

सफ़ी एहसान रिज़वी, आ. पु. से.

कार्यकारी निदेशक

Safi Ahsan Rizvi, IPS

Executive Director



राष्ट्रीय आपदा प्रबंधन संस्थान
National Institute of Disaster Management

(गृह मंत्रालय, भारत सरकार)

Ministry of Home Affairs, Govt. of India

प्लॉट नं. 15, ब्लॉक बी, पॉकेट 3,
सेक्टर 29, रोहिणी, दिल्ली - 110042

Plot No. 15, Block B, Pocket 3,
Sector 29, Rohini, Delhi-110042

NIDM/EDRM/Flashfloods/GS/2025-26

September 8, 2025

Dee Piyush,

The National Institute of Disaster Management (NIDM) is organizing a three-day national training programme titled "**Flash Floods and GLOF Risk Reduction at Vulnerable Locations along Mountain River Basins**" from **October 29 - 31, 2025** at **NIDM, Delhi**. The programme will convene key line departments and response agencies from Himalayan States/UTs to strengthen institutional capacity for managing Glacial Lake Outburst Floods (GLOFs) and flash floods.

2. The course is aligned with **NDMA's Guidelines on Management of GLOFs (2020)** and Govt. of India's **National GLOF Risk Mitigation Programme (NGRMP)**. It covers hazard and risk assessment, monitoring and early warning, structural and non-structural mitigation, community preparedness, and coordinated response. Given the mountainous terrain and glacial lake systems in Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh, this training is particularly pertinent.

3. In this regard, it is requested to facilitate nominations of **two mid-career officials** from the **NDRF 2nd, 12th, 13th, 14th, 15th Battalions** placed in the states and UT namely, **J&K, Ladakh, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh, along with a reserve candidate.**

4. NIDM will host all participants on campus and provide necessary boarding and lodging facilities. However, travel arrangements and expenses shall be borne by the respective State/UT. The **concept note along with schedule and other registration details** can be accessed by scanning the below given **QR Code**.

5. I look forward to your cooperation in sharing the confirmation of the nominations preferably by **October 10, 2025**. For any assistance/enquiry, the nominated participant/concerned organization may be advised to write an email to Dr. Gagandeep Singh, Assistant Professor at gagandeep.nidm@nic.in and contact at +91-9760798654.

With regards,

(Safi Ahsan Rizvi)

Shri Piyush Anand, IPS
Directorate General, NDRF
6th Floor, NDCC-II Building
Jai Singh Road, New Delhi - 110001



आपदा प्रबंधन महाविचार: पूरा भारत भागीदार

SCHEDULE

29/10/2025 (Wednesday)

Time	Session Topics	Resource Person
1000- 1100	Welcome and about the Programme Address Address Keynote Address Inaugural Address	Dr. Gagandeep Singh, Assistant. Prof., NIDM Col. Manoram Yadav, Joint Director, NIDM Shri Randeep Rana, Senior Advisor, NIDM TBD Shri Safi Ahsan Rizvi, IPS, Executive Director, NIDM
1100 - 1115	Tea Break	
Learning Unit 1	Understanding GLOF & Flash Flood Hazards	
1115 -1300	Overview of Flash Floods and GLOF Hazards Objectives: participants will be able to <ul style="list-style-type: none"> • Understand and describe flash floods and GLOFs • Explain key drivers and recent case histories (Kedarnath 2013, Chamoli 2021, Sikkim 2023). • Relate these hazards to climate change impacts in the Himalayas. 	Dr. Gagandeep Singh, Asstt. Prof. NIDM
1300 - 1400	Lunch	
1400 - 1515	Glacial Lake Dynamics & GLOF Triggers Objectives: Participants will be able to: <ul style="list-style-type: none"> • Differentiate types of glacial lakes and their hazard potential. • Identify common triggers of GLOFs (avalanches, landslides, heavy rain). • Explain why moraine dams are inherently weak. 	NIH/ GSI/ WIHG (TBD)
1515– 1530	Tea Break	

1530-1700	<p>Hazard Mapping & Vulnerability Assessment</p> <p>Objectives: Participants will be able to:</p> <ul style="list-style-type: none"> • Interpret hazard/risk maps of high-risk lakes. • Identify vulnerable downstream communities and infrastructure. • Explain how inventories and risk ranking support mitigation planning. 	NIH/ GSI/ WIHG (TBD)
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30/10/2025 (Thursday)

