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Concept Note on

9th Comprehensive Course on Disaster Risk Management

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1. Introduction

India's diverse geography and dense population render it highly vulnerable to a wide spectrum of natural and human-induced disasters. In recent years, the frequency and intensity of such events have surged, threatening human lives, infrastructure, and ecosystems. Climate change has further amplified these risks, intensifying floods, cyclones, droughts, heatwaves, and landslides across regions.

The UNDRR Global Assessment Report (GAR) 2025: *Resilience Pays: Financing and Investing for our Future*, underscores the growing global challenge, estimating that direct disaster losses now exceed $202 billion annually, while total economic costs surpass $2.3 trillion. According to official data from national authorities, 27 of India's 36 States and Union Territories are disaster-prone with 58.6% of landmass vulnerable to earthquakes, 12% to floods, and over 5,700 km of coastline exposed to cyclones and tsunamis. Over the past two and a half decades (2000–2025), India has faced numerous major disasters, resulting in significant loss of lives, infrastructure damages and enormous economic losses (NDMA & MHA official reports).

Table 1. Overview of Major Disaster Types and their Impacts in India (2000–2025)

Disaster Type	Average Annual Incidence/ Area Prone	Key Impacts (Illustrative Examples)	Recent Trends/Key Considerations (2000-2025)
Earthquakes	58.6% of landmass in seismic zones II-V	Structural collapses, fatalities, injuries, landslides, infrastructure damage (roads, bridges), economic disruption.	Increased awareness post-Bhuj (2001); focus on seismic retrofitting, early warning development (e.g., Uttarakhand), and stricter building codes in vulnerable zones.
Floods (Riverine, Flash, Urban)	12% of landmass vulnerable	Displacement, fatalities, crop destruction, damage to infrastructure, waterborne diseases, disruption	Increasing frequency and intensity of flash floods and urban flooding due to extreme rainfall events (e.g., Chennai 2015, Kerala 2018, Delhi 2023), exacerbated by unplanned

		of livelihoods.	urbanization and climate change.
Cyclones/ Storms	5,700 km of coastline vulnerable	Wind damage, storm surge, heavy rainfall, coastal erosion, power outages, damage to housing and agriculture, displacement.	More rapid intensification of cyclones (e.g., Fani, Amphan, Biparjoy) due to warmer ocean temperatures; improved early warning systems and evacuation efforts reducing fatalities but economic losses remain high.
Droughts	68% of cultivable land drought-prone	Crop failure, water scarcity, livestock deaths, food insecurity, migration, economic distress, increased farmer suicides.	Recurring droughts (e.g., 2002, 2015-16, 2018-19, 2023) impacting large agricultural areas; emphasis on water conservation, climate-resilient agriculture, and drought-resistant crops.
Heatwaves	Affects large parts of central, northern, and western India annually	Heatstroke, dehydration, increased mortality (especially among vulnerable populations), agricultural stress, increased energy demand, forest fires.	Significant increase in frequency, duration, and intensity of heatwaves (e.g., 2022, 2023-24) linked to climate change, leading to public health emergencies and impacts on labor productivity.
Landslides	~15% of hilly regions	Road blockages, destruction of homes, fatalities, disruption of communication and transport, altered river courses, GLOFs.	Frequent occurrences in Himalayan regions (e.g., Uttarakhand, Himachal Pradesh, Sikkim) and Western Ghats; exacerbated by heavy rainfall, deforestation, and unscientific construction practices.

Forest Fires	Widespread forest fires across regions (e.g., Uttarakhand, Odisha, MP)	Air pollution, biodiversity loss, destruction of forest resources, impact on livelihoods, exacerbation of climate change.	Growing problem, often linked to prolonged dry spells and human activity; challenges in rapid detection and control.
Industrial/ Chemical Accidents	Concentrated in industrial belts	Explosions, toxic gas leaks, environmental contamination, fatalities, long-term health effects.	Ongoing risk (e.g., Vizag gas leak 2020) requiring robust safety regulations, emergency preparedness plans, and regular drills.

This escalating risk landscape demands a paradigm shift from reactive relief to proactive risk reduction, resilience building, and adaptive planning. The 9th Comprehensive Course on Disaster Risk Management has been designed to equip professionals with the knowledge, tools, and strategies to address complex disaster–climate challenges through integrated, science-based, and community-centered approaches.

2. Rationale

The increasing frequency and intensity of natural and anthropogenic hazards, compounded by climate change, rapid urbanization, and environmental degradation, have significantly heightened community vulnerability. This evolving risk landscape underscores the urgent need to strengthen disaster preparedness and mitigation capacities across all levels of governance.

