



# **ANNUAL REPORT 2023-2024**



**NATIONAL DISASTER MANAGEMENT AUTHORITY (NDMA)  
GOVERNMENT OF INDIA**





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**NATIONAL DISASTER MANAGEMENT AUTHORITY (NDMA)**

**Government of India**

NDMA Bhawan, A-1, Safdarjung Enclave,  
New Delhi - 110 029





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# Abbreviations

AERB	Atomic Energy Regulatory Board
CBRN	Chemical, Biological, Radiological and Nuclear
CDRI	Coalition for Disaster Resilient Infrastructure
CSSR	Collapsed Structure Search and Rescue
DM	Disaster Management
DPR	Detailed Project Report
EFC	Expenditure Finance Committee
EW	Early Warning
FICCI	Federation of Indian Chambers of Commerce and Industry
GIS	Geographic Information System
GoI	Government of India
HPC	High Powered Committee
IMD	India Meteorological Department
INSARAG	International Search and Rescue Advisory Group
LBSNAA	Lal Bahadur Shastri National Academy for Administration
MFR	Medical First Responder
MHA	Ministry of Home Affairs
NCMC	National Crisis Management Committee
NCRMP	National Cyclone Risk Mitigation Project
NDMA	National Disaster Management Authority
NDRF	National Disaster Response Force
NEC	National Executive Committee
NERMP	National Earthquake Risk Mitigation Project
NGOs	Non-Governmental Organizations
NIDM	National Institute of Disaster Management
OFC	Optical Fiber Cable
R&D	Research and Development
SAR	Search & Rescue
SDRF	State Disaster Response Force
UTs	Union Territories



# CHAPTER: I

## INTRODUCTION

### Vulnerability Profile

- 1.1 India, due to its unique geo-climatic and socio-economic conditions, is vulnerable, in varying degrees, to floods, droughts, cyclones, tsunamis, earthquakes, urban flooding, landslides, avalanches and forest fire. Out of 36 States and Union Territories (UTs) in the country, 27 are disaster prone. 58.6% landmass is prone to earthquakes of moderate to very high intensity; 12% land is prone to flood and river erosion; out of 7,516 km coastline, 5,700 km is prone to cyclones and tsunamis; 68% of the cultivable land is vulnerable to drought, hilly areas are at risk from landslides and avalanches, and 15% of landmass is prone to landslides. A total of 5,161 Urban Local Bodies (ULBs) are prone to urban flooding. Fire incidents, industrial accidents and other manmade disasters involving chemical, biological and radioactive materials are additional hazards, which have underscored the need for strengthening mitigation, preparedness and response measures.
- 1.2 Disaster risks in India are further compounded by increasing vulnerabilities related to changing demographic and socio-economic conditions, unplanned urbanization, development within high-risk zones, environmental degradation, climate change, geological hazards, epidemics and pandemics. Clearly, all these contribute to a situation where disasters seriously

threaten India's economy, its population and sustainable development.

### Genesis of NDMA

- 1.3 The basic responsibility for undertaking rescue, relief and rehabilitation measures in the event of a disaster rests with the State Government. The Central Government supplements the efforts of the State Governments by providing logistic and financial support in case of severe natural calamities. The logistic support includes deployment of aircraft, boats, special teams of Armed Forces, Central Armed Police Forces (CAPFs) and National Disaster Response Force (NDRF), arrangements for relief materials and essential commodities including medical supply, restoration of critical infrastructure facilities including communication network and such other assistance as may be required by the affected States and UTs to meet the situation effectively.
- 1.4 The Government has brought about a change in the approach to disaster management from a relief-centric to a holistic and integrated approach covering the entire gamut of disaster management (prevention, mitigation, preparedness, response, relief, reconstruction and rehabilitation). The approach is based on the conviction that development cannot be sustainable unless disaster mitigation is built in the development process.

1.5 The Government of India (GoI), recognising the importance of Disaster Management (DM) as a national priority, had set up a High Powered Committee (HPC) in August 1999 and a National Committee on Disaster Management in 2001 after the Gujarat Earthquake to make recommendations on the preparation of DM Plans and to suggest effective mitigation mechanisms. However, after the Indian Ocean Tsunami of 2004, the GoI took a defining step in the legislative history of the country, through an Act of Parliament, by creating the National Disaster Management Authority (NDMA) to spearhead and implement a holistic and integrated approach to DM in India.

1.6 The Government of India has enacted the Disaster Management Act, 2005 to provide for the effective management of disasters and for matters connected therewith or incidental thereto. It lays down the institutional mechanism for drawing up

and monitoring the implementation of the disaster management plans, ensuring measures by various wings of the Government for prevention and mitigation of the effects of disasters and prompt response to any disaster situation.

### Constitution of NDMA

1.7 NDMA was constituted on 30th May, 2005 by an Executive Order of the GoI. Subsequently, the Disaster Management Act, 2005 was enacted on 23 December, 2005. NDMA was notified on 27 September, 2006 under the provisions of the Disaster Management Act, 2005.

### Composition of NDMA

1.8 The Prime Minister of India is the ex-officio Chairperson of the NDMA. The detailed composition of NDMA is placed at Annexure I. The current Members and their dates of joining the Authority are given below:

1.	Shri Kamal Kishore	Member (Since 16.02.2015) & HoD (01.10.2021 to 19.05.2024)
2.	Lt Gen Syed Ata Hasnain, PVSM, UYSM, AVSM, SM, VSM & BAR (Retd)	Member (Since 21.02.2020)
3.	Shri Rajendra Singh	Member (Since 02.02.2020)
4.	Shri Krishna Swaroop Vatsa	Member (Since 04.05.2020)

1.9 At the national level, NDMA has the responsibility, inter alia, of laying down policies on disaster management and issuing guidelines to be followed by different Ministries/Departments of the Government of India for the purpose of integrating Disaster Risk Reduction (DRR) measures in their development plans

and projects. It also lays down guidelines to be followed by the States in drawing up their respective State DM Plans and taking measures for preventing disasters or mitigating its impact as well as building capacity for dealing with any disaster as it may consider necessary.

## NDMA Secretariat

1.10 The organizational structure of NDMA was approved by the Union Cabinet in May 2008. The Secretariat is headed by a Secretary with five Joint Secretaries/Advisors including one Financial Advisor. There are ten Joint Advisors (Director level) and fourteen Assistant Advisors (Under Secretary level) along with supporting

staff. The organization is also supported by Senior Research Officers. Disaster being a specialized subject, it has also been ensured that the expertise of Specialists is available on contractual basis. The detailed organization of the NDMA Secretariat has been discussed in a separate Chapter on 'Administration and Finance'. List of Senior Officers is placed at Annexure II.





# CHAPTER: II

## FUNCTIONS AND OBJECTIVES

### Functions of NDMA

2.1 NDMA, as the apex body for DM in India, has the responsibility of laying down the policies, plans and guidelines for DM for ensuring timely and effective response to disasters. Its statutory functions include the responsibility to:

- (a) lay down policies on DM;
- (b) approve the national plan and the plans prepared by the ministries/ departments of the GoI in accordance with the national plan;
- (c) lay down guidelines to be followed by the State authorities in drawing up the State plan;
- (d) lay down guidelines to be followed by the different ministries/ departments of the GoI for the purpose of integrating the measures for prevention of disaster or the mitigation of its effects in their development plans and projects;
- (e) coordinate the enforcement and implementation of the policy and plan for DM;
- (f) recommend provision of funds for the purpose of mitigation;
- (g) provide such support to other countries affected by major disasters as may be determined by the central government;
- (h) take such other measures for the prevention of disaster, or the mitigation,

or preparedness and capacity building for dealing with threatening disaster situation or disaster as it may consider necessary;

- (i) lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management (NIDM);
- (j) exercise general superintendence, direction and control of the National Disaster Response Force (NDRF), constituted under the Act, for the purpose of specialist response to a threatening disaster situation or disaster;
- (k) authorize the concerned department or authority to make emergency procurement of provisions or materials for rescue and relief in threatening disaster situation or disaster;
- (l) recommend guidelines for the minimum standards of relief to be provided to the persons affected by disasters.

2.2 NDMA is mandated to deal with all types of disasters, natural or man-made, whereas, such other emergencies including those requiring close involvement of the security forces and/or intelligence agencies such as terrorism (counter-insurgency), law and order situation, serial bomb blasts, hijacking, air accidents, Chemical, Biological, Radiological and Nuclear (CBRN) weapon systems, mine disasters, ports

and harbour emergencies, forest fires, oil field fires and oil spills will continue to be handled by the extant mechanism, i.e., National Crisis Management Committee (NCMC).

- 2.3 NDMA shall, however, formulate guidelines, facilitate training and preparedness activities in respect of CBRN emergencies. Cross-cutting themes like medical preparedness, psychosocial care and trauma, community-based disaster preparedness, information & communication technology, training, awareness generation, etc. for natural and man-made disasters will also engage the attention of NDMA in partnership with the stakeholders concerned. Resources available with the disaster management authorities at all levels, which are capable of discharging emergency support functions, will be made available to the nodal Ministries/ Agencies dealing with the emergencies at times of impending disaster/ disasters.

