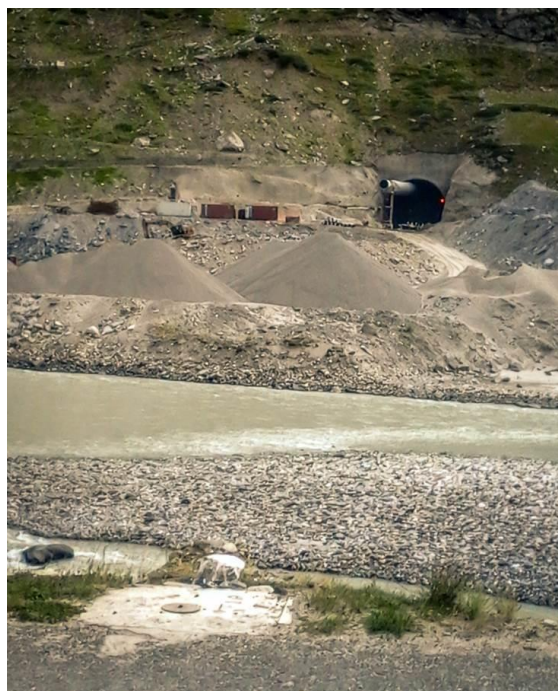
The Chandra river originates from the south eastern side of *Baralacha la* (Baralacha pass) and the Bhaga from *Suraj Tal or Lake of the Sun*, a small mountain lake at the crest of *Baralacha la* in Lahaul-Spiti. At village Tandi, both the rivers converge to form Chenab or Chandrabhaga which there onwards flows through the Lahaul valley, parts of Chamba, J&K; finally entering Pakistan. *Garsha, Heart land of Dakinis*, a book on the rich spiritual legacy and sacredness of Lahaul valley very succinctly captures the

spiritual and religious significance of the *Sangam*.

This confluence is regarded as a holy place to cremate the deceased or disperse their ashes, a charnel ground very sacred to Hindus. For Buddhist yogis, it has been considered a place of power also due to the energy of the currents coming together, enhancing special meditations aimed at uprooting all forms of self concern and grasping. In his biography, the great yogi Rangrik Repa (17th century) narrates how, as he reached this point of his pilgrimage, he remained on that spot for several hours in a state of total contemplative awe.¹³

The same Chandrabhaga (Chenab) is today being assigned as a tool for economic growth alone and its worth reduced to megawatts.

The reason why the Lahaul valley remains relatively untouched by hydropower so far can be attributed to its difficult topography, harsh weather conditions, and most essentially the shortest access in the form of snow bound Rohtang Pass. Perched at 3978 metres above sea level, the Rohtang Pass connects Lahaul to other parts of India and remains closed and unpassable¹⁴ for six to seven months- rendering the valley inaccessible. A few residents get locked in for the remaining months and a few judiciously cross over to Kullu or Manali after performing rigorous agricultural work for half a year. Kullu, Manali and its adjoining villages and towns have become a second home, or referred to as the 'Summer Capital' by the Lahauli's. They have in many ways become part of the settled community.

