



National Disaster Management Authority

First International Webinar on the occasion of International Mountain Day

NEW STRATEGIES TO MITIGATE THE RISK OF GLACIAL LAKE OUTBURST FLOODS (GLOF) RELATED DISASTERS IN INDIAN HIMALAYAN REGION (IHR)



A catastrophic failure of the glacier or moraine dam can release the water over periods of minutes to days causing extreme downstream flooding. Peak flows as high as 15,000 cubic meters per second have been recorded due to GLOF events. Such events have killed thousands in many parts of the world and some of the largest events have occurred in the Himalayas such as the Kedarnath disaster (2013) in Uttarakhand, Parechu River (2005) in Himachal Pradesh, etc. The threat of glacial lake outburst flood (GLOF) in particular is receiving increased attention, also awareness for glacial lake monitoring and hazard mitigation has increased recently in India.

DECEMBER 11, 2020

15:00 - 16:00 P.M. (IST)

GUEST SPEAKER'S

REGISTRATION LINK: <https://forms.gle/DJU4A3W1tmzwndcP8>



Dr. Pankaj Kumar, PhD

Asst. Professor
Department of Earth and Environmental Sciences
Indian Institute of Science Education and Research (IISER)
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Dr. Holger Frey, PhD

Asst. Professor
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Ms. Priyanka
Junior Consultant (GLOF), NDMA

PROGRAMME SCHEDULE

Webinar on 'New strategies to mitigate the risk of Glacial Lake Outburst Floods (GLOFs) related disasters in Indian Himalayan Region (IHR)'

Date: December 11, 2020
Time: 3:00 PM – 4:00PM (IST)

Registration Link: [Click here to register for the webinar](#)

Time	Topic	Speaker
3:00 - 3:05 PM	Welcome Address	Ms. Priyanka Junior Consultant (GLOF), NDMA
3:05 - 3:15 PM	Inaugural Address	Lt. Gen. Syed Ata Hasnain (Retd.) Member, NDMA
3:15 - 3:35 PM	Session:1: The response of Himalayan glaciers to climate variability and climatic change: a glacier-climate model assessment	Dr. Pankaj Kumar Department of Earth and Environmental Sciences Indian Institute of Science Education and Research (IISER), Bhopal, India.
3:35 - 3:55 PM	Session: 2: The new GLOF risk management strategy for India in an international context	Dr. Holger Frey Department of Geography University of Zurich (UZH), Switzerland
3:55 - 4:00 PM	Q & A	

Webinar on:

'New strategies to mitigate the risk of Glacial Lake Outburst Floods (GLOFs) related disasters in Indian Himalayan Region (IHR)'

1.0 Introduction

Mountain regions are characterized by sensitive ecosystems, enhanced occurrences of extreme weather events and natural catastrophes; they are also regions of conflicting interests between economic development and environmental conservation.

The Indian Himalayan Region (IHR) is facing important challenges in view of coping with adverse effects of climate change. Like many other mountain regions worldwide, the IHR is particularly sensitive to changes in global climate, from both a physical and societal perspective. Physically, the disappearance of mountain glaciers, expansion of large glacial lakes and formation of new glacial lakes are amongst the most recognizable and dynamic impacts of climate warming in this environment.

A catastrophic failure of a glacier or a moraine dam can release the water over periods of minutes to days causing extreme downstream flooding. Peak flows as high as 15,000 cubic meters per second have been recorded due to GLOF events. Such events have killed thousands in many parts of the world and some of the largest events have occurred in the Himalayas such as the Kedarnath disaster (2013) in Uttarakhand, Parechu River (2005) in Himachal Pradesh, etc.

The **ten-point agenda** on Disaster Risk Reduction (DRR) outlined by the Hon'ble Prime Minister of India, reflects upon the “**opportunity to learn from a disaster must not be wasted**”; “**greater cohesion in international response to disasters**” must be brought in for effective and coordinated response; investing globally in mapping and understanding of the nature and associated disaster risks; greater and central involvement of women in DRR as the key support for reducing the risk and managing special needs of women during such disasters; etc. are the way forward.

As a result of the determination to mitigate such events in future by making use of technology and taking initiatives through funding opportunities under mitigation fund window available as per recommendations of **15th Finance Commission**. These kinds of initiatives will make holistic disaster risk reduction by incorporating new strategies through awareness and capacity building about glacial and other such hazards in India.

In view of that, NDMA is organizing a webinar on the occasion of **International Mountain Day**, to explore ‘**New strategies to mitigate the risk of Glacial Lake Outburst Floods (GLOFs) related disasters in IHR**’.

2.0 Speakers:

a.) Dr. Pankaj Kumar

Department of Earth and Environmental Sciences

Indian Institute of Science Education and Research (IISER), Bhopal, India.

Lecture Topic (20 minutes): The response of Himalayan glaciers to climate variability and climatic change: a glacier-climate model assessment.

b.) Dr. Holger Frey

Department of Geography

University of Zurich (UZH), Switzerland.

Lecture Topic (20 minutes): The new GLOF risk management strategy for India in an international context

3.0 Date and time:

On 11th December, 2020 (Friday) at 3:00 – 4:00 P.M. (IST)

4.0 Target Audiences:

- Professionals working in the field of Glacial risks and hazards management i.e., Central/ State Government officials from geological and glaciological department, etc.
- Other State Government officials working in managing related risks and hazards.
- Disaster Managers from SDMA's/ DDMA's & ATI's.
- Post-doctoral fellows, research scholars and early career researchers, etc.

5.0 Registration link:

[Click here to register](#)