Historically, disaster management approaches were largely reactive, centred on post-disaster relief and rehabilitation. However, modern Disaster Risk Management (DRM) emphasizes proactive risk reduction focusing on vulnerability assessment, early warning systems, resilient infrastructure, and community awareness. Achieving this transition requires a trained and skilled workforce capable of integrating scientific, technical, and social dimensions of risk management.

Today, managing disasters is a highly complex and multidisciplinary endeavour, demanding coordination across sectors such as health, infrastructure, environment, and governance, while leveraging advanced tools like Geographic Information Systems (GIS), remote sensing, and data analytics. Many developing regions continue to face shortages of trained human resources, resulting in critical gaps in preparedness and response.

Global frameworks such as the Sendai Framework for Disaster Risk Reduction (2015–2030) and the Sustainable Development Goals (SDGs) further emphasize the importance of institutional capacity-

building and professional training. In this context, the National Institute of Disaster Management (NIDM) proposes to organize a **two-week "9th Comprehensive Course on Disaster Risk Management"** in New Delhi to enhance the competencies of professionals engaged in disaster risk reduction, resilience building, and sustainable recovery.

3. Aim of the Course

The overarching aim of the "9th Comprehensive Course on Disaster Risk Management" is to enhance the knowledge, skills, and capacities of disaster management professionals and stakeholders to effectively understand, assess, plan for, respond to, and recover from diverse disaster events. The course seeks to foster a proactive and holistic approach to DRR, climate change adaptation, promoting resilience building at all levels of governance and community engagement, in line with national and global frameworks.

4. Learning Objectives

By the end of this course, participants will be able to:

- Acquire in-depth understanding of the core concepts of DRR, analyze global and national policy frameworks, and understand the institutional landscape governing disaster management.
- Apply methodologies for comprehensive Hazard, Risk, Vulnerability, and Capacity Assessments (HRVCA) across diverse hazards.
- Command principles of emergency response operations, coordination mechanisms, and immediate post-disaster assessment, while also planning for sustainable recovery, rehabilitation, and reconstruction with a "Build Back Better" approach.
- Offer insight into the 'Build Back Better' approach, and introducing financial risk management
- Integrate DRR into broader development planning and sector specific policies.

5. Target Group

The "9th Comprehensive Course on Disaster Risk Management" is primarily designed for mid to senior-level professionals and practitioners actively involved in various facets of disaster management and related fields. This includes government officials from SDMAs, DDMAs, allied ministries; personnel from emergency response forces (e.g., NDRF, SDRF); a few selected academics; and representatives from Non-Governmental Organizations (NGOs) and UN agencies.

6. Methodology

The "9th Comprehensive Course on Disaster Risk Management" will employ a highly interactive, participatory, and blended learning methodology designed to facilitate deep understanding, practical application, and peer-to-peer learning. The pedagogical approach will be a judicious mix of theoretical exposition and practical exercises, ensuring that participants gain both conceptual clarity and actionable skills. Key methodologies include:

a) Blended Learning - The course employs a mix of teaching methods to provide both a solid theoretical foundation and hands-on practical experience. These methods include:

- **Expert Lectures:** Presented by domain specialists, government representatives, and scholars, covering fundamental subjects in disaster risk management.
- **Panel Discussions:** Interactive conversations among diverse stakeholders addressing challenges and advancements in Disaster Risk Management (DRM)
- **Case Study:** Centered on real-life scenarios emphasizing examples from practice

b) Experiential and Participatory Learning

- **Group Activities:** Engaging in simulations and role-playing to promote collaboration and real-time problem-solving skills.
- **Interactive Sessions:** Guided Q&A, scenario-based drills, and collaborative brainstorming to deepen understanding.
- **Hands-On Exercises:** Practical tasks like mock disaster responses, field mapping, and developing disaster preparedness plans.

c) Technology-Enabled Training

- **Application of GIS, Remote Sensing Technology:** Training focused on utilizing these tools for risk assessment and hazard mapping.
- **Multimedia Resources:** Employing awareness films, documentaries, and digital media to boost engagement and understanding.

d) Field Exposure and Demonstrations

- **Field Visits:** Organized visits to the National Disaster Response Force (NDRF), India Meteorological Department (IMD), and National Control Service (NCS).
- **Live Demonstrations:** Practical sessions showcasing emergency response techniques such as fire safety and search and rescue, First-aid, CPR-hands on learning, Counselling techniques etc.

e) Evaluation and Feedback Mechanism

- Conduct daily feedback sessions to adjust teaching approaches and respond to participant feedback.
- Perform a final review and provide recommendations to support the ongoing growth and sustainability of DRM initiatives.