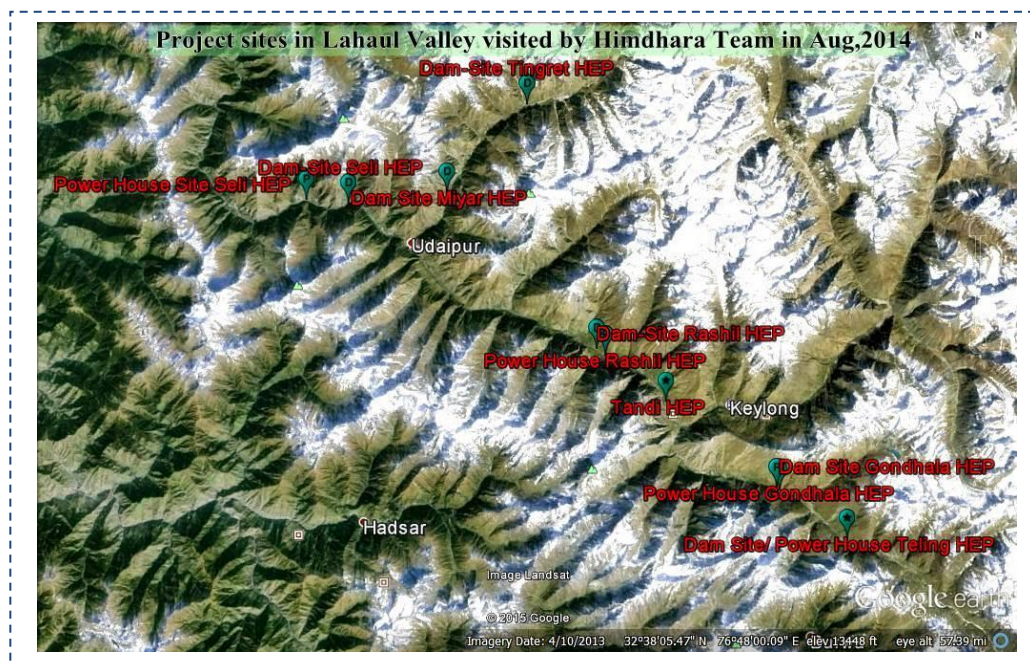


The ongoing construction at Rohtang Tunnel's northern end

It's inaccessibility and location has shaped a distinct demography, be it cultural,

spiritual, economic, and political; but these spheres simultaneously remain porous to the inflow of new information, knowledge, material, cash etc., thus constantly producing and reproducing the Lahauli landscape.

Nevertheless, in the pipe-line is the *window of opportunity*¹⁵ for the tribal population of Lahaul-Spiti and the strategically crucial region of Ladakh. The 8.8 km Rohtang Tunnel, being called a *tunnel of good hope*¹⁶ or an *engineering marvel*¹⁷, is supposedly the longest tunnel at this altitude and promises unhindered access to Lahaul the year around. This dream project of the Ministry of Defence claims to bring about economic prosperity by integrating the local and global market with Lahaul's 'rural' economy. It aims at a new economic and cultural shift through new trade and tourism avenues. It intends to end the isolation and gloom Lahauli's undergo for six months. The tunnel, which is under construction, will reduce the road distance between Manali and Keylong by 48 kms and travel time by four hours. After major cost overruns and many a delay due to 'geological surprises', all hopes are now set on 2017- the new deadline for the completion of the construction. While the two major political parties in the state have used the Rohtang Tunnel as a vote raking card claiming credit for initiating this project for Lahaul's development, a few locals perceive that this is a posture. *"It is clear that it's only for strategic purposes and to deal with the danger of a Chinese invasion. You*



[Narratives on Hydro Power development from the Lahaul Valley \(June 2015\)](#)

really think it's for our benefit?", an opinion we heard in Sissu, Lahaul – a village in close proximity to the Northern portal of the tunnel.

Some of the residents are anticipating overhauling the winter drudgery with the new physical mobility the tunnel would bring. Many are already speculating shifts in socio-economic, cultural and political structure of Lahaul. Many are worried about its implications; if the hydropower spate will intensify with the tunnel construction. *"Rohtang tunnel will bring both positive and negative changes. There will be prosperity but there will be a loss of culture too"*, added Tseten Dorje from Guskiar, a village close to Keylong, the District Headquarters.

Lahaul in the age of Hydropower

The Chenab flows for 130 Kms within the state, and out of its total catchment area of 61000 sq kms, HP contributes 7500 sq kms.¹⁸ The Chenab in J&K is already choked with hydro-projects like 660 MW Kiru, 560 MW Kwar and several others proposed in a cascade.¹⁹ As highlighted previously, within Himachal's 130 kms stretch, 49 hydro-projects are under different stages of implementation, most of these being in the Lahaul Valley. During our visit, apart from the main basin, we visited the Chandra, the Bhaga and the Miyar sub basins, where hydro- projects are proposed. Of all the project sites that we visited over a week, that of the Miyar project located in a picturesque valley seemed to be in the most advanced stage. Agriculture land has already been acquired, the Environment Clearance and Stage 1 Forest Clearance granted for this 120 MW project to be constructed by Hindustan Power Projects Private Limited (HPPPL).²⁰ (earlier named Moser Baer)

Resting comfortably next to the main road, and knitting simultaneously while grazing her cow was Bhim Dasi from Shakoli village. We probed her about the Miyar project but she was reluctant conveying there were better informed people who could give information. We persisted telling her that we wanted the opinion of the lay person, especially that of a woman. After much coaxing, she started with sharing that in 2013

around 10 families in Shakoli village, to which she belonged and was also the Dam site for the 120 MW Miyar project, had accepted compensation for the land acquired for the project. Initially, materially content with the compensation offered, many were now repenting their decision, she said. Post 2013, when a cloudburst shook Miyar valley, local perception about hydropower underwent a significant shift, she opined.

