

Kinnaur's Curse?

Environmental Threat from Hydroelectric Projects

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Kinnaur, one of Himachal Pradesh's most ecologically fragile regions, is under threat from widespread construction activity for hydroelectric power projects. Landslides have become a common occurrence putting lives of villagers to severe environmental risk.

A War Zone in Kinnaur

National highway 5—a stretch of 10 km from Powari to Ralli in Kinnaur District, on the right side of the Sutlej River—looked like a war zone. Vehicles kept skidding on its mucky surface. That the edge of the road was lined with grey muck and debris, made it particularly vulnerable to road accidents.

Much of the muck had been excavated out of the mountains lining that road, for building a hydroelectric power generation tunnel. Of late, there had been frequent landslides which brought down rocks and boulders.

The road was lined with trucks, dumpers, mixers, diggers, crane, pipes and cables. A massive terminator-like machine with two elongated arms was parked at the entrance of one of these tunnels. Called a “boomer,” this powerful hydraulic machine reportedly drilled hundreds of deep holes into the mountain face in a span of a few hours. Explosives were then used to blow up the target area to make way into the mountain, forming tunnels that were 12 metres in diameter. Signs intermittently warned of “danger” from “shooting stones” because “blasting” was in progress. The signs had been put up by Patel Engineering, subcontractor for Himachal Pradesh Power Corporation Limited (HPPCL). This mammoth operation was for the construction of the company's 450 MW Shongthong Karchham project.

However this operation gave no indication of the resistance of the people in Kinnaur to hydroelectric power projects, promoted for long as “clean” energy. The past decade has seen a spate of developments in this Schedule v district of Himachal Pradesh. The most significant has been the construction of hydroelectric power projects like the Satluj Jal Vidyut Nigam-promoted 1,500 MW

Nathpa Jhakri, Jaypee Group's 300 MW Baspa and 1,200 MW Karchham Wangtoot projects.

Floods in 2013

Kinnaur lies upstream of the Sutlej valley which has an identified electricity potential of close to 13,000 MW, with 51 small and 23 large projects which are under various stages of planning and construction. While the story of unfulfilled promises of “development” for the region has unfolded gradually, the narrative of destruction around hydropower seems to have gained traction in the last five years.

In June 2013, while the world watched images of a Shiva statue being submerged chest deep in the devastating Uttarakhand floods, and concrete habitations being swept off along the riverbeds of Alaknanda and Bhagirathi—both tributaries of the Ganga, a calamity on a similar scale was unfolding in the neighbouring region of Kinnaur, which got little media attention.

From 15 to 17 June 2013, Kinnaur region experienced extremely heavy rainfall and parts of upper Kinnaur saw unprecedented snowfall up to 3 feet in the winter of the same year. The total rain in three days measured 368 mm, which was more than the average annual rainfall—350mm, experienced by a region like Kinnaur. The rain and snow caused serious floods, landslides, erosion and damage to agriculture fields, apple orchards and cattle apart from disrupting daily life. The infrastructure of the region collapsed causing losses estimated at 2,500 crore.

But more than anything the floods once again highlighted the fact that large-scale construction activity in this region was likely to further exacerbate the erosion and destabilise the slopes, the impact of which would be multiplied at the time of heavy rains and floods. Areas where projects' roads and tunnels had been constructed since then have experienced landslides on an unprecedented scale.

Landslides in Villages

The most prominent example of these landslides is that of Pangia a village near Recong Peo town, where the road construction for the Kashang I dam site, led

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to massive landslides which got worse in the rains. People had been demanding the company to carry out mitigation measures but no action was taken. Rajkumar from the village said, "More than 350 apple trees will just slide down and almost 20–25 families will be affected but the company, despite promises to the gram sabha, has done nothing." Severe damages were caused to the project powerhouse construction site during these floods.

The 450 MW Shongtong-Karchham project which is now under construction had been impacting five villages. Its tunnel was being constructed in a landslide-prone area—no wonder then that fresh landslides are being reported from the area with alarming frequency. The people of one of the affected villages, Barang, had brought to a halt the construction activities for the project in 2013 to negotiate their demands. Last year the work on the project's tunnel began in full swing and led to caving in of private lands belonging to four families.