7. Structure of the Course

The "9th Comprehensive Course on Disaster Risk Management" is meticulously structured into a modular format to ensure a comprehensive and progressive learning experience. The training spans

two weeks (11 working days) and is organized into ten distinct modules. Each module is designed to cover specific thematic areas of disaster risk management, moving systematically through the entire disaster management cycle and integrating crucial cross-cutting issues. This structure facilitates a deep dive into foundational concepts, practical applications, policy frameworks, and real-world challenges, culminating in a capstone project for hands-on experience. The training methodology emphasizes interactive sessions, case studies, workshops, and a dedicated field visit to maximize learning outcomes. The detailed breakdown of modules, their scope, and individual sessions is presented in the matrix below:

Table 2. Comprehensive Course Module Matrix: Disaster Risk Management

Module Name	Inclusions / Scope
Module 0: **Orientation & Course Framework**	Introduction to the course, expectation setting, pre-assessment, ice-breaking, and comprehensive overview of the Disaster Management Cycle and course methodology.
Module 1: **Foundations of Disaster Risk Reduction (DRR)**	Core concepts of DRR, hazard, vulnerability, capacity, risk, resilience. Evolution of disaster management paradigms (from relief to risk reduction). Introduction to global and national DRR frameworks.
Module 2: **Institutional & Policy Framework for DRR**	Detailed exploration of international, national (NDMA, SDMAs, NDMP), and local institutional frameworks. Legal and policy instruments, roles and responsibilities of various stakeholders (government, civil society, private sector, self-help groups, etc.).
Module 3: **Hazard, Risk, Vulnerability & Capacity Assessment (HRVCA)**	Methodologies for assessing multi-hazards. Techniques for vulnerability and capacity assessment. Introduction to GIS, Remote Sensing, and other technological tools for HRVCA.
Module 4: **Disaster Preparedness & Mitigation Strategies**	Comprehensive coverage of pre-disaster measures: Early Warning Systems (EWS) for various hazards, structural and non-structural mitigation, infrastructure resilience, community-based preparedness, public awareness, and education.
Module 5: **Disaster Response Operations &** ***Field Visit***	Principles of emergency response, Incident Response System (IRS), coordination mechanisms (EOCs), search and rescue (SAR), rapid damage and needs assessment (RDANA), emergency communication, logistics, and practical field exposure.
Module 6: **Disaster Recovery & Reconstruction**	Principles of post-disaster recovery, rehabilitation, and reconstruction. PDNA, Focus on "Build Back Better" (BBB) approaches, livelihood restoration, psychosocial support, and long-term sustainable development.
Module 7: **Climate Change Adaptation & Resilience Building**	Understanding climate change impacts on disaster risk. Strategies for climate change adaptation (CCA), including Nature-Based Solutions (NbS). Concepts of risk financing,

	disaster insurance, and innovative funding mechanisms for resilience.
Module 8: Cross-Cutting Issues & Mainstreaming DRR	Integration of DRR into development planning, gender and inclusive approaches in DRR, role of technology and innovation, and mainstreaming DRR into higher education curricula and institutional policies.
Module 9: **Valedictory**	Formal closing ceremony, addresses by dignitaries, certificate distribution, and networking.

8. Expected Outcomes

The "9th Comprehensive Course on Disaster Risk Management" is expected to yield significant and tangible outcomes, strengthening individual capabilities and the broader disaster management ecosystem. Specifically, the course aims to:

- **Elevate DRR Expertise:** Enhance participants' knowledge, analytical skills, and practical capabilities across all phases of the disaster management cycle, enabling more effective planning, response, and recovery.
- **Strengthen Collaborative Action:** Foster improved inter-agency coordination and promote integrated, inclusive approaches among diverse stakeholders (government, NGOs, private sector, academia) to build collective resilience.
- **Advance National & Global DRR Goals:** Contribute directly to building a more prepared and resilient India by equipping professionals to implement proactive risk reduction strategies and align with national priorities and international frameworks like the Sendai Framework and SDGs.

9. Cultural Evening

To enrich the learning experience and foster camaraderie among participants from diverse backgrounds, a dedicated Cultural Evening will be organized. This event will provide an informal platform for participants to interact, network, and showcase the rich cultural diversity of their respective regions. It aims to build stronger interpersonal bonds, promote cross-cultural understanding, and create a more relaxed and engaging environment that complements the rigorous academic sessions of the course. The evening may include cultural performances, traditional music, and an opportunity for participants to share aspects of their local heritage.

10. Registration Details

- **Online Pre-registration:** The participants/ concerned organizations may fill up the Google Form via this weblink: https://forms.gle/ThG2JoB4tFuRsSCaA 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.

11. Boarding and Lodging

All participants are required to register through the QR code provided above in the concept note. There is no course fee; incomplete registration forms will be rejected. Once the completed nomination form is submitted, confirmation will be communicated via email. Lodging and boarding for the selected candidates will be arranged at the NIDM Rohini Guest House. No TA/DA will be provided by the host institution.

Note: ***Please don't proceed to join the course without the confirmation E-mail.***