The cloud burst wreaked havoc and forced many families to helplessly witness their houses and livestock being swept away. As we travelled upstream the Miyar valley, we crossed several of these massive glacial nallahs (stream) that now streamed gently but the size of the boulders and debris on either side, the broken roads and dilapidated bridges, were evidence that these nallahs had swelled in anger not long ago.



The 2013 cloud burst caused widespread damage to property and livestock in Miyar valley

Bhim Dasi, narrating the story of 2 years ago when the tunnel testing for Miyar hydro-project began, added, “We have been through months of sleepless nights. They would start testing at odd hours, like 2 am in the morning and the windows would shudder with the impact of the blasting. Once the tunnel actually runs underneath my house, I cannot imagine how it would be then. It's going to be impossible to live in peace”, she spoke sceptically.

Later at Ghari village (located upstream) we coincidentally bumped into Bhim Dasi's husband. A school teacher himself, he reasoned people's failure to see through shallow promises of Miyar project authorities. Locals were bombarded with promises of effective water connectivity, mobile tower, hospital, school, employment etc. His son,

qualified as a Computer Engineer, is currently employed on daily wage as a technical staff at the Project's site office in Kukumseri, Udaipur Tehsil. For 120 MW Miyar hydroelectricity project, around 63.06 hectares of forest land will be diverted. No information exists on the nature of these forest and how the forest land acquired will be put to use by the project proponents.²¹

“We still don't know how and on what basis were NOCs granted by the Panchayat. The ones losing their land were never consulted”, added Bhim Dasi's husband. On the status of Forest Rights Act in the valley, and the mandatory consent of the gram sabha under the Act, he added, “We haven't even heard of Forest Rights Act. We don't know what those NOCs were given for. All we know is that decisions are made by those sitting higher up. No one asks us about the kind of development we want, and how having a dam could prove dangerous to our fields, houses and our lives.”

He also shared that the project authorities had outrightly refused to compensate families for ghaasni (grassland) by characterising it as forest land. Local reservation against this was brushed aside by stating that the compensation for grassland would be deposited with the Forest Department. “The fact that communities have user rights over forest land is not being taken into consideration. Our bringing the issue to the notice of District Revenue department was useless. Our plea was revoked with the same



Rajma sprawling in fields at Ghari village of Miyar valley

argument and without any mention of FRA”, he stated.

“For the company and the government, compensation is the solution. The same rehabilitation logic is applied to the recurrent flooding and cloudburst as well. After the 2013 cloudburst, they wanted

to rehabilitate us to Kukumseri. Our area is very sensitive and highly prone to landslides and glaciers.” remarked Jog Chand, an old farmer from Ghari village.

Rajma, peas, cabbage, cauliflower and potatoes were growing either in flat fields sprawled along the river side or in narrow and long winding terraces on craggy and precarious slopes like in Ghari. Women and migrant labourers from Bihar, Jharkhand and Nepal are crucial to Lahaul's agricultural economy- a view also voiced by Naresh, a young man from Chimret. Studying in Shimla and simultaneously preparing for the Indian Civil Services, like many others, Naresh too reflected on the once 'self sufficient' Lahauli society. “Earlier Ghehoon and Kathu (wheat and buckwheat) were locally grown. Even oil was locally prepared. Now these are fetched from the ration shop. Traditional crops have not just declined, they have disappeared.” he shared.

120 MW Miyar and 80 MW Tinget are the two major projects planned on the Miyar stream. We travelled all the way to Shukto village that borders Zanskar (J&K). People we spoke to in these areas expressed apprehensions about hydropower development and on being asked why, were quick to point out recurring floods, cloudbursts and avalanches as a reason. Apart from the Miyar project, the other two projects in Lahaul, which are in the advanced stages of planning and clearance are the 400 MW Seli, and 300 MW Jispa. But unlike the Miyar project, people in the affected villages around these two seemed well mobilised. Public opinion has been mostly against their construction. In Udaipur, the opposition against 400 MW Seli, another one by HPPPL remains strong.

We happened to witness a gathering at Madgran, a village located on the right bank of the Chandrabhaga. People had mobilised at the Panchayat building for a meeting with officials of the Department of Horticulture, GoHP. The size of the gathering made clear that not just was agriculture important for both men and women but that remaining in loop with the latest agricultural initiatives of the state government to make agriculture commercially successful and sustainable was essential for the people here. We used the occasion to talk about the Seli project and the women, who were present in large



Women gathered in Madgran for the agricultural meeting. Madgran is one of the villages to be affected by the Seli Project

numbers seemed forthcoming to share their opinions.