### Vision of NDMA

- 2.4 Flowing from the mandate of NDMA and the National Policy on Disaster Management, the vision is:

**“To build a safe and disaster resilient India by developing a holistic, proactive, multi-disaster oriented and technology driven strategy through a culture of prevention, mitigation, preparedness and response”.**

## Objectives of NDMA

### 2.5 The objectives of NDMA are:

- (a) Promoting a culture of prevention, preparedness and resilience at all levels through knowledge, innovation and education.
- (b) Encouraging mitigation measures based on technology, traditional wisdom and environmental sustainability.
- (c) Mainstreaming disaster management into the developmental planning process.
- (d) Establishing institutional and technological frameworks to create an enabling regulatory environment and a compliance regime.
- (e) Ensuring efficient mechanism for identification, assessment and monitoring of disaster risks.
- (f) Developing contemporary forecasting and early warning systems backed by responsive and failsafe communication with information technology support.
- (g) Ensuring efficient response and relief with a caring approach towards the needs of the vulnerable sections of the society.
- (h) Undertaking reconstruction as an opportunity to build disaster resilient structures and habitat for ensuring safer living.
- (i) Promoting a productive and proactive partnership with the media for disaster management.

# CHAPTER: III

## POLICY, PLANS AND GUIDELINES

### National Policy on Disaster Management (NPDM) 2009

- 3.1 National Policy on Disaster Management was approved by the Union Cabinet on 22nd October, 2009 and released on 18th January 2010. It portrays a paradigm shift from erstwhile 'Response-Centric' approach to the holistic management of disasters with emphasis on Prevention, Preparedness and Mitigation.

### National Disaster Management Plan (NDMP)

- 3.2 NDMA had prepared the first National Disaster Management Plan in 2016. The same was revised after extensive consultations in November, 2019. The revised plan includes new hazards [Thunderstorm, Lightning, Squall, Dust Storm, and Strong Wind / Cloudburst and Hailstorms / Glacial Lake Outburst Flood (GLOF) / Heat wave / Biological and Public Health Emergencies (BPHE) / Forest Fire], new chapters (Coherence and Mutual Reinforcement for DRR of the Post-2015 Global Frameworks / Social Inclusion / Mainstreaming DRR) and also includes Climate Change Risk Management as new thematic area for climate risk informed DRR. This NDMP has delineated time bound actions for all concerned Ministries/Departments/Agencies and other stakeholders in order to match it with timelines of Sendai Framework for DRR. Plan has been shared with Central Ministries / Departments, all

States / UTs and other stakeholders so that they develop their plans and strategies accordingly to match the timelines of NDMP 2019 to achieve the Sendai targets.

### National Disaster Management Guidelines

- 3.3 In order to translate the objectives into plans, the NDMA adopted a mission-mode approach involving a number of initiatives with the help of various institutions (administrative, academic, scientific and technical) operating at the National, State and Local levels. As a policy, the central Ministries/Departments and States, have been involved in evolving the guidelines, besides all other stakeholders. These guidelines; which are hazard specific, facility specific and on cross-cutting issues will provide the basis of preparation of plans. Preparation of these Guidelines takes minimum 12 to 18 months, depending upon the complexity of the subject. The approach to formulation of guidelines comprised a 'nine-step' participatory and consultative process with stakeholders as shown in figure.

The process of preparation of guidelines comprises:

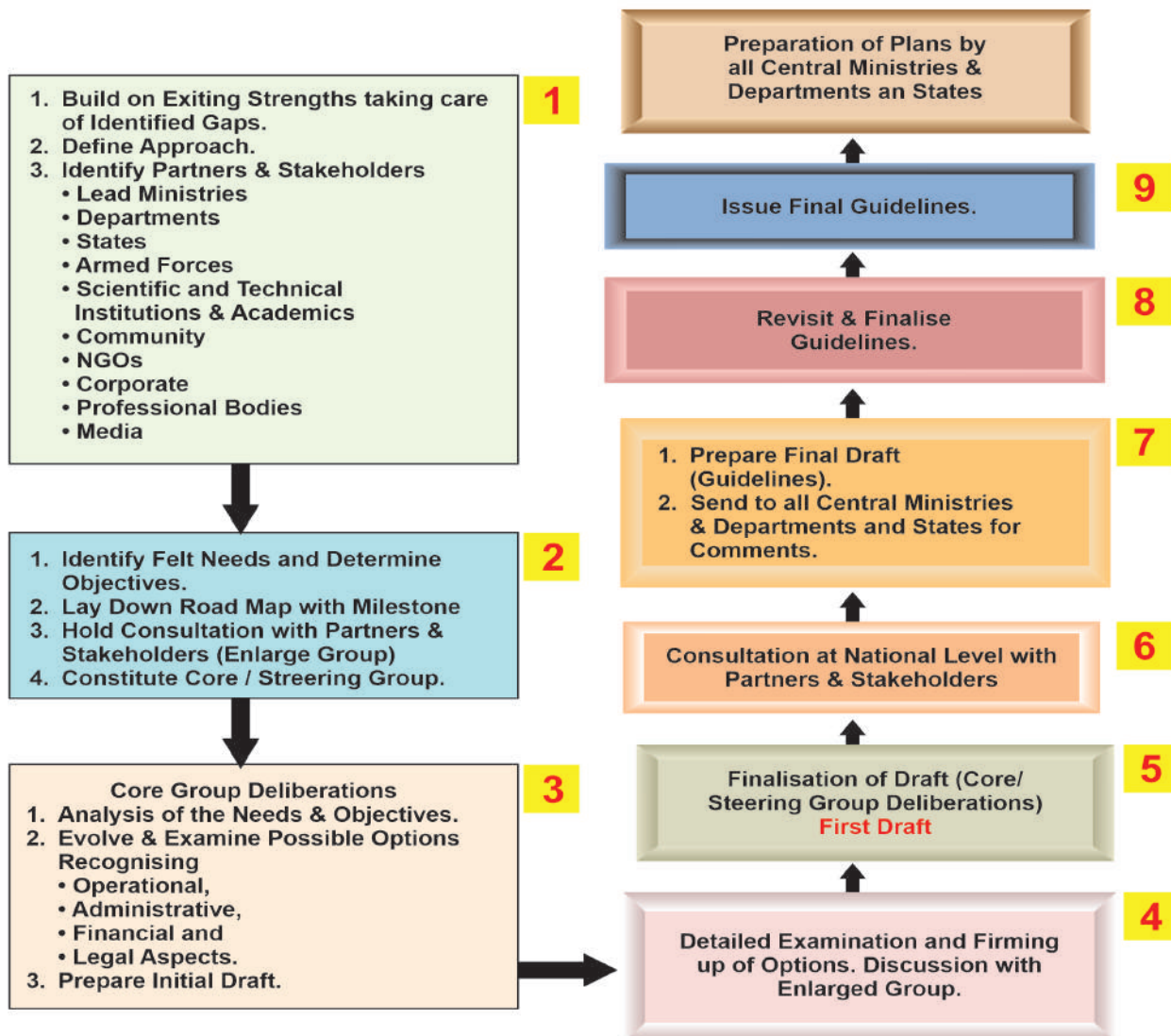
- A quick review of the studies conducted, disaster-wise, of the actions/steps taken so far by various agencies, including the Central Ministries/Departments, States, Scientific and Technical Institutions etc.

- Identification of the residual agenda in terms of operational, administrative, financial and legal issues.
- The drawing up of a roadmap to the destination duly indicating milestones to facilitate easy monitoring.
- In terms of goals and objectives, screening down the destination is to be attained, in the short, as well as long term, duly prioritized as vital, essential and desirable.

- Four important questions were to be answered: i.e. What is to be done?, how it is to be done?, who will do it?, and by when?
- Putting in place an institutional mechanism that oversees the operationalization of this roadmap.

