

Land use change disrupted Kinnaur's ecology, says study

Development projects could up the risk of landslips

VIKAS VASUDEVA
CHANDIGARH

After nine people lost their lives in a landslide in Himachal Pradesh's Kinnaur district, a debate surrounding the degradation of the environment in this ecological sensitive hill terrain is bound to gain momentum.

A recent study suggests that both hydropower projects and afforestation efforts, carried out as compensation for the forest land diverted for hydropower projects in the name of 'mitigation', have altered land use and are negatively impacting the forest ecosystems.

The study, titled *Mitigation or myth? Impacts of hydropower development and compensatory afforestation on forest ecosystems in the high Himalayas*, was undertaken by Manshi Asher and Prakash Bhandari, environmentalists associated with the Himdhara Environment Research and Action Collective. It was published in the *Land Use Policy* journal of January 2021.

The study, conducted between 2012 and 2016, used information from govern-



A stretch of road that was damaged by the recent landslide in Kinnaur.

ment records and ground research to examine the extent, nature and impact of forest diversion for hydropower projects in Kinnaur.

"Our study found that not only have construction activities for hydropower projects impacted existing land use, disturbed forest biodiversity and fragmented the forest landscape, but the related compensatory afforestation plantations are also ridden with problems. These include abysmally low presence of surviving saplings [up to 10%], inter-species conflict, infringement on local land usage and damage by wildfires and landslips," said Ms. Asher.

She said studies show that

the tunnelling in mountain areas will result in the risk of more landslips as large amounts of water percolate into surfaces. "The use of dynamite for blasting through the surfaces and underground components of the projects disturb existing slopes and the fragile geology."

Shanta Kumar Negi, president of the Kinnaur-based environment conservation organisation Hangrang Sangharsh Samiti, told *The Hindu* that over the years, climate change is visible. "The conditions of Kinnaur are not favourable for hydropower projects. Construction activities include blasting, which has to be done in a scientific manner, but the ground reality is that there's hardly any check on the frequency of blasting. We are not against development but Kinnaur is environmentally fragile, and this fact should not be ignored. Development at the cost of human lives is not acceptable," said Mr. Negi.

Nine tourists were killed after boulders fell on their vehicle in a landslide near Basteri in Kinnaur district on July 25.