Mandasi was the first to respond spontaneously, "Where will we go if Seli hydro-project comes up? All our fertile agricultural land will be submerged. We have passed multiple resolutions in our gram sabhas opposing

the project. We haven't even given NOCs so far but our objections have been deemed invalid. We people are being fooled in the name of development."

Dharampal, a young farmer from Madgran spoke in Mandasi's support. "When the public hearing was conducted in 2011, the project authorities tried persuading us with compensation offers and Seli project's ability to boom Lahaul's economy". Admist such sky rocketing promises, their details of the affected population and villages were fuzzy. Environmental dangers ignored. In 2011, they reportedly submitted a memorandum to the Deputy Commissioner and the Chief Minister against the setting up of Seli hydroelectric project. Several rallies were staged in Udaipur with this demand.

"Our agriculture is entirely dependent on irrigation. The spring water is a source of drinking water not just for us but also for our animals. The Madgran nallah is our main source of irrigation water and close to 150 families are dependent on it. The pipelines of IPH(Irrigation and Public Health Department, GoHP) are well connected. Our drinking water and natural springs will be adversely impacted by the tunnel for Seli project. One cannot live without water, can one? Look what happened in Kinnaur?" asserted Mandasi referring to the drying up of the chashmas (springs) in tunnel affected areas which are the main sources of drinking water and irrigation in Himachal.

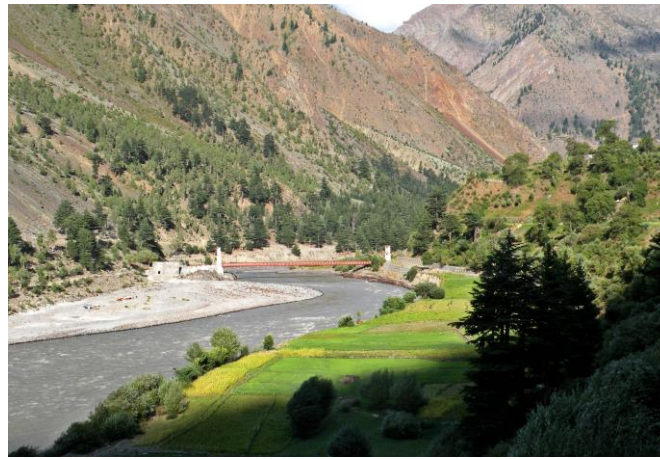


After interacting with the local women, we set out to Tindi village, close to Seli's dam site. About twelve families live in Tindi. A few kilometres ahead of Tindi, on the opposite side lay Salgran, the site identified for the project colony, and further ahead of Salgran was Seli's dam site. Around 25 bighas of land would be acquired for the project colony, shared Nand Lal, a resident of Tindi village. A total of ten families live in Salgran. The tunnel for Seli would run underneath Kurched village (Tindi Panchayat) located above Tindi. All in all, about 276.18 ha of forest land will be acquired for Seli.²²

As we write this, many national and local newspapers (in the month of March, 2015) routinely reported instances of snow storms and avalanches engulfing the entire valley.²³ Another instance reported by the Gram Yuva Sangthan²⁴ on a social media site on 19th March was of an avalanche and snow storm that hit Kurched and the area around Seli's dam site. The plan of then constructing a 400 MW hydro-project in such a seismically active, avalanche and landslide prone area is only likely to exacerbate the area's disaster potential. This also puts under scanner the viability and safety of the 'alternative(s)' proposed in the project design by Seli authorities which envisages underground construction of the maximum project components such as the power house.

Our visit to Lahaul also coincided with the peak vegetable season. Fields were dotted with men and women, dedicatedly plucking cauliflowers and peas, neatly packing them into boxes and then loading them onto trucks and jeeps. Water sprinklers placed

strategically in the fields, were doing their job, spinning in full force. When we arrived at Dorje's house in Salpat village of Tindi Panchayat (also to be affected by the Seli Project), we found cauliflowers piled up along the verandah, ready to be packed. Dorje spoke explicitly about people's



Agriculture fields of Salpat village that face threat of submergence

opposition to the Seli project in Salpat, and the panchayat's unwillingness to compromise. "About ten families in Salpat are in complete opposition. They will lose most of their agricultural land. On an average, the family landholding varies between 10 to 12 bighas, but some families merely have 2 to 5 bighas. For Seli project, around 65 bighas will be acquired out of 200 bighas- the total agricultural land in Salpat," he shared. The submergence of lower part of Salpat and that of grassland/grazing land was particularly spoken of by a former pradhan (chairperson of the Gram Panchayat) at Seli's (Environment Clearance) public hearing in 2011. The undue favours of the District Administration to the project developers by allowing blatant extraction of sand under Salpat bridge, and the imposition of fines in case locals were found transporting sand, was resented against too.