Time	Session Topics	Resource Person
1000-1015	Recap	Participants
Learning Unit 2	Risk Mitigation & Policy Frameworks	
1015-1130	<p>NDMA Guidelines on Management of GLOFs (2020)</p> <p>Objectives: Participants will be able to:</p> <ul style="list-style-type: none"> • Summarize key provisions of the 2020 NDMA GLOF Guidelines. • Identify roles of central, state, and local agencies. • Relate guidelines to their departmental responsibilities. 	Dr. Gagandeep Singh, Asstt. Prof. NIDM
1130-1145	Tea Break	
1145-1300	<p>National GLOF Risk Mitigation Programme (NGRMP)</p> <p>Objectives: Participants will be able to:</p> <ul style="list-style-type: none"> • Describe NGRMP components (risk assessment, EWS, mitigation, capacity). • Recognize funding and implementation mechanisms. • Align state-level strategies with the NGRMP framework. 	Dr. Sweta and Shri Ashok Kumar, NDMA
1300-1400	Lunch	
1400-1515	Early Warning & Monitoring Systems	Shri Sandeep Tambe, IFS, Sikkim (TBC)

	<p>Objectives: Participants will be able to:</p> <ul style="list-style-type: none"> ● Explain how GLOF monitoring and EWS function. ● Evaluate strengths/limitations of remote sensing & ground sensors. ● Propose community-based warning dissemination measures. 	
1515-1530	Tea Break	
1530-1700	<p>Structural & Non-Structural Mitigation Measures (Sikkim)</p> <p>Objectives: Participants will be able to:</p> <ul style="list-style-type: none"> ● Differentiate between structural and non-structural measures. ● Provide examples of mitigation measures for risky lakes. ● Recommend feasible interventions for local contexts. 	Shri Sandeep Tambe, IFS, Sikkim (TBC)

31/10/2025 (Friday)

Time	Session Topics	Resource Person
1000-1015	Recap	Participants
Learning Unit 3	Preparedness, Response & Strategy Development	
1015- 1130	<p>Community Preparedness & Capacity Building</p> <p>Objectives: Participants will be able to:</p> <ul style="list-style-type: none"> ● Identify approaches for community awareness and drills. ● Integrate indigenous knowledge into preparedness planning. ● Propose 2–3 actionable awareness initiatives for their state. 	Dr. Sushma Guleria, Asstt Prof. NIDM
1130-1145	Tea Break	
1145-1215	<p>Emergency Response & Incident Management</p> <p>Objectives: Participants will be able to:</p> <ul style="list-style-type: none"> ● Outline SOPs for GLOF/flash 	Shri Shekher Chaturvedi, Asstt. Prof., NIDM

	<p>flood response under ICS.</p> <ul style="list-style-type: none"> ● Recognize agency roles (DM, SDRF, NDRF, BRO). ● Sequence actions from warning to rescue/relief effectively. 	
1215-1315	Lunch	
1315-1515.	<p>Simulation Exercise- Mitigation and Coordinated response to an Imminent GLOF</p> <p>Objectives: Participants will be able to:</p> <ul style="list-style-type: none"> ● Formulate state-level GLOF risk mitigation strategies ● Develop a quick action response plan. 	NIDM Team
1515-1700	<p>Summing up Address</p> <p>Address</p> <p>Address</p> <p>Valedictory Address</p> <p>Vote of Thanks</p>	Dr. Gagandeep Singh, Asstt. Prof. NIDM Col. Manoram Yadav, Joint Director, NIDM Shri Randeep Rana, Senior Advisor, NIDM Shri Safi Ahsan Rizvi, IPS, ED NIDM YP, NIDM

NATIONAL INSTITUTE OF DISASTER MANAGEMENT (NIDM)
Ministry of Home Affairs, Govt. of India, New Delhi

Nomination Form

Name of the Programme: 3 days Training programme on **Flash Floods and GLOFs Risk Reduction at Vulnerable Locations along Mountain River Basins**” from 29-31 October 2025.

Venue: NIDM, Rohini Campus, Delhi.

Name of the Participant: _____

Designation: _____ **Level:** _____ **Group:** _____ **Date of Birth/Age:** _____

Name and Address of the Organization: _____

Residential Address: _____

Telephone: STD Code: _____ **Office:** _____ **Residence:** _____

Mobile: _____ **Email:** _____

Blood Group: _____ **Alternative Number:** _____ **Any kind of Allergies:** _____

Expectations from the programme: _____

In what way do you think that this training programme will be useful?

Accommodation requirement only for outstation participants during the Training Programme (Required / not required) ?

Date: _____

**Name, Designation and
Signature of the Nominating
Authority**

Venue Address:

National Institute of Disaster Management, Ministry of Home, Affairs, Govt. of India, Plot No. 15, Block-B,
Pocket-3, Sector-29 Rohini Delhi-110042,
Dr. Gagandeep Singh, Assistant Professor, NIDM (gagandeep.nidm@nic.in)

Training Programme on Flash Floods and
GLOFs Risk Reduction at Vulnerable Locations
Along Mountain River Basins – Concept Note

**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**

Training Programme on Flash Floods and
GLOFs Risk Reduction at Vulnerable Locations
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Organizing Team

Patron

Shri Safi Ahsan Rizvi, IPS
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ed.nidm@nic.in

Programme Coordinator

Dr. Gagandeep Singh
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