

WHY ARE HYDROPOWER PROJECTS IN THE HIMALAYAS RISKY?

Relevant for: Environment | Topic: Environmental Degradation - GHGs, Ozone Depletion and Climate Change

Site of tragedy: The Tapovan project, which was ravaged by floods in February 2021. V.V. Krishnan

The story so far: The Environment Ministry, in an affidavit placed in the Supreme Court earlier this month, has disclosed that it has permitted seven hydroelectric power projects, which are reportedly in advanced stages of construction, to go ahead. One of them is the 512 MW Tapovan Vishnugadh project, in Joshimath, Uttarakhand that was damaged by a flood in February.

What's the history of hydel projects in the Himalayas?

In the aftermath of the Kedarnath floods of 2013 that killed at least 5,000 people, the Supreme Court had halted the development of hydroelectric projects in Uttarakhand pending a review by the Environment Ministry on the role such projects had played in amplifying the disaster. A 17-member expert committee, led by environmentalist Ravi Chopra, was set up by the Ministry to examine the role of 24 such proposed hydroelectric projects in the Alaknanda and Bhagirathi basin, which has the Ganga and several tributaries. The Chopra committee concluded that 23 projects would have an “irreversible impact” on the ecology of the region. Following this, six private project developers, whose projects were among those recommended to be axed, impleaded themselves in the case on the ground that since their projects had already been cleared for construction before the Kedarnath tragedy, they should be allowed to continue.

The SC directed a new committee to be set up to examine their case. This committee, led by Vinod Tare of the Indian Institute of Technology, Kanpur, concluded that these projects could have a significant environmental impact.

The Environment Ministry in 2015 set up yet another committee, led by B.P. Das, who was part of the original committee, but had filed a “dissenting report”. The Das committee recommended all six projects with design modifications to some.

The Water Resources Ministry, then led by Minister Uma Bharti, has been consistently opposed to hydropower projects in the Ganga. In charge of the National Mission for Clean Ganga, the Water Ministry has maintained that the cleanliness of the river was premised on minimum levels of water flow in all seasons and the proposed projects could hinder this. By 2019, however, the renamed Jal Shakti Ministry had changed its stance to accommodate seven out of the 24 projects. Its current position is that barring these, it is “not in favour” of new projects in the Ganga river basin.

Though hearings in the Supreme Court are ongoing, this is the first time that the government has a formal uniform position on hydropower projects in the Uttarakhand region.

What are the challenges such projects face?

Following the break in the Raunthi glacier that triggered floods in the Rishiganga river in Uttarakhand on February 7, which washed away at least two hydroelectric power projects — the 13.2 MW Rishiganga hydroelectric power project and the Tapovan project, environmental

experts have attributed the glacial melt to global warming. Glacier retreat and permafrost thaw are projected to decrease the stability of mountain slopes and increase the number and area of glacier lakes. Moreover, with increased instances of cloudbursts, and intense spells of rainfall and avalanches, residents of the region were also placed at increased risk of loss of lives and livelihood.

How can these conflicts be resolved?

The challenges facing development in the Himalayan region are multi-faceted. The Uttarakhand government has said that it's paying over Rs. 1,000 crore annually to purchase electricity and therefore, the more such projects are cancelled, the harder for them to meet their development obligations. Several environmentalists and residents of the region say that the proposed projects being built by private companies allot only a limited percentage of their produced power for the State of Uttarakhand itself. Thus the State, on its own, takes on massive environmental risk without being adequately compensated for it or its unique challenges accounted for. Though the Centre is committed to hydropower projects because it's a renewable source of power, the ecological damage combined with the reduced cost of solar power means that it has in recent times said that it is not in favour of greenfield hydropower projects in the region. But several environmental activists say that the Centre will continue to prioritise infrastructural development in the region, even if it comes at a heavy environmental cost.

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