On our journey to learn about one of the first projects allotted in Lahaul valley- the 144 MW Gondhla hydroproject²⁵ to be constructed by Moser Baer, we ran into the village of "super achievers"- Tholang.²⁶ Just as we pulled up at a tea stall where a bunch of men seemed to be performing their daily ritual of sipping chai together, we were told that this village alone had given the Indian Administrative Service close to a 100 people; of which many were on high level positions. We engaged in a discussion here. A few stopped for a chit-chat enroute their fields. Soon we got opinions on everything- from the progress and modernisation in their village to hydropower, the upcoming Rohtang

Tunnel and its implications for the Lahauli identity. Young men, middle aged, and few old (but all men), after listening to the purpose of our visit pointed towards a retired Army colonel, as if to give his view as the most credible one. After some reluctance countered by coaxing from his fellow villagers, he opined metaphorically, "Since time immemorial, these willow trees (colloquially known as Beli) have been synonymous to Lahaul's identity. But since last 4 to 5 years, they have started drying up. This seems like an unusual phenomenon as they have stood firm for generations."

Soon the rest of the group started listing signs of the changing times. Interestingly, for them, the arrival of mosquitoes was a significant change, courtesy the rising temperature. The list of 'changes' got longer - receding glaciers, erratic snowfall, shortage of water, off season vegetables, hydropower, out migration, etc. At this point, we gathered our guts to strum the sensitive cord- "What about the Rohtang Tunnel?" In a matter of seconds, a young guy, earlier seated at a distance stepped forward, and responded defensively. "Tell me, how long did it take you to cross the Rohtang Pass?" We recall the long arduous journey and find ourselves in a discomforting situation. "So



Dried up willow trees lined up in Rashil. They also mark the boundary between Rashil and Jobrang

you see, the tunnel will save you all that trouble, and tourism will flourish in the valley." he added. At this point, the colonel broke in jestingly yet clearly, "Chaar aana nuksaan aur baara aana fayda hoga". However, he alluded the swarming in of 'outsiders' as a possible threat to the Lahauli social fabric.

"Outsiders will contemplate settling here. Right now, when we set off to our fields, we don't lock our houses. The idea of theft is alien to us. The tunnel will change all of this."

Amidst concerns about the times ahead, we sensed a certain confidence and awareness in Tholang as opposed to Miyar, where people felt cheated. Perhaps, this was directly related to the top level bureaucrats and officers Tholang has produced which automatically renders them more political and social visibility. *“Our demands remained only on paper,”* were Virender's words in Miyar. In contrast, in Tholang, people proudly said, *“We did not even let Moser Baer survey our area for Gondhla hydro-project. The Managing Director and contractors tried convincing us for an NOC thrice, but in vain.”* As per newspaper reports, since the project involved constructing a storage dam on the Chandra river, the State government decided to drop the Gondhla hydroproject.²⁷ The Expert Appraisal Committee had also expressed its concerns about the drying up of Chandra river, given the planned hydro cascade in the basin.

Apart from these project areas, even in villages like Rashil, where the 130 MW Rashil project is proposed, several resolutions were passed against the project by the Gram Panchayat. According to the residents of Rashil, the dam site for Rashil project was planned to come up at Goshal, and power house at Rashil. The tunnel for Rashil project would mainly affect



Cauliflowers being packed to be transported to Manali and Chandigarh

Lingar village. The families in Jobrang also spoke of Jobrang hydropower project- the status and details of which remain ambiguous. Locals recalled village Trimurthi as Jobrang project's dam site location, and Jasrath and Nalda as tunnel affected villages from Jobrang's 6 km long tunnel. Rashil nallah's vulnerability to avalanches and floods was voiced as a concern in both Rashil and Jobrang. Again, the recent avalanche disaster in Darrah nallah has proved that people's concerns were and remain legitimate. As reported by local newspapers, recently a glacial mound from Darrah nallah fell on the Chandra river and blocked its flow for over 100 hours. Darrah nallah

falls between Jsrath and Jobrang villages. As per Gramin Yuva Sangathan, a similar incident had occurred in 1996 in Dimru nallah near Udaipur- with the resulting flood sweeping away several bridges in the Triloknath area. The ever looming threat of glacial flood was also evident in the concerns raised at Seli's public hearing conducted in Udaipur in 2011. A person from Madgran recollected the ruthless 1996 Thiroth glacier incident which allegedly flowed at great speed causing widespread damage in Tindi and Triloknath area.