Similar was the case of the neighbouring Mebar village. In April 2015, a section of the national highway, where the tunnel construction was going on, was blocked as a mass of rocks just collapsed. This area called Laal *dhank* (rocky cliff/overhang) has the village Barang situated right above it. It took close to 48 hours to fully clear the road as vehicles and travellers lined up at both ends of the road.

Perhaps the one striking case which managed to get some coverage over the last year is of the Urni landslide. "Urni is sitting precariously above the junction of the flushing tunnel, Head Race Tunnel and Adit tunnel¹ of the newly operational 1,200 MW Karchham Wangtoo project. In July 2014 the Urni *dhank* collapsed blocking the national highway," said Ramanand Negi of the village.

Kinnaur Remains Cut Off

The main highway connecting Kinnaur is still a spectacle. For the last one and a half year the administration has not been able to restore connectivity to nearby towns and villages. Locals complained that they have had to bear an extra carriage cost coming to Rs 20 for every carton of apple they took out of the area.

A small culvert was built a couple of months ago through a barely flowing Sutlej River on which the vehicles were plying. This month with an increase in the river flow, the culvert too got damaged.

However, the more disturbing part of the story is that with the rock-face coming down, the apple orchards of almost 13 families in Urni village were sliding down as well. When asked about the response of the administration to this, Negi, who also lost a couple of *bighas* of his orchards added, "The state Geological Department did a site investigation and they said that the slide was because of flood irrigation for the orchards or some other seepage."

He further added that an older water source, that was thought to have gone underground, re-emerged after the landslide. While he remembered that he had heard from the older village folk that there used to be a *chashma* (natural water source/spring) in that location there was no water source or spring in that area for several decades.

The drying up, and re-emergence of water sources (in rare cases), in different locations has been seen in all the five panchayats sitting above the Karchham Wangtoo tunnel. Tunnels were built using blasting which have caused hydro-geological changes which could have disturbed the underground water aquifers.

Old water sources may have emerged but there has been depletion of current water sources as well. The Irrigation and Public Health department has been monitoring the water discharge of 167 water sources in five panchayats since 2005. Data revealed that by 2009 almost 43 out of 167, that is, 26% of water sources had dried up and in 67 sources, that is, almost 40% of the discharge had reduced. This impacted the regular supply of drinking water in the area, especially in the summers.

Apathy and Negligence

While destabilisation of slopes and disturbance of water sources seem to be emerging as the two major impacts of tunnelling and construction activity for hydro projects, there is no effort whatsoever,

by the state government or the Ministry of Environment, Forest and Climate Change (MOEF) to recognise that there exists a linkage between depletion and rampant construction, that needs to be studied rigorously by scientific and independent agencies.

In the case of landslides, which are being linked to an increase in rainfall or irrigation methods, the government has been providing relief packages. R S Negi, a senior citizen of Kinnaur and member of Him Lok Jagriti Manch, a forum that has been raising issues of local rights over resources, said

The demand that we have been making, especially in cases like Pangi or Karchham Wangtoo, is that the affected people should be given compensation, not relief. Had there been no project activity the impact of even a natural calamity or heavy rainfall would not be so drastic.

On the directions of MOEF, in 2014, Himachal Pradesh government had commissioned a Cumulative Environment Impact Assessment (CEIA) study of hydro projects in Sutlej valley (Express News Service 2012). The shoddy study, thereafter, conducted by the Indian Council of Forestry Research and Education (ICFRE), further fuelled the existing local opposition. This became evident in the public consultation conducted on 12 December 2014 in Kinnaur where hundreds of local people articulated sharply, their critique of the study as well as hydroelectric power development in the Sutlej Valley. The locals termed the report as biased and pro hydroelectric projects (Him Dhara 2014).

The report refuted the drying up of water sources by calling it a temporary phenomena. They have also said that in the long run the sources would re-emerge. However, that was not found to be true—in the socio-economic impact studies of the Baspa and Natha Jhakri projects, much older than the Karchham Wangtoo project. The study revealed that close to 70% of the locals still reported that water sources remain affected in the area. The study had also overlooked the impact that the already constructed projects have had by way of damage to houses situated in the vicinity of the areas where blasting operations were undertaken. This is despite the fact that

67% of the respondents for under construction projects have reported damage to houses due to blasting operations for construction.

