

## **Training Programme on Flash Floods and GLOFs Risk Reduction at Vulnerable Locations along Mountain River Basins**

**29-31 October 2025 | NIDM Rohini Campus, Delhi**

### **Background**

The Indian Himalayan Region (IHR), often referred to as the “Third Pole,” is highly vulnerable to Glacial Lake Outburst Floods (GLOFs) and flash floods. Climate change driven glacial retreat has led to the rapid formation and expansion of glacial lakes in states like Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh. These lakes, dammed by weak moraines, are prone to sudden breaches triggered by avalanches, cloudbursts, earthquakes, or heavy rainfall, causing catastrophic downstream flooding.

Events such as the Kedarnath tragedy (2013), Chamoli disaster (2021), and the South Lhonak GLOF in Sikkim (2023) have highlighted the devastating impacts on lives, livelihoods, infrastructure, and fragile mountain ecosystems. The risks are further compounded by flash floods from intense cloudbursts, making it imperative to strengthen preparedness and resilience in Himalayan states.

### **Why Flash Flood & GLOF Risk Reduction?**

- GLOFs and flash floods pose severe risks to mountain communities, hydropower projects, roads, bridges, and ecosystems.
- Effective management requires risk assessment, early warning systems, structural and non-structural mitigation, community preparedness, and inter-agency coordination.
- This training aims to sensitize and equip stakeholders with the knowledge, skills, and strategies needed to address these unique high-altitude hazards.

### **About NIDM**

The **National Institute of Disaster Management (NIDM)** was constituted under an Act of Parliament with a vision to play the role of a premier institute for capacity development in India and the region. The efforts in this direction that began with the formation of the National Centre for Disaster Management (NCDM) in 1995 gained impetus with its redesignation as the National Institute of Disaster Management (NIDM) for training and capacity development. Under the Disaster Management Act 2005, NIDM has been assigned nodal responsibilities for human resource development, capacity building, training, research, documentation and policy advocacy in the field of disaster management.

### **Target Group**

This programme is designed for officials and professionals involved in disaster management in the Himalayan states/UTs:

- State/UT Disaster Management Authorities (SDMAs/DDMAs)

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- Irrigation & Flood Control Departments
- Municipal Corporations & Urban Local Bodies (ULBs)
- Public Works Department (PWD) & BRO
- Urban Planning Departments
- SDRF & NDRF officials
- Research and technical institutions working on GLOFs/flash floods

## **Course Objectives**

- To provide a comprehensive understanding of GLOF and flash flood dynamics in the IHR.
- To familiarize participants with NDMA Guidelines on GLOFs (2020) and the NGRMP framework.
- To enhance knowledge of hazard mapping, monitoring, and early warning systems.
- To discuss structural and non-structural mitigation strategies for high-risk glacial lakes and valleys.
- To strengthen community preparedness and inter-agency coordination.

## **Course Schedule**

### **Day 1: Understanding GLOF & Flash Flood Hazards**

- Overview of Flash Floods and GLOF Hazards (case studies: Kedarnath 2013, Chamoli 2021, Sikkim 2023)
- Glacial Lake Dynamics & Triggers of GLOFs
- Hazard Mapping & Vulnerability Assessment

### **Day 2: Risk Mitigation & Policy Frameworks**

- NDMA Guidelines on Management of GLOFs (2020)
- National GLOF Risk Mitigation Programme (NGRMP)
- Early Warning & Monitoring Systems
- Structural & Non-Structural Mitigation Measures (case experiences from Sikkim)

### **Day 3: Preparedness, Response & Strategy Development**

- Community Preparedness & Capacity Building
- Emergency Response & Incident Management
- Simulation Exercise
- Valedictory Session

## **Mode of Instruction**

The primary language of instruction will be **English**. However, resource persons may use Hindi or local languages based on participants' needs.

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## Registration Details

- **Online nomination:** The participants may fill up the Google Form via this weblink: <https://forms.gle/QuRTHgk3Nx5KcHCS7> or scan **QR code** for sharing their nominations.
- **Confirmation:** The confirmation to attend the programme will be shared via email. Only confirmed participants will be permitted to attend the course.
- **Offline Registration:** For confirmed participants, in-person registration will take place on Day 1, Monday 29 October, 2025, from 9:00 AM at the venue.



## Transport, Accommodation, and Food

- **No Course Fee:** The training programme is fully sponsored by NIDM.
- **Boarding & Lodging:** Free accommodation and meals will be provided at NIDM during the course.
- **Travel Costs:** Participants/sponsoring organizations must bear to & fro travel expenses, including local transport.
- **Meals:** Tea and working lunch will be provided during the training.

## Evaluation

A dedicated session for **feedback and valediction** will be conducted. Participants will fill out an **evaluation form** to assess the effectiveness of the training.

## Attendance & Certification

- Attendance **before and after lunch** is mandatory for certification.
- Participants who complete the programme successfully will receive an official **Certificate of Participation** from NIDM.

## Training Methods

The training will include a mix of:

- ✓ **Classroom Lectures**
- ✓ **Case Study Discussions**
- ✓ **Group Exercises**
- ✓ **Video Demonstrations**

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## **Organizing Team**

### **Patron**

**Shri Safi Ahsan Rizvi, IPS**  
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### **Programme Coordinator**

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