As we traversed the landscape village after village, we were struck by the sizes of the houses, almost mansion like with many rooms. The old style construction in stone and mud had given way to cemented houses and tin roofs. "We have built such big houses but hardly 3 to 4 people live here, those too elderly. The younger ones prefer living in Kullu or Manali now. All the cash produced here is invested in Kullu and Nepal [laughing]", shared Bir Singh from Jobrang. It is interesting to see that despite recognising the inevitability of outmigration to towns like Kullu, Manali, Shimla and cities like Chandigarh and Delhi, Lahauli's seem to have retained that connection with the land. A few members of the family live here continuously throughout the year.

Just like no villages are abandoned, no fields are uncultivated. In fact, agriculture is a lucrative source of cash income in the valley. Commercial farming, especially off season



Locally called as "Mini Manali" this stretch of forest will be deforested for the proposed Seli Project

vegetable farming, has gained widespread popularity in the entire region over the last few years. Crop diversification has also resulted in a decrease in cultivation of erstwhile popular cash crops like potato and peas. Livelihood options have diversified in form of non-

farming activities with small businesses like shops, guest houses, hotels but agriculture undeniably remains core to the Lahauli economy. The inflow of cash into the economy through cash crops has also resulted in a greater exchange of information and knowledge. Mobile phones have fundamentally altered informational access even in this remote area and in many ways give form to local social-economic and cultural life of the valley.²⁸ Despite remaining snow bound for 6 months with prolonged electricity and telephone network disruptions, Lahaulis remain in tune not just with the region's political dynamics but larger national social and political developments too. Considering hydropower development is at its very initial stage in the valley, many villagers we randomly spoke to were able to point out the approximate project site locations, and name the projects for which surveys have already been conducted.

Dissenting Voices of Lahaul: Hydropower Opposition in the valley

For Seli, in 2013, local public in Udaipur objected to the hushed manner in which the land acquisition process was carried out. As per several project reports, a total of 58,595 trees will be diverted for Seli, however the locals claim the number is close to a lakh²⁹. Land will be acquired permanently from 94 families for Seli hydroproject. The total land requirement for Seli project is 292.97 ha. which includes 276.19 ha of forest land and 16.78 ha of private land.³⁰

Local activists, residing within and outside the valley have also been building legal argument against the 120 MW Miyar hydroproject. They have consistently challenged the credibility of the land acquisition process since the claim is that land was acquired under the old land acquisition act (of 1894) after the imposition of section 17 (the emergency clause of that Act). But despite local disapproval, the land acquisition process was initiated by the Government authorities. During the public hearing, a part of the Environment Clearance process for the project conducted in May 2011, concerns against forest diversion were raised by those dependent on forest resources for livelihoods like collection of firewood and medicinal plants. The probable impacts of muck dumping (that is generated while excavating tunnels) on the pollination process

of cherry, apple and several other fruit bearing varieties was also spoken of. The impacts of the blasting undertaken for tunnel on foundations of houses and crops was also raised as a pressing concern. For Seli and Miyar hydroelectricity projects, the residents also raised questions over the transfer of 'scheduled' land to non tribals (Lahaul-Spiti is a Schedule V area under the Indian Constitution, granting special rights and tribal status to its people). That critical provisions such as Forest Rights Act and Panchayat (Extension Scheduled Areas) Act,1996 have been outrightly violated is evident as many people stated the roping in of locals as contractors to smoothly to carry out the acquisition process in Kukumseri, Chimret, Shakoli, and Triloknath villages.

Protests against hydropower projects in Lahaul have primarily gained public and political visibility through public mobilisations against 400 MW Seli and 300 MW Jispa projects. In Jispa, public protests have been staged under the banner of Jispa Dam Sangarsh Samiti and in Udaipur under Seli Project Sangarsh Samiti. Both these mass fora have been crucial in invoking environmental awareness and rights discourse around hydropower projects in the Lahaul valley.

The Jispa dam is coming up 140 kms from Manali along the Leh -Chandigarh national highway, on river Bhaga. The dam is proposed downstream of the confluence point of the Jankar and Milang streams and the river Bhaga. The Jispa dam is a 200 meter high rock fill dam at an altitude of 3245 meters and is envisaged primarily as a water storage scheme to regulate downstream flow of the river and to generate 300 MW of electricity. The project when initially conceptualized was a 170 MW, run-of-the-river hydroelectricity project promoted



Dam site for Jispa dam project near Dracha village, Lahaul

by the Himachal Pradesh State Electricity Board (HPSEB). But in August 2008, the Central Government declared it a 'National Water Resource' project and modified it from a mere hydroelectric project to a water storage project with hydroelectric generation. Since the project received the status of a 'national' project, the State Government of HP allotted it to Himachal Pradesh Power Corporation Limited (HPPCL). There are 12 villages, namely Darcha-1 and 2, Sumdu, Limkyum, Rarik, Gandaj, Balijim, Yoche, Chikka, Dogma, Nama, Rangly and Makseen which will be completely/partially submerged by the project, displacing more than 250 families. Additionally, 40 shops will be also be submerged by the dam. Around 10 villages like Jispa, Gemur, Khangsan, Sorang, Kalong, Rangrik, Kwaing, Sitangiri, Kwang will be impacted by drying up of water sources due to construction of 18 kms long head race tunnel. Any policy decision pertaining to the Jispa hydro-project by the government is closely watched by members of the Jispa Sangarsh Samiti. The group has also actively lobbied with the Centre and the State government and has expressed discontent ever since the inception of Jispa hydro-project.

The Pradhan of Darcha Panchayat (affected panchayat) shared that a local delegation had met the Tribal Minister and Power department in March 2014. The group also appraised the Chief Minister about the situation in January 2014. Interestingly, social media platforms such as facebook are also being employed as effective tools in disseminating information on hydropower and most importantly in inducing the environment discourse among fellow residents, but especially, non-residents who want to 'save the valley'. Dissent building up, not just against hydropower projects but also the prevailing administrative and political malfeasance, is regularly highlighted and debated on many such online forums.

The valley witnessed its latest protest at a stakeholder consultation conducted by the Department Of Energy for Chenab's Cumulative Environment Impact Assessment (CEIA) on 29th October, 2014 at Killar, Keylong and Pangri regions of Lahaul-Spiti and Chamba³¹. The opposition of local people and environment groups at the consultation

testifies people's apprehensions about hydropower development in the valley. It seems that people are also aware of the non-seriousness of the government about studies like these. The former Chief Minister himself had termed the MoEFCC decision to recommend Chenab's CEIA as “unilateral and contrary to the state's interest”³² affirming that the state's economic agenda will be furthered through unabated hydropower development at any cost.

Civil society organisations such as South Asia Network on Dams, Rivers and People (SANDRP) and other environment groups within the state have consistently highlighted issues around Chenab's CEIA and questioned its credibility on several fronts. One such is the reliability of the government agency involved. *Surprisingly, this critical task has been entrusted to the Directorate of Energy, Government of Himachal Pradesh. Can there be any agency with greater conflict of interest than the Directorate of Energy for this study?* is a strong critique put forth by SANDRP³³. Looking at how undemocratically events unfolded in the Sutlej Valley, the state government and RS Environ link Ltd-the consultant agency, boasting of a conducting a participatory CEIA for Chenab is highly doubtful. How effectively and honestly will the local panchayats and public be involved in the decision making is yet to be seen³⁴.

The fate of hydro-projects in the valley, and how soon things start moving, now depends on three important developments. First is the Rohtang Tunnel. It is clear that the inaccessibility is a factor that will influence cost of production of power and power producers are waiting eagerly for the tunnel construction to be completed. The second is the local sentiment and resistance. From the current understanding of local resistance and general public opinion in the valley, it is apparent that for project proponents getting a consent or ‘No Objection Certificate’ from local Panchayats is going to be far from easy. The third, and also very important, is the over-all discourse on hydropower in the Himalayas, especially given the frequency of disasters in this region (Nepal Earthquake, Uttarakhand-Himachal-Kashmir floods). It is the

vulnerability and fragility of the Himalayas that is now begging urgent attention. The question is, whether and when it will be given the due concern.