## PROCESS OF PREPARATION OF GUIDELINES

### Nine Steps



### 3.4 Guidelines and Reports & Other documents released:

#### A. Guidelines issued:

List of Guidelines issued by NDMA		
S. No.	National Disaster Management Guidelines on	Month and year of preparation/ release
1.	Management of Earthquakes	April 2007
2.	Management of Chemical (Industrial) Disasters	April 2007
3.	Preparation of State Disaster Management Plans	July 2007
4.	Management of Medical Preparedness and Mass Casualty Management	October 2007
5.	Management of Floods	January 2008
6.	Management of Cyclones	April 2008
7.	Management of Biological Disasters	July 2008
8.	Management of Nuclear and Radiological Emergencies	February 2009
9.	Management of Landslides and Snow Avalanches	June 2009
10.	Management of Chemical (Terrorism) Disaster	June 2009
11.	Psycho-social support and mental health services in disasters	December 2009
12.	Incident Response System	July 2010
13.	Management of Tsunamis	August 2010
14.	Management of the Dead in the aftermath of Disasters	August 2010
15.	Management of Urban Flooding	September 2010
16.	Management of Drought	September 2010
17.	National Disaster Management Information and Communication System	February 2012
18.	Scaling, Type of Equipment and Training of Fire Services	April 2012
19.	Seismic Retrofitting of Deficient Buildings and Structures	June 2014
20.	School Safety Policy	Feb 2016
21.	Hospital Safety	Feb 2016
22.	Minimum Standards of Relief	Feb 2016
23.	Museums	May 2017
24.	Cultural Heritage Sites and Precincts	September 2017
25.	Boat Safety	September 2017
26.	Preparation of Action Plan – Prevention and Management of Thunderstorm & Lightning / Squall/ Dust/ Hailstorm and Strong Wind	March 2019
27.	Temporary Shelters for Disaster - Affected Families	September 2019
28.	Disability Inclusive Disaster Risk Reduction	September 2019
29.	Landslide Risk Management Strategy	September 2019



30.	Preparation of Action Plan – Prevention and Management of Heat Wave (Revised Guidelines).	October 2019
31.	Management of Glacial Lake Outburst Floods (GLOFs)	October 2020
32.	Simplified Guideline for Earthquake Safety of Building from National Building Code of India 2016	May , 2021
33.	National Guidelines for Preparation of Action Plan – Prevention and Management of Cold Wave and Frost	June 2021
34.	National Guidelines for Preparation of Action Plan – Prevention and Management of cold Wave and Frost	June 2021

## B. Reports and other documents issued:

S. No.	Description
1.	Revamping of Civil Defence
2.	NIDM's Functioning
3.	Strengthening of safety and security for transportation of POL tankers
4.	Threats to Municipal Water Supply and Water Reservoir's
5.	Training Regime for Disaster Response
6.	Hand Book for Training and Capacity Building of Civil Defence and Sister Organizations: Part I & II
7.	Managing Crowds at Events and Places of Mass Gathering
8.	Concise Framework for Preparation of Management Plan for Events/ Venues of Mass Gathering
9.	Compendium of relevant Acts/Laws/Rules / Regulations/ Notifications on Disaster Management
10.	Model Framework of District Disaster Management Plan (DDMP) and Explanatory Notes for preparation of DDMP.
11.	Cyclone Hudhud – Strategies and Lessons for Preparing Better & Strengthening Risk Resilience in Coastal Regions of India
12.	Training Manual : How to conduct emergency management exercise
13.	Guidelines on ensuring Disaster Resilient construction of Buildings and Infrastructure
14.	Pilot Project on Capacity Building for advanced Trauma Life Support in India
15.	Capacity Building in DM for Govt. Officials & Representative of Panchayati Raj Institution & Urban Local Bodies at District Level
16.	Roadmap for mitigation of Urban Flood
17.	Gujarat Flood 2017- A case study
18.	Training of Masons on Hazard Resistant Construction
19.	Tamil Nadu Floods: Lessons learnt and Best Practices – A report
20.	Study Report on Gaja Cyclone - 2018

21.	Home Owner's Guide for Cyclone and Earthquake Safety
22.	Earthquake Disaster Risk Index Report
23.	Fire Safety in India (Proceedings of 15th Formation Day of NDMA)
24.	A Preliminary Study to Estimate Temperature Threshold for Heat Wave Warning in India
25.	Pocket Book of Do's and Don'ts on various disasters
26.	A digital book on Do's and Don'ts and FAQ on COVID-19
27.	National Workshop Report for Preparation and Management of Heatwave 2020
28.	Report highlighting Global best practices in Forest Fire Management.
29.	SOP on accepting International Assistance for Disaster Relief and Recovery
30.	Write Up on Disability Inclusive Disaster Risk Reduction (DIDRR)

### 3.5 Workshop/ Training Programmes conducted by NDMA :

#### A. A. Orientation Programme on "Disaster Risk Reduction and Resilience" for Joint Secretaries (Nodal Officers for Disaster Management) in all Ministries/ Departments of Government of India. (Venue: LBSNAA, Mussoorie, 15-16 May, 2023)

It is important for every Ministry / Department of the Government of India to understand the concepts of disaster management and also their roles and responsibilities. NDMA is continuously pushing this agenda with all Ministries/ Departments through various initiatives and programmes from time to time. In order to give due attention to the issues relating to DRR, all the Ministries and Departments have nominated a Nodal Officer for Disaster Management, not below the rank of Joint Secretary, as directed by the Cabinet Secretary.

As per Section 37 (1) (a) of the DM Act, 2005, every Ministry/Department of the Government of India is mandated to prepare a DM Plan. NDMA is approving authority for the Disaster Management Plans prepared by Ministries/Departments.

NDMA has been facilitating Ministries / Departments in preparation of their DM Plans and in the process has also developed a template for preparation of DM Plans by the Ministries/Departments along with a set of 'Frequently asked Questions (FAQs)'. Some of the Ministries/Departments have prepared their Disaster Management Plan, some are in the process and some are yet to make it.

In this context, NDMA also organized two workshops earlier on 10-11 Oct, 2019 and 2 Mar, 2022, with the Nodal Officers for preparation of the Disaster Management Plans of Ministries/Departments of Government of India. The third workshop for the Nodal Officers of Ministries and Departments of GoI was organized in collaboration with the Centre for Disaster Management (CDM), LBSNAA, Mussoorie at LBSNAA, Mussoorie on 15-16 May, 2023. In this orientation programme, the Nodal Officers were familiarized with the concept and practices of disaster management in the country and also on their disaster management plans through some practical exercise during these two days. There were 34 participants in the programme from various Ministries/ Departments of GoI. The nodal officers

also shared their concerns with regard to disaster risk reduction measures in their Ministry/Department and challenges faced by them.

**B. Orientation workshop at NDMA on Template for Preparing 'Proposal for Drought Mitigation under NDMF as per the recommendation of XV Finance commission on 7th July, 2023 at NDMA Bhawan.**

1. The Fifteenth Finance Commission has recommended allocation from National Disaster Mitigation Fund (NDMF) of Rs 100 crore each to twelve most drought affected States (Andhra Pradesh, Bihar, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Telengana, and Uttar Pradesh) for 5 years from 2021-22 to 2025-26 (aggregating to Rs. 1200 crore) in order to develop district level drought mitigation plans to address the challenges posed by successive droughts. To enable these States to access this 'Catalytic assistance to twelve most drought-prone States - Rs. 1200 crores' available under NDMF, a core-group constituted by NRAA on 9th May 2023 had developed a template for 'Proposals for Drought Mitigation under NDMF as proposed by the Fifteenth Finance Commission – 2021-2026'. The template is to be utilized by the State governments to prepare their respective Drought Mitigation Plans to access the funds available under NDMF.
2. NDMA and National Rainfed Area Authority (NRAA) jointly conducted a half-day Orientation Session on 7th July, 2023, in Tapovan, NDMA Bhawan, to inform the representatives from

States [Principal Secretaries, Dept. of Revenue (Disaster Management) and Department of Agriculture] about this template and inform them about further processes for preparing Drought Mitigation Plans. The session was attended by representatives from all twelve states, along with govt. and private institutions that may support the State in preparing their proposals using the template. The States and institutions also presented the existing work undertaken by them for drought mitigation and gave a brief about the probable future interventions.

3. Several observations/ comments/ suggestions were provided by the participants on the template. Through mutual agreement, a timeline for submission of draft proposal, resolution of possible grievances raised by the States, and submission of final proposal to NDMA was decided. It was also decided that a communication channel/ resource directory may be developed for inter-state solution exchange among State Governments, Institutions, and other stakeholders to promote mutual sharing and replication of good practices for drought mitigation.

**C. National Disaster Management Information System (NDMIS) Training/ Workshop held in 2023-24:**

1. Online training and meeting have been conducted on NDMIS with all the other states/UTs to sensitize the officials on the portal as well as to document the issues states/UTs facing in using NDMIS Portal. Training on Disaster Loss and Damage Database for SDMA and Revenue Department Odisha was conducted on November 18, 2023.



2. OSDMA had organised a training programme for the District Project Officers (DPOs) and DRR Consultants (DRRCs) in Bhubaneswar on November 18, 2023. The DPOs and DRR Consultants were oriented on uploading of data (Loss and Damage) in the NDMIS

Portal for Progress of SFDRR. A team consisting of Sh. Abhinav Walia, Sr. Consultant (Disaster Management) from NDMA and Sh. Pawan Arora, Scientific Officer/Engineer-SB from NIC conducted the training at Odisha.



**D. Half day Brainstorming workshop on “Developing Framework for Heat Wave Mitigation” on 9<sup>th</sup> January, 2024 at Tapovan, NDMA Bhawan:**

1. The main objective of this workshop was for developing a Framework for Heat Wave Mitigation and as a pre-event to the Annual Heat Wave Workshop 2024. The framework for heat wave mitigation plan was discussed which included the components of Early Warning System, Health Impact, Public Awareness, Urban Planning, Financing and Monitoring & Evaluation.
2. Dr. Naresh Kumar, IMD made a detailed presentation about the Early Warning System for Heat Waves. The differences between the heat wave patterns for 2022 and 2023 were highlighted and higher mortality in 2023 was attributed to delay in monsoon rains. Recent trends in heat wave as compared to the historical data sets were shown. In addition to Early Warning, Capacity Building, Vulnerability Assessment, Public Awareness and Outreach, Stakeholders Collaboration, Health aspects, Financing of HAPs and Urban Planning were discussed in detail.
3. It was decided that the stakeholders should meet more frequently to find solutions for heat wave preparedness and mitigation at local level. Heat Action Plans should be prepared/ revised by all the 23 heat prone States and Districts regularly. Besides, EWS also needed to be done at local level in a pro-active way to achieve Zero Mortality Target due to Heat Wave in 2024.