Local Sentiment

With these developments, there has been a definite shift in the mood and local acceptance to hydropower. In the Pooh region, gram sabhas have also passed resolutions against the proposed Sumla Yangthang, Yangthang Khab and Chango Yangthang projects. D K Negi of Khadura village which is now sitting on a huge landslide added, “The (2013) calamity brought disappointment but it also brought hope that at least now people will begin to understand what kind of development this region cannot take,” referring mainly to the unplanned and massive hydroelectric project proliferation in the region.

Rarang, Khadura, Jangi, Akpa villages on the right bank of the Sutlej were clear that they would not issue no objection certificates (NoC) to new projects. Two projects were being planned there—phase three of the Integrated Kashang project and the other, Jangi–Thopan–Powari. In fact, these villages would be affected by tunnels of both these projects.

What has given new momentum to the local resentment, especially in lower Kinnaur, is that of the Jaypee Workers Union. “This is a company that has won many awards for its performance in generating electricity but has no respect for its workers and their safety,” said Bihari Seugi, secretary of the union. About 50 workers packed in their tiny union office at Tapri narrated horror stories, some their own and some of their fellow workers who were injured during work or lost their lives in return for little or no compensation.

Of the 1,800 people employed by JPVL (Jai Prakash Ventures Limited) in the Karchham Wangtoo and Baspa projects, close to 1,364 are part of the strike, which has now crossed over a 100 days and are demanding fair and minimum wages, housing facilities and implementation of other provisions for workers under the Factories Act. For the last two years workers had been trying to negotiate with the management on

their demands. When they were not heard they registered the union in 2014. They started the negotiations as a union since 15 October 2014. The fact that Jaypee has been trying to sell the project (both this and Baspa II) gave an impetus to the workers from both projects to organise themselves. While the sale to the Jindal group has yet to be finalised, the workers’ issue remains unresolved.

Interestingly, in a large mass gathering organised by the union on 19 March 2015 the call that was given was “Kinnaur Bachao”. They demanded that 1% royalty be paid to all families of the project affected areas as one of its top demands. That was a strategic move to gain local support which the workers did manage to garner. Rakesh Singha of the Communist Party of India (Marxist)—CPI(M)—which has been lending support to the Jaypee Workers Union since February 2015 added,

On 18th March a day before the rally the District Administration imposed Section 144 in the worker’s colony and the main ground. As a result people could not return to their camps for close to 15 days. About 500 to 700 workers had to seek shelter in caves and forests around the area to protect themselves. The local villages contributed with rations and cash to support them. In fact, on the day of the rally too, populations from several of the affected villages showed up as a sign of solidarity. The movement was not possible without support of the locals.

Of course, there are many who are sceptical about the role of the worker’s agitation in the long run, especially vis-à-vis local impacts and other projects. N S Negi, a senior resident from Peo said,

Our fight against the Karchham Wangtoo project dates back to 2005 and has raised a spate of issues especially the one of forest and livelihood rights. Hundreds of local people affected by the Karchham Wangtoo project have been engaged in long court battles which has exerted enough pressure on the company to pay the compensation as well as release Local Area Development funds. But what about the new projects which are being pushed? None of the political parties are concerned about the local people or the environment.

The people of Kinnaur today seem to be coping with a rapidly shifting landscape, with changes that are geological,

ecological, social, economic and even cultural in nature. In lower Kinnaur, people express hopelessness that they are paying the cost because a few from their community got lured by jobs and contracts, while the majority caved into government pressure or fooled by the development rhetoric offered by the political representatives. “Education and money has made people blind,” said Gautam, a young farmer from Mebar when asked what people feel about life after hydropower development in the region. Many a Kinnaurites reminisce of “the good old days” when the earth was not getting pulled off their feet, literally. For now it is apparent that it is the developments from this region that will be shaping the larger discourse on hydro-oriented development in Himachal.

NOTE

- 1 An Adit tunnel is a horizontal or near-horizontal passage driven from the Earth’s surface into the side of a ridge or mountain for the purpose of working, ventilating or removing water from a mine.

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