Chenab Hydropower Project Details³⁵

Annexure 1: Partial list of hydropower projects planned/under implementation in Chenab Basin, Himachal Pradesh

No.	Project	Capacity (MW)	Tributary	District	Owner
1	Jispa	300	Bhaga	Lahaul&Spiti	HPPCL
2	Chattru	120	Chandra	Lahaul&Spiti	DCM Shriram
3	Shangling	44	Chandra	Lahaul&Spiti	Reliance Power
4	Miyar	120	Miyar Nallah/ Chandra	Lahaul&Spiti	HPPPL
5	Tandi	104	Chandra	Lahaul&Spiti	ABG Shipyard
6	Rashil	130	Chandra	Lahaul&Spiti	ABG Shipyard
7	Seli	400	Chenab	Lahaul&Spiti	HPPPL
8	Reoli Dugli	420	Chenab	Lahaul&Spiti	L&T HP Ltd
9	Teling	94	Chandra	Lahaul&Spiti	Teling HPPL
10	Bardang	126	Chenab	Lahaul&Spiti	ABG Energy
11	Pattam	60	Chenab	Lahaul&Spiti	NA
12	Tinget	81	Chenab	Lahaul&Spiti	Purthi HPPL
13	Purthi	300	Chenab	Lahaul&Spiti	Reliance Power
14	Sach Khas	260	Chenab	Chamba	L&T HPL
15	Dugar	380	Chenab	Chamba	Tata & SN Power
16	Gondhala	144	Chandra	Lahaul&Spiti	Mosar Baer
17	Koksar	90	Chandra	Lahaul&Spiti	NA

Annexure 2: Status of Projects on Chenab Basin in Lahaul Valley

Sr. No.	Project	Basin / Sub Basin	Installed Capacity (MW)	Developer	Date of MOU	Implementation Agreement	Terms of Reference	Environment Clearance	Forest Clearance (St 1)	Total Forest land required (Ha)
1	Seli HEP	Chenab	400	Seli HEP C Ltd/Hindustan HPL	NA	NA	NA	03-07-2013	01-07-2013	276.1875
2	Miyar HEP	Miyar Nallah / Chenab	90 to 120	Hindustan HPL	22-03-2011	NA	04-03-2010	NA	27-07-2012	63.0596
3	Tinget HEP	Miyar Nallah / Chenab	81	AMR-MITRA JV	31-5-2011	NA	NA	NA	NA	NA
4	Gyspa HEP	Chenab/Bhaga	300	HPPCL	NA	NA	26-03-2011	NA	NA	NA
5	Gondhla HEP	Chenab/Chandra	144	Mosar Baer India Ltd.	NA	NA	NA	NA	NA	NA
6	Chhatru HEP	Chenab/Chandra	108	DCM Sriram Infrastructure	NA	NA	08-05-2008	NA	NA	56.2
7	Teling HEP	Chandra/Chenab	94	Teling HPPL	01-06-2011	NA	23-11-2012	NA	NA	NA
8	Purthi HEP	Chenab	300 MW	Reliance HPPL	NA	NA	NA	NA	NA	NA
9	Bardang HEP	Chenab	126	ABG Shipyard Ltd	23-11-1991	01-11-1992	NA	NA	NA	NA

Annexre 3: List of small hydroelectric projects allotted on Chenab Basin in Lahaul&Spiti

Sr. No	Project	Stream	Capacity (MW)
1	Billing	Billing	2.00
2	Billing-II	Billing	3.00
3	Chhatru	Chatru	2.20
4	Gilding	Gilding	1.00
5	Jahlma	Jhalma	5.00
6	Kishori	Khee	1.50
7	Koksar	Koksar	1.00
8	Lanrenttar	Larenttar	3.00
9	Lingar	Linger	1.70
10	Shansha-I & II	Shansha	4.00
11	Shansha	Shansha	5.00
12	Tindi	Tandlu	0.40
13	Sissu	Sissu	0.80
14	Kurched	Kurched	3.00
15	Limphu	Limphu	2.75

Endnotes:

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- ¹³ <http://www.drukpa.com/shop/books/211-garsha-heart-land-of-the-dakinis>
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- ¹⁵<http://www.bro.nic.in/indexmain.asp?projectid=29>
- ¹⁶<http://www.deccanherald.com/content/424551/a-himalayan-tunnel-good-hope.html>

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- ¹⁸<http://infochangeindia.org/environment/analysis/bumper-to-bumper-dams.html>
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