**E. National Workshop on Heat Wave 2024:**

National Disaster Management Authority (NDMA) organized a National Workshop on “Management Interventions and Mitigation Strategies for Heat Wave” on 13<sup>th</sup> – 14<sup>th</sup> February, 2024. One of the prime objectives of the National workshop was to collaboratively collect wisdom to develop India’s Framework for heat wave mitigation by bringing together stakeholders from Government and private Institutes, health sector, meteorological department, urban planners, NGOs, and community organizations. The workshop was designed to facilitate discussions on guidelines, policy frameworks, and best practices by bringing together experts from various fields and sectors to review the preparedness of the States for Heat Wave Season 2024. It also aimed to provide a roadmap for holistic heat wave management and mitigation and outline actionable and practical strategies that can be implemented at National, Regional, and Local levels ensuring that the response to heat waves is proactive, efficient, and is sustainable in short, medium and long term.

**The expected outcomes of workshop included:**

1. To help all the vulnerable States / districts in preparation and updating of their Heat Action Plans for 2024 Heat Wave season by including actionable and decision-oriented short and long-term strategies suggested in the workshop.
2. Increased awareness, enhanced knowledge sharing & capacity building, improved policy formulation, showcasing new innovations for Heat wave Management and better

networking & collaboration among key sectors of economy to further enhance

and integrate our capabilities for a heat resilient future.



### 3.6 Formulation of State Disaster Management Plans:

33 out of 36 States / Union Territories (UTs) have their approved State Disaster Management Plan. The erstwhile State of Jammu and Kashmir, which also had approved SDMP, has been bifurcated into two UTs (i) Jammu & Kashmir and (ii) Ladakh. Also, the erstwhile Union Territories (i) Dadra and Nagar Haveli and (ii) Daman and Diu, both of which had approved SDMP, have been merged as one Union Territory i.e. UT of Dadra and Nagar Haveli and Daman and Diu. These three (3) newly created UTs are in the process of preparation of separate SDMP.

### 3.7 Guidelines and other documents under preparation:

#### A. Draft Standard Operating Procedure (SOP) on channelizing Domestic Aid/ Humanitarian Assistance for Disaster Relief and Recovery

The primary responsibility of disaster management encompassing the activities related to rescue, relief, and rehabilitation lies with the State Governments. In order to address these issues in domestic aid, there is a need for the State Governments to develop an appropriate Standard Operating Procedure (SOP) for coordination and management of domestic aid including assessment of requirement, request for aid, receiving aid, sorting, storing, packing, distribution of aid, and management of unused aid. The SOP being prepared by NDMA aims to bridge the gap in the management of domestic aid. The Specific Objectives of this SOP are to:

- i. Provide a framework for channelizing domestic aid which can be adopted by the State Governments and other stakeholders/central Ministries.
- ii. Improve coordination and efficient delivery of assistance.



- iii. Standardize procedures which shall give importance to the mode of delivery of humanitarian assistance for disaster relief.
- iv. Assess the relief needs and provide relief assistance for the disaster affected.
- v. Have protocols and institutional mechanisms at State and District level for receiving, managing and distributing domestic aid.

**B. Loss and Damage including adaptation under the Climate Change Negotiations:**

Dr. Krishna S. Vatsa, Member, NDMA negotiated on loss and damage matters at COP28 which led to establishment of Loss and Damage Fund. The Fund is accountable to and functions under the guidance of the Conference of Parties serving as the meeting of the Parties to the Paris Agreement (CMA). The purpose of the Fund is to assist developing countries that are particularly vulnerable to the adverse effects of climate change in responding to economic and non-economic loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events. The detailed decision text on Loss and Damage Fund adopted at COP 28 can be accessed at webpage <https://unfccc.int/documents/636558>.

Another major outcome related to Loss and Damage is the decision on Santiago network for averting, minimizing and addressing loss and damage to catalyse the technical assistance of relevant organizations, bodies, networks and experts for the implementation of relevant approaches associated with climate change impacts. The host of the Secretariat for the

Santiago Network was finalized at COP 28. The joint consortium of the United Nations Office for Disaster Risk Reduction and the United Nations Office for Project Services have been selected as the host of the Santiago network secretariat for an initial term of five years, with five-year renewal periods.

**3.8 Disaster Management Plan of Ministries/ Departments of Government of India:**

For assistance of the Ministries/ Departments of the Govt. of India in preparation of their Disaster Management Plan (DMP), NDMA formulated a 'Suggested Structure for Disaster Management Plan- Departments/ Ministries in the GoI' and circulated the same to all concerned. This is available on NDMA's web site [www.ndma.gov.in](http://www.ndma.gov.in) under Section Government – DM Plan Templates. A simplified template for DM Plan has also been prepared for Ministries / Departments who are not directly involved in Disaster Management.

A list of Frequently Asked Questions (FAQs) from Ministries on DMP and their answers have been circulated to all Ministries / Departments and also uploaded on NDMA's website under Section Government – DM Plan Templates.

The matter regarding preparation of DMP by the Ministries/Departments of the Government of India as per section 37 of the DM Act is being consistently pursued with them through meetings and D.O. letters.

**As on 31.03.2024**, NDMA has approved the Disaster Management Plan (DMP) of following Ministries / Departments of Govt. of India:

1. Ministry of Corporate Affairs

2. Department of Fisheries
3. Department of Animal Husbandry and Dairying
4. Ministry of Food Processing Industries
5. Ministry of Steel
6. Department of Atomic Energy
7. Department of Agriculture, Cooperation & Farmers Welfare (Common plan of Ministry of Agriculture & Farmers Welfare namely National Agriculture Disaster Management Plan)
8. Department of Agricultural Research and Education (Common plan of Ministry of Agriculture & Farmers Welfare namely National Agriculture Disaster Management Plan)
9. Ministry of Power
10. Ministry of Coal
11. Ministry of Labour and Employment
12. Ministry of Panchayati Raj
13. Ministry of Skill Development & Entrepreneurship
14. Department of Justice
15. Department of Drinking water and sanitation
16. Department of Chemical and Petrochemical
17. Ministry of Environment Forest and Climate Change

**As on 31.03.2024**, NDMA has examined the Disaster Management Plan (DMP) of following Ministries/ Departments of Govt. of India and furnished comments for their revision:

1. Ministry of AYUSH

2. Department of Fertilizers
3. Ministry of Civil Aviation
4. Department of Commerce
5. Department for Promotion of Industry and Internal Trade
6. Department of Telecommunications
7. Ministry of Culture
8. Department of Defence Production
9. Ministry of Earth Sciences
10. Department of Health Research
11. Department of Heavy Industry
12. Department of Internal Security
13. Department of States
14. Department of Official Language
15. Department of Home
16. Department of Jammu, Kashmir and Ladakh Affairs
17. Department of Border Management
18. Ministry of Housing and Urban Affairs
19. Department of School Education & Literacy
20. Ministry of Information and Broadcasting
21. Department of Water Resources, River Development and Ganga Rejuvenation
22. Ministry of Mines
23. Ministry of Minority Affairs
24. Ministry of Petroleum & Natural Gas
25. Ministry of Railways
26. Ministry of Road Transport and Highways
27. Ministry of Women and Child Development
28. Department of Youth Affairs

29. Department of Space
30. Ministry of External Affairs
31. Department of Public Enterprises
32. Department of Rural Development
33. Ministry of Electronics and Information Technology
34. Department of Pharmaceuticals
35. Department of Land Resources
36. Department of Economic Affairs
37. Department of Consumer Affairs
38. Department of Biotechnology

### 3.9 Schemes under implementation:

#### A. Implementation of the Sendai Framework for Disaster Risk Reduction:

The Scheme – Implementation of the Sendai Framework for Disaster Risk Reduction – was approved in February, 2019 by NDMA at a cost of Rs.2010.6 Lakh for implementation in all the States and UTs for three years during 2018-19 to 2020-21. Implementation period of the entire Scheme has been extended upto FY 2025-26 and States/UTs can implement the Scheme for three years from the date of start of the Scheme.

The Scheme, inter – alia, provides for financial support for hiring of one Disaster Management (DM) professional at SDMA in all States/ UTs. The DM professional will facilitate/ support the State Administration in taking measures for implementation of Sendai Framework for Disaster Risk Reduction. The details of financial support for the components of the Scheme are as under:

- a. Hiring of one Sr. Consultant at the rate of Rs.One Lakh per month.

- b. Hiring of one Data Entry Operator at the rate of Rs.22,000/- per month.
- c. Hiring of the vehicle with a ceiling of Rs.25,000/- per month for the first year, Rs.27, 500/- per month for the second year, and Rs.30,250/- for the third year.
- d. Financial support of Rs.2.0 Lakh (one time) for setting up of the office.

The details of the amount released to States / UTs under the Scheme (**as on 31.3.2024**) are as under:

Total funds released under the Scheme		
Financial Year	Funds re-leased (Rs. in Lakhs)	No of States/ UTs
2018-19	594.56	29 States 2 UTs
2019-20	22.16	3 UTs
2020-21	134.90	7 States 1 UT
2021-22	235.26042	11 States 2 UTs
2022-23	219.014	10 States 3 UT
2023-24	102.68395	5 States & 4 UTs
<b>Grand Total</b>	<b>1308.57847</b>	

- B. **Strengthening of District Disaster Management Authorities (DDMAs) of Hazard Prone Districts out of the 115 identified backward districts:** The Scheme – Strengthening of District Disaster Management Authorities (DDMAs) of Hazard Prone Districts out of the 115 identified backward districts – was approved in February, 2019 by NDMA at a cost of Rs.28.98 Crore for implementation in all the States except Goa, where no backward district is identified, for three years during 2018-19 to 2020-21. Implementation period of the entire Scheme has been extended upto FY 2025-

26 and States/UTs can implement the Scheme for three years from the date of start of the Scheme.

The Scheme provides for financial support for hiring of one Disaster Management (DM) professional at the rate of Rs.70,000/- (Rupees Seventy thousand) per month in each of hazard prone districts out of 115 identified districts in 28 States for the duration of the Scheme. The DM professional will facilitate/support the District Administration in taking measures for implementation of Sendai Framework for Disaster Risk Reduction.

The details of the amount released to States under the Scheme **(as on 31.3.2024)** are as under:

Total Funds released under the Scheme		
Financial Year	Funds released (Rs. in Lakhs)	No of States/ UTs
2018-19	524.30	27 States
2019-20	315.00	18 States
2020-21	221.20	11 States
2021-22	287.00	11 States 1 UT
2022-23	226.80	5 States 1 UT
2023-24	<b>109.90</b>	3 States
<b>Grand Total</b>	<b>1684.20</b>	

### 3.10 Projects completed / under implementation:

**A. Developing framework for Heat vulnerability Mapping and model Heat Action Plan for Indian Cities:** NDMA has awarded the project to Visvesvaraya National Institute of Technology (VNIT), Nagpur for Developing framework for Heat vulnerability Mapping and model Heat Action Plan for Indian Cities at a tentative cost of Rs. 46,94,612/-.

The deliverables of the project include:

- Study showing relationship between Outdoor thermal comfort, Meteorological parameters and morphological parameters.
- Heat Vulnerability map for 2 cities in Vidarbha region.
- Heat Action Plan for a selected city.
- Generic methodology for HV mapping.
- Framework for model HAP.

VNIT submitted “Handbook for Preparation of model Heat Action Plan (mHAP)” for the project and same is under consideration for acceptance by NDMA. The mHAP is a pivotal document that provides guidelines for comprehensive planning of extreme heat at city level. It is aimed at municipal and local authorities, public health officials, urban practitioners and other concerned agencies to plan, implement and manage city level extreme interventions to minimize the negative effects caused by heat waves. Furthermore, it attempts to respond to heat management and heat planning by proposing actions at three distinct timescales i.e short-term (upto 3 years time span), medium term (3 to 5 years time span) and long term (5 to 10 years time span).

mHAP is centred on the applicability of eight core elements across these timescales. Proposed heat management strategies are an integration of structural (cool roofs, heat weather stations, green buildings), and non-structural (heat warning systems, behavioural changes) approaches to create resilient urban spaces and combat extreme heat events. It also proposes the integration of existing policies (e.g., ECBC, green building rating systems, walkability, transit-oriented developments, urban greening, etc.) and local expertise into action plans managing heat risks in an

urban setting requires cross-departmental collaboration. Therefore, mHAP necessitates the joint effort amongst a variety of agencies including meteorological authorities, public health authorities, epidemiological bodies and urban practitioners/planners for successful initiation, implementation and operation of HAP and HHWS.

**B. Compendium of best practices and indigenous technical knowledge with regard to management of forest fire:**

NDMA awarded a project namely preparation of “Compendium of best practices and indigenous technical knowledge with regard to management of forest fire” to FRI, Dehradun in April, 2021 at a tentative cost of Rs.28,49,000/- and the work is under progress. The deliverable of the project will be a report compiling information and analysis on following objectives:

- a. To collect the information on indigenous knowledge and traditional practices of forest fire prevention and control from different States.

- b. To interact with the people (directly/ through questionnaire survey) from fringe forest villages where traditional practices are used for forest fire prevention and control. To compile the indigenous knowledge of fire prevention and control available with village communities living near fringe forest.
- c. To analyse how to mainstream traditional practices into modern firefighting.

**C. Mitigation Project for Forest Fire Management:**

A meeting was held on 16th January 2024, under the Chairmanship of Addl. Secretary (Disaster Management) MHA, for approval of the project “Mitigation Project for Forest Fire Management”. MHA, has recommended the Project, with Budget outlay of 987.37 crore, to be implemented in 146 Most fire prone Districts of 20 States, for placing before High Level Committee (HLC) for approval.



# CHAPTER: IV

## DISASTER RISK MITIGATION PROJECTS/ ACTIVITIES

### National Cyclone Risk Mitigation Project (NCRMP)

4.1 The Government of India had approved the National Cyclone Risk Mitigation Project (NCRMP) with the overall objective of minimizing vulnerability to cyclones and making people and infrastructure disaster resilient in harmony with the conservation of the coastal eco-system in the cyclone hazard prone States/Union Territories of India. The project has four components namely: The project has four components namely:

- i) **Component A:** Early Warning Dissemination System ensuring last mile connectivity
- ii) **Component B:** Cyclone Risk Mitigation Infrastructure like Multi-Purpose Cyclone Shelters, Evacuation/Approach Roads/Bridges, Saline Embankment & Underground Cabling,
- iii) **Component C:** Technical Assistance for Multi-Hazard Risk Management and Capacity Building and
- iv) **Component D:** Project Management and Implementation Support.

4.2 Components A, C & D are fully financed by the Central Government and component B is financed by Central and State Government in the ratio of 75:25. The Central Government share is funded through World Bank assistance (loan). National Disaster Management Authority

is the implementing agency for the project. The project was approved in two phases as Centrally Sponsored Scheme (CSS).

- 4.3 The first phase of NCRMP was approved in January 2011 for the States of Andhra Pradesh & Odisha. The project was completed in December 2018 with a total expenditure of ₹ 2440 crore.
- 4.4 The second phase of NCRMP was approved in July 2015 for the States of Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal at a cost of ₹ 2361.35 crore with project completion date as 15th March 2021. With subsequent revisions in light of the scheme performance, ratings, cancellation of non-started activities as well as surrendering of savings of US\$ 80 million, the outlay was finally revised to ₹ 1864.38 crore with project completion date as March 2023. The grace period for financial closure of the project was up to August 2023. The phase II of the project completed with a total expenditure of ₹1806.84 crore.
- 4.5 Early Warning and Dissemination System (EWDS) has already been installed & commissioned in three Coastal States namely Andhra Pradesh, Odisha and Goa. All the physical work of EWDS work in Karnataka and Kerala has been completed and the final testing is in progress for commissioning. Total 795 nos. of Multi-Purpose Cyclone Shelters (MPCS), 1291.52 Km of Roads, 118.18 Km

of Saline Embankment (SE), 1331.97 Kms. Underground Electric Cabling (UGC) and 36 nos. of Bridges has been constructed under NCRMP

- 4.6 As part of reducing disaster risks and strengthening the capacity of various govt. departments and communities, training and capacity building is one among the subcomponent of the project. 24,007 Govt. officials have been trained through 889 nos. of Capacity Building Trainings on 22 various topics as well as 68,988 community representatives have also got trained through 3,378 Shelter Level Trainings under NCRMP
- 4.7 Apart from that, 795 Cyclone Shelter Management & Maintenance Committees have been constituted across 8 project States to effectively manage the shelter arrangements. Each committee has the participation of various govt. officials, community representatives, women & weaker section representatives etc. The Cyclone Shelters constructed under NCRMP were/are used for various relief

and rehabilitation purposes during the COVID-19 pandemic and recent cyclones.

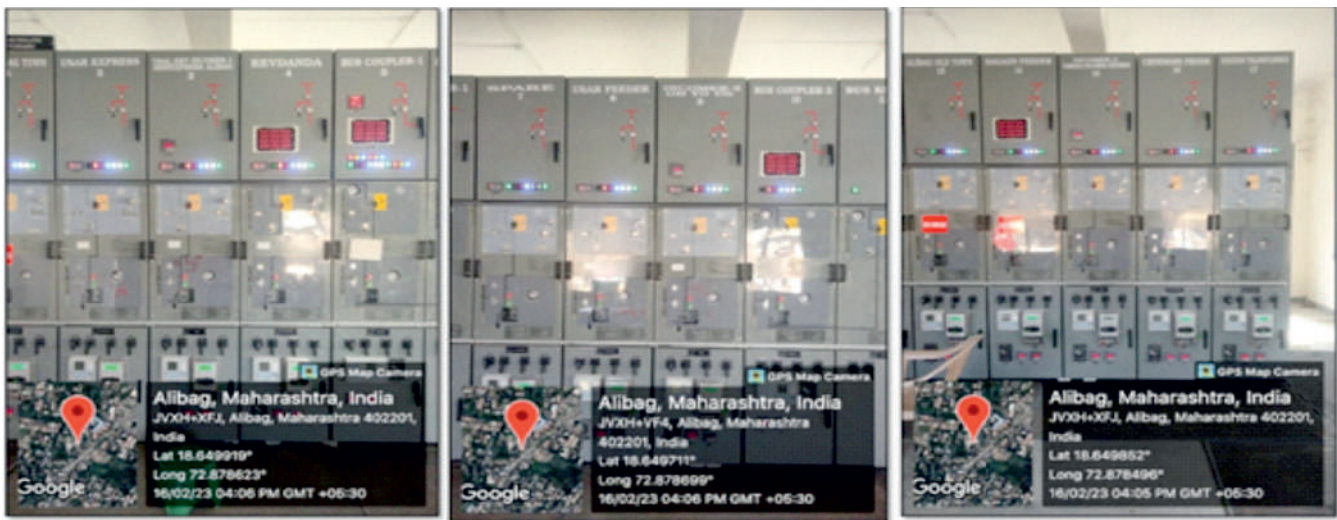
Non-structural interventions taken up in NCRMP are as follows:

- 4.8 Web based Dynamic Composite Risk Atlas & Decision Support System (Web DCRA-DSS) is a real time impact forecast tool for location specific cyclone wind speed and inundation level due to storm surge, cyclone induced rainfall and riverine flood. This information is being used by the States for evacuation planning and response as well as in mitigation planning.
- 4.9 Comprehensive Multi-hazard Risk Financing Strategy (CMhRFS) study to quantify risks and develop strategies for financial risk transfer for States in case of calamities.
- 4.10 Hydro-meteorological Resilience Action Plan (HmRAP) study to strengthen ULBs to effectively plan for and respond to various hazards and climate change in six project coastal cities.



Karnataka Saline Embankment





Under Ground Electrical Cabling Maharashtra



Goa MPCs



Goa EWDS Monopole Tower



Gujarat MPCS



Kerala Cherthala Mararikulam North  
Village MPCS Lat Lon 9° 37' 36.419'N 76° 18'  
13.091"E



Spun Concrete Tower Odisha



West Bengal MPCS Taranagar



## Initiatives by Mitigation Division, NDMA

4.11 Mitigation Division takes up pilot projects and studies on cross cutting themes covering different aspects of natural and manmade disasters including Floods, Landslides, Earthquakes, Chemical, Biological, Radiological and Nuclear Disasters etc. through reputed Institutions/ organizations. Various Projects/ activities undertaken by NDMA are as under:-

### A. CBRN (Chemical, Biological, Radiological and Nuclear)

4.12 Training on Chemical, Biological, Radiological and Nuclear (CBRN) Emergency Management for Emergency handlers at Seaports/Airports:

Capacity building and training at the major airports and seaports is continued to improve the preparedness against CBRN emergency. CBRN training programme covers basic hazards,

safety actions, hands-on field exercises with the target to prepare the ports to prevent and mitigate any CBRN related incidents till the arrival of the trained responders at the incident site. In Phase-1, a total of 25 batches of basic training on CBRN EM completed and approximately 1400 staff members from the various agencies responsible for operation of the ports have been trained by the domain experts and NDRF. In Phase-2, basic training at 38 ports has been completed. During the year 2023-24 (upto 31.03.2024), NDMA has completed training at 29 airports and 09 seaports (MPA (Goa Seaport), Vishakhapatnam Seaport, Kandla Seaport, MIAL (Mumbai Airport), Kochi Airport, Mumbai Seaport Trust, Paradeep Seaport, Kolkata Airport, Chennai Airport, Bhopal Airport, Nagpur Airport, Bangalore Airport, Varanasi Airport, Hyderabad Airport and Delhi airport. In the last quarter of 2023-24 Basic CBRN Emergency Management trainings has been carried out at Amritsar Airport, Madurai Airport, Cochin Port Authority, Mundra Seaport and Krishnapatanam Seaport .



### B. Earthquake

4.13 Development of Teaching Resource Material for Under Graduate Courses in Engineering / Architecture College for Technical Education

- About 58.6% of India's landmass is vulnerable to the threat of moderate

to severe seismic shaking and 80% of Indian population resides in these areas. It is evident from the past earthquake that buildings sustained damages if not designed properly. In most of the cases, it is found that a large number of existing buildings do not have earthquake resistant features

specified in BIS codes. Non-availability of resource material in course curriculum at the undergraduate level in Engineering/ Architecture Colleges is one of the contributing factors in poor design or construction of built environment. Hence, there is a need to prepare course curriculum for undergraduate in the discipline of Civil Engineering/ Architecture.

- The project has been awarded to IIT Bombay. The scope of the project is to develop teaching resource material on five identified subjects i.e. Structure Dynamics and Earthquake Engineering (Core subject); Earthquake Geotechnical Engineering (Elective Subject); Earthquake Resistant Design of RC Structures (Elective Subject); Earthquake Resistant Design of Steel

Structures (Elective Subject); and Design Studio- Earthquake Resistant Structural Configuration (Core subject), thereafter Pilot testing of these courses through one full semester course in engineering and architecture college preferably located in seismic zone IV & V. Faculty members from engineering institutions with relatively higher ranks based on the NIRF ranking trained on the identified subjects through Training of Trainers (ToT) Workshops. In future, the trained faculty members would be expected to provide further training to faculty members of other engineering and architecture colleges. The resource materials have been revised based on the feedback received from the pilot offering and ToT Workshop. The resource material is under process of publication.



**Training of Trainers (ToT) Workshop on Earthquake Resistant Design of RC Structures conducted at IIT Madras**





**Training of Trainers (ToT) Workshop on Architecture Design Studio- Earthquake Resistant Structural Configuration conducted at Guru Gobind Singh Indraprastha University Dwarka, New Delhi**



**Training of Trainers (ToT) Workshop on Structure Dynamics and Earthquake Engineering conducted at IIT Bombay**

#### 4.14 Development of Earthquake Disaster Risk Index Phase II

- Rapid urbanization of Indian cities in the last few decades has increased the demand on housing sector, imposing pressure on construction industry to cater to this demand. More often, proper planning of cities and its infrastructure are not carried out, to meet this demand in less time. This has led to uneven growth of low rise-to-midrise buildings in Tier II cities and midrise-to-high rise buildings in Tier I cities, jeopardising safety of property and life, during disasters. Therefore, there is an urgent need to assess the seismic risk of buildings located in high seismic regions of India, to help towards disaster mitigation of cities reasonably well.
- The main objective of the project is to assess the earthquake risk in cities of India, which will help mitigate negative consequences, prepare, and respond to the next event. The risk index obtained from the study obtained will be mainly the combination of hazard, vulnerability, and exposure to the city. It will provide information to each city of their impending risk involved, and its consequences, help to reduce the social and economic consequences due to an earthquake and gave an Inter-comparison of the risk among the cities as well as guide government agencies for prioritizing disaster preparedness and response measures in the more vulnerable area of the city. NDMA has completed the phase I of the project for 50 cities in 2019 and Phase II of the project is in progress which targets next 16 cities. The project has been awarded to MNIT Jaipur. The project

includes the evaluation of earthquake disaster risk index of cities in terms of a) vulnerability of buildings b) expected level of damage to the buildings c) corresponding expected loss of life and property, as well as preparation of Individual city report with list of major contributing factors to the overall risk, along with a separate report for the policy maker.

#### 4.15 Compendium of Traditional Earthquake Resilient Construction Practices for Knowledge Sharing and Disaster Risk Reduction: Promotion of Traditional Construction Practices

- Many past earthquakes resulted in significant property loss and human lives in the Himalayan region. As a result, communities residing in this region swiftly grasped the fundamental premise of earthquake safety, which states that structural safety is the key to avoiding loss of property and human lives in aseismogenic event. The traditional construction practices, especially in the Himalayan region, are unique as they primarily utilise the locally available material which is very cost effective and eco-friendly. The effectiveness of these traditional technologies has been clearly brought out during recent earthquake disasters. The local traditional construction practice had adapted earthquake-resistant technologies, which are now being lost due to the induction of modern materials and construction techniques in these areas without addressing the seismic safety of modern constructions.
- The scope of the project is to identify and document the traditional building types in the Himalayan region and



develop their structural system classification scheme as well as identify the earthquake-resilient and vulnerable features in the traditional buildings and suggest the appropriate safety measures to reduce their seismic vulnerability. The project was awarded to IIT Ropar in a consortium with IIT Roorkee and AEC Guwahati. The project completed in March 2023 and

on the 19<sup>th</sup> Formation Day of National Disaster Management Authority (September 27, 2023) a “Compendium of Traditional Earthquake Resilient Construction for Knowledge Sharing and Disaster Risk Reduction” was formally released.

4.16 The existing literature suggests the existence of multiple traditional earthquake-resilient building practices in



**Release of the “Compendium of Traditional Earthquake Resilient Construction” report on 19th Formation Day of NDMA**

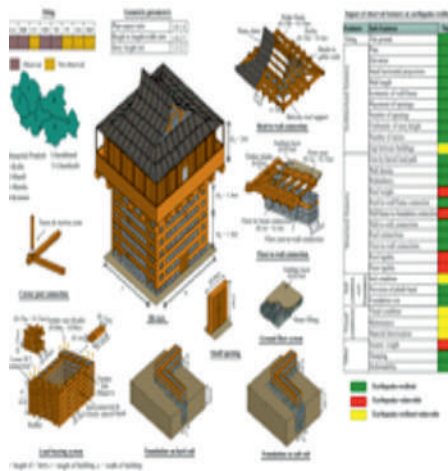
the northwestern Himalayas within India. These traditional building practices mainly include the timber-laced stone masonry without mortar, indigenously known as ‘Koti-banal’ or ‘Kath-kunni’ (Rautela et al. 2009a, Rautela et al. 2009b), the timber frame with dry stone walls indigenously known as ‘Thathara’ (Rahul et al. 2013), the timber braced frame infilled with

brick/stone masonry laid in mud mortar indigenously known as ‘Dhajji-dewari’ (Hicyilmaz et al. 2011), and the timber-laced brick/stone masonry laid in mud mortar indigenously known as ‘Taq’ (Dhandhapany et al. 2019). Similarly, northeast India’s traditional seismically-resilient building practice mainly includes the timber frame infilled with ‘Ekra’ reeds,

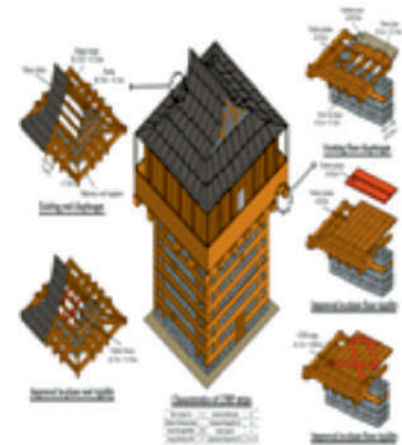
indigenously known as 'Assam-type' or 'Ekra' (Kaushik and Babu2009) housing. Institute team conducted the field visits to document these traditional building typologies and based on the assessment, safety measure to improve the performance of these buildings have been suggested.



**Kath-kunni Construction**



**Key Features**

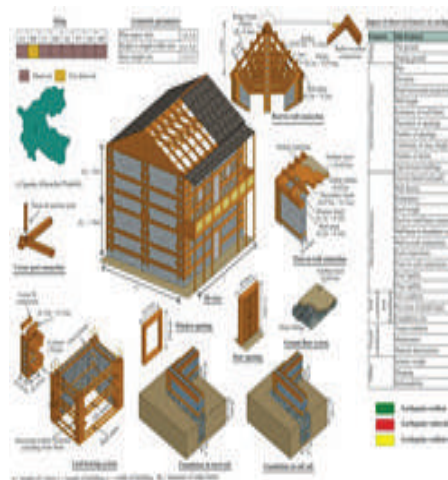


**Suggested Safety Measures**

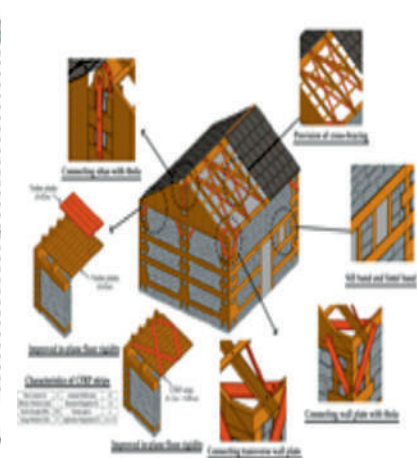
**Kath-kunni construction is one of the oldest forms of traditional construction widely seen in Shimla, Kullu, Kinnaur, and Mandi districts in Himachal Pradesh and Uttarkashi in the state of Uttarakhand.**



**Thathara Construction**



**Key Features**



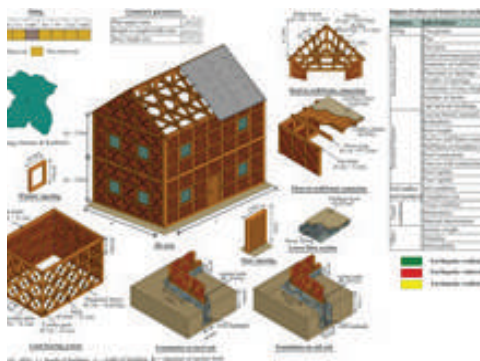
**Suggested Safety Measures**

**Thathara traditional construction practice is one of the most prevalent traditional building typologies observed in the 'Chamba' district of (Fig. 2.25) Himachal Pradesh, India.**

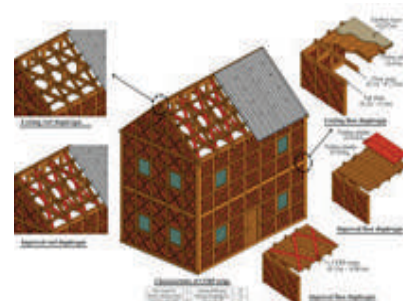




Dhajji-Dewari Construction



Key Features

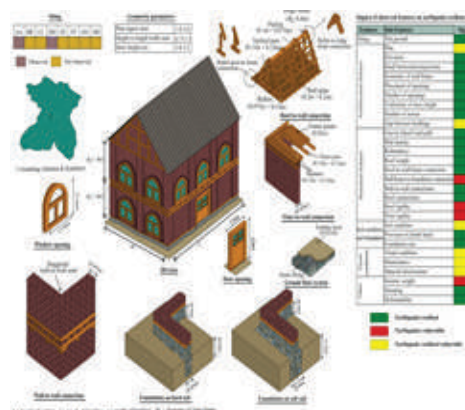


Suggested Safety Measures

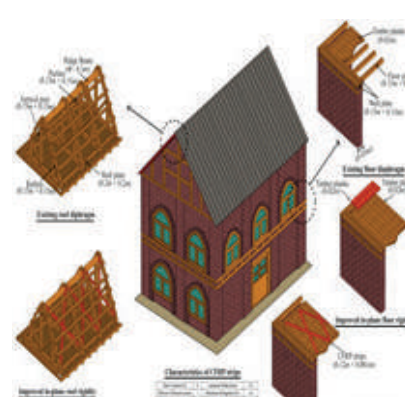
The term **Dhajji-Dewari** is derived from the Persian language meaning *'Patchwork Quilt Wall'* and it is a traditional building practice of the Western Himalayan region. In particular, these buildings can be seen in the Union Territory of Jammu and Kashmir and a few buildings also in the city of Shimla and nearby areas in the State of Himachal Pradesh, India



Taq Construction



Key Features

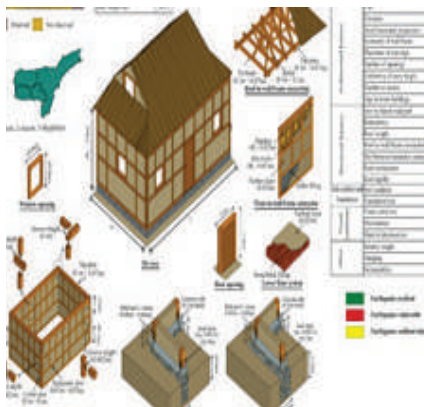


Suggested Safety Measures

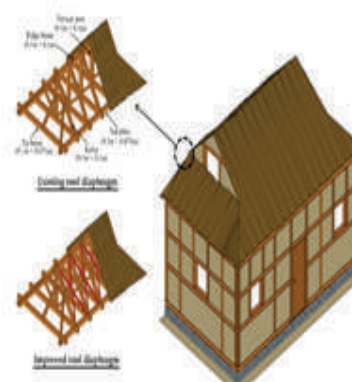
**Taq** is a traditional timber-laced masonry construction practice prevalent in Western Himalayas in Kashmir Valley around Srinagar, in the Union Territory of Jammu and Kashmir, India



Assam Construction



Key Features



Suggested Safety Measures

**Assam-type of building construction is one of the oldest forms of traditional construction widely seen in the North-eastern States of Assam, Sikkim and Meghalaya**

#### 4.17 Pilot project to improve Earthquake Resiliency of Masonry Lifeline Structures and upcoming constructions

Earthquakes in the recent past in India caused widespread damage, resulting in the loss of lives and property especially unreinforced masonry structure. Unreinforced masonry (URM) buildings make up a significant portion of the buildings across the globe. It is a well-known fact that the majority of these structures have not been designed for seismic loads and the walls of these building structures were designed to resist gravity loads principally. Therefore, moderate to strong earthquakes can produce devastating impacts in cities or villages resulting in a massive death toll and a huge loss to property and national infrastructure. Hence retrofitting of these structures and enhancing their strength is essential. There are a number of techniques that have been developed and executed for the improvement of the seismic behavior of these structures.

NDMA has undertaken a pilot project to improve the earthquake resilience of lifelines structure with States of Tripura, Uttarakhand and NDMC Delhi which include the retrofitting of selected masonry lifeline buildings, construction of technology demonstration unit and capacity building of engineer, bar benders, and carpenters. The main objectives of the Scheme are: -

- Structural safety audit of selected lifeline masonry buildings
- Retrofitting of selected lifeline masonry buildings
- Construction of Technology Demonstration Units to showcase the earthquake-resistant technology (one each in the project States/UT).
- Capacity Building-Training of engineers, masons, bar-benders, and artisans





Retrofitting of Melaghar Girls H.S(+2) School, Tripura



Retrofitting of Ati Prathmic Swasthya Kendra Sabhawala, Dehradun, Uttarakhand

## C. Landslide & Avalanches

### 4.18 Landslide Risk Mitigation Scheme

- NDMA has launched Landslide Risk Mitigation Scheme (LRMS) to provide central assistance to vulnerable States/UTs for disaster preparedness and build their capacity to take up other Landslide Mitigation Projects by the States/UTs in future. NDMA conceptualized and launched LRMS under Improving Disaster Risk

Governance of SDMA's / DDMA's in July, 2019. The total cost of the project is INR 43,91,74,000. Scheme covering 21 States and 2 UTs taken on pilot scale covering 10 States in Phase 1 and 11 States & 2 UTs in Phase 2. Four major outcomes of the scheme are Landslide Mitigation, Real Time Monitoring, Awareness programmes and Capacity Building & Training. A Template for preparation of DPR was prepared by NDMA and circulated to all vulnerable



States / UTs. Three States of Mizoram, Nagaland and Sikkim completed landslide treatment/ mitigation and Uttarakhand is in progress to do the

treatment at the vulnerable site. State Level Workshops were also organized in Mizoram, Nagaland and Sikkim.



#### 4.19 Creation, Periodic Review/ Updation of Building codes on Landslide Resilient Features

- NDMA initiated a project to support the Bureau of Indian Standards (BIS) in preparing new Guidelines / Codes / Standards in landslide subjects. For landslide, two committees of BIS, i.e., CED 48 (Rock Mechanics Sectional) & CED 56 (Hill Area Development Engineering Sectional), were formed to prepare Guidelines/codes/standards. Guidelines will be finalized by NDMA & BIS, and then relevant Codes / Standards will be developed by BIS. The developed document will be circulated among all the concerned Ministries, Departments, States/UTs, and other stakeholders for use. MoU was signed for the preparation of "Guidelines for Determination of Rock Mass Shear Strength in Bedrock of Landslide Affected Slopes" in July 2020 under BIS Committee (CED 48) with IIT Roorkee and BIS. Another MoU was signed in July 2021 for the preparation of two more guidelines under the BIS Committee (CED 56) on "Guidelines for micro-piles for Mitigation of Landslides or Slope Stabilization" and "Safety and Mitigation Measures for the Buildings and Infrastructures in Landslide Affected Areas". "Guidelines for Determination of Rock Mass Shear Strength" and "Guidelines for micro-piles for Mitigation of Landslides or Slope Stabilization" have been approved by BIS.

#### D. Geographic Information System (GIS)

#### 4.20 Project-1. Development of cloud based application information System Project

- Development of Cloud based GIS portals and operation dashboard on pan India

#### 1. Hazard Information System Portal

- Hazard management, assessment and prediction are developed for the prevention and mitigation of geological hazards. Data sets related to geological hazard prevention has been collected from various states, and also Integrated the layers of Historical data, infrastructure and utilities for hazard specific geo-databases like Earthquake, Flood, Chemical, Landslide, Cyclone and Wind hazard, Forest fire, Tsunami, Nuclear, Lightening and Multi hazard. The hazards vulnerability maps of Pan India.

#### 1.1 Hazards wise Information

- Earthquake Zone / Fault Line/ Earthquake Location
- Landslide
- Flood
- Cyclone and Wind Hazard
- Forest Fire
- Tsunami
- Nuclear
- Chemical Hazards / MAH Units
- NCRMP Shelter Location
- Kendriya Bhandar Location
- Petroleum exploration Safety organization (PESO) Location
- Apda Mitra Volunteer Geolocation

#### 1.2 Instruments and Infrastructure

- Hospitals Location (Up to PHC and Private Hospitals)



- Diagnostic centers
- FCI locations
- Agricultural Mandi
- Post Office
- Power Stations
- Chemical Refineries

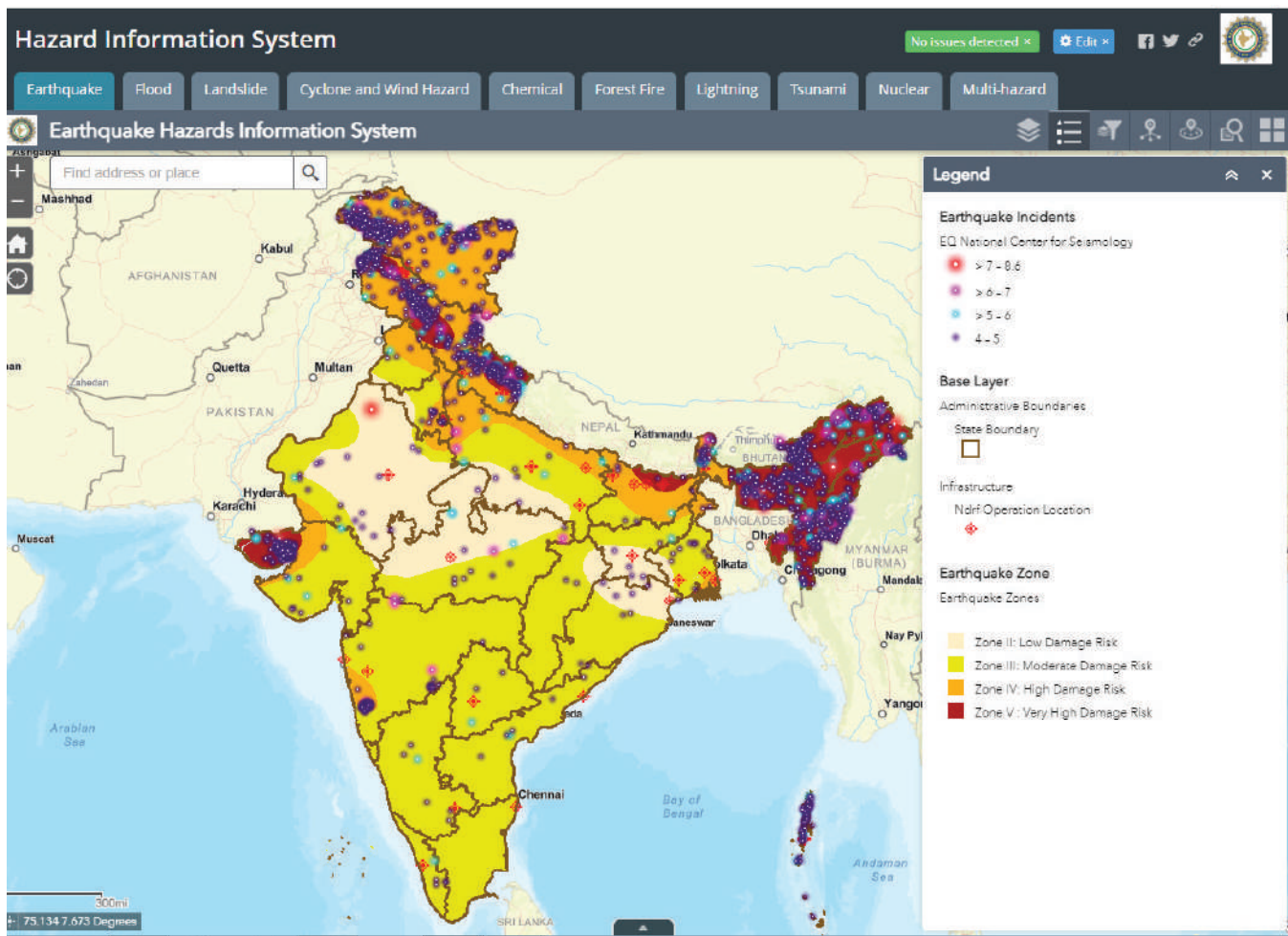
- NDRF Location
- Cyclone Shelter
- States/ District HQ
- Fire Station
- Town/Village level Population data
- Administrative boundaries (States/ Districts/ Sub District/Village)

### 1.3 Inventory

- Historical Landslide Point
- GLOC Locations
- Flood Events
- Earthquake epicenters
- MAH Units
- Forest Fire points

### 1.4 Other Sources (e.g. data.gov.in)

- States/ District HQ
- Fