

CLEAR AND PRESENT DANGER: Climate Change Hazards in the Himalayas

Thursday, 25th February 2021

17:00 – 18:30 hrs (IST)

The Himalayas, also called the Third Pole, are unique mountain systems from the climate change and natural hazards perspective for at least four reasons: (i) they are one of the youngest, tectonically active and geologically fragile and tallest mountains anywhere on earth, (ii) in spite of having significant area with permanent snow cover along with many temperate biodiversity elements and vegetation communities they also have a strong tropical Monsoonal hydro-climatology in addition to contribution from western disturbances and have some of the highest rates of warming, with evidence of major perturbations to vegetation response, including temperature induced moisture stress, (iii) the Himalayas have unique water sources such as springs that sustain remote communities but are also an important source of water, carbon and sediment for sustaining downstream socio-ecological systems from flood-plain rivers to the Ganga-Brahmaputra delta and the Bay of Bengal, (iv) the Himalayas are currently undergoing huge transformations: climatic, socio-economic and developmental.

Climate change is threatening the future of glaciers as well as rain-fed systems putting the dynamic water resources under severe stress. This is likely to expose a significant fraction of regional human population and ecosystems and biodiversity to serious climate hazards. Understanding the details of the climatic forcing that is driving the changes over the Himalayas, therefore becomes essential for future adaptation and mitigation strategies. This makes the Himalayas particularly vulnerable overall and thus has implications for choices of development pathways. In this webinar we explore the following topics and questions:

1. What are the emerging trends regarding key drivers of climate and ecosystem response?
2. How does geology and climate change interact in the Himalayas to generate hazards and how can we respond to them?
3. How can we change the discourse on business as usual to climate change and enable natural hazard resilient development pathways?

We invite you to attend the webinar using this registration link:

https://us02web.zoom.us/webinar/register/WN_tNm9BA2Sn0zFW2ZpYN_pA

The webinar will also be live-cast via [Facebook Live](#).

SPEAKERS

Dr. Aditi Mukherji

Principal Researcher, International Water Management Institute, New Delhi

She leads the Research Group on Climate Change Adaptation and Resilience (CCAR). She has over 20 years of experience working on policies and institutions of water resources management with a special focus on water-energy-food nexus. She is the coordinating lead author of the water chapter of the 6th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

Dr. Argha Banerjee**Assistant Professor, Earth and Climate Science, IISER-Pune**

He is a glaciologist working mainly on problems related to Himalayan glaciers and their climate response. He is also interested in understanding the climate sensitivity of glacier-fed Himalayan rivers and that of the Himalayan landscape.

Dr. Pankaj Kumar**Asst. Professor, Department of Earth and Environmental Sciences, IISER-Bhopal**

He is a meteorologist and leads the Climate and Glacier Modelling Lab, primarily involved in developing a regionally compatible regional earth system model for South Asia for climate change studies focusing on India. He is the recipient of the prestigious Ramanujan Fellowship (2015), and was nominated as International Expert on OPACE by the World Meteorological Organisation, United Nations (2016).

Dr. Ruchi Badola**Scientist G/Senior Professor, Wildlife Institute of India, Dehradun**

She heads the Department of Eco-Development Planning and Participatory Management, and conducts applied research on various aspects of wildlife management such as eco-development planning and human-wildlife conflict mitigation. She has also been coordinating the Ganga Biodiversity Conservation Initiative under the Namami Gange flagship programme of the Government of India.

MODERATORS**Dr. Jagdish Krishnaswamy****Senior Fellow, ATREE, Bengaluru; Biodiversity Collaborative**

He is an ecohydrologist and landscape ecologist currently working on quantification and mapping of ecosystem services and ecological flows in rivers. His work draws upon field measurements integrated with remotely sensed proxies.

Dr. Roxy Mathew Koll**Climate Scientist, Indian Institute of Tropical Meteorology, Pune**

He is currently leading research on climate change – how it extends to the rapid warming in Indo-Pacific oceans and impacts the global rainfall pattern, the monsoon and the marine ecosystem. He is a Co-Chair of the CLIVAR Indian Ocean Region Panel, and a Lead Author of the IPCC Special Report on Oceans and Cryosphere in a Changing Climate.