

85 per cent districts in Uttarakhand vulnerable to extreme floods: CEEW

Extreme flood events in Uttarakhand have increased four-fold since 1970.

New Delhi, 11 February 2021: Over 85 per cent of districts in Uttarakhand, which are home to over nine million people, are hotspots of extreme floods and its associated events, according to independent analysis released today by the Council on Energy, Environment and Water (CEEW). The frequency and intensity of extreme flood events in Uttarakhand have increased four-fold since 1970. Similarly, associated flood events such as landslides, cloud bursts, glacial lake outbursts, etc. have also increased four-fold during this period, causing massive loss and damage. The state's Chamoli, Haridwar, Nainital, Pithoragarh, and Uttarkashi districts are the most vulnerable to extreme floods.

Abinash Mohanty, Programme Lead at CEEW, said, "The recent devastating flash flood in Uttarakhand is further proof that the climate crisis can no longer be ignored. In the last 20 years, Uttarakhand has lost more than 50,000 hectares of forest cover, leading to micro climatic changes in the region. This in turn has triggered a rise in extreme climate events in the state. A focus on land use-based forest restoration could not only reverse the climate imbalance but also help promote sustainable tourism in the state. Equally important would be climate proofing of infrastructure, investments, and policies. This is no more an option, rather a national imperative to tackle such extreme events and ensure minimal loss and damage."

Arunabha Ghosh, Chief Executive Officer, CEEW, said, "The tragedy in Uttarakhand reiterates the need for detailed district-level climate risk assessments and enhancing adaptive and resilience capacities at various administrative levels. Further, given that vulnerable communities are often the most affected by extreme climate events, they must be made an integral part of risk assessment planning. Finally, with the rising frequency of extreme climate events, India needs to urgently develop a nationwide but decentralised and structured, real-time digital emergency surveillance and management system. In the end, we cannot continue with the folly of a business-as-usual development model. This is costing lives, livelihoods and billions in infrastructure damage. India must chart a more resilient and climate-friendly pathway to economic prosperity and human development."

According to a report released by the Ministry of Earth Sciences last year, the Hindu Kush Himalayas experienced a temperature rise of about 1.3°C during 1951–2014. The increase in temperature has led to micro climatic changes and faster glacial retreat in Uttarakhand, thereby triggering frequent and recurrent flash floods. In the coming years, this could also impact 32 major ongoing infrastructure projects in the state, worth more than INR 150 crores each.

Along with a rise in extreme flood events, the CEEW analysis also highlighted that droughts had increased two-fold in Uttarakhand since 1970 and more than 69 per cent of districts in the state were vulnerable to it. Also, in the last decade, floods and drought occurred simultaneously in the districts of Almora, Nainital, and Pithoragarh. This further complicates risk-informed decision making for policymakers and response teams.

A 2015 report on climate risk assessment by CEEW, along with other global partners, had indicated a six-fold increase in flood frequency in the Ganga basin, over the course of the century, on a high emissions pathway. Another CEEW study published in 2020 had found that 75 per cent districts and half of India's population were vulnerable to extreme climate events.

About CEEW

The Council on Energy, Environment and Water ([CEEW](#)) is one of Asia's leading not-for-profit policy research institutions. The Council uses data, integrated analysis, and strategic outreach to explain – and change – the use, reuse, and misuse of resources. It prides itself on the independence of its high-quality research, develops partnerships with public and private institutions, and engages with the wider public. In 2021, CEEW once again featured extensively across ten categories in the *2020 Global Go To Think Tank Index Report*. The Council has also been consistently ranked among the world's top climate change think tanks. Follow us on Twitter [@CEEWIndia](#) for the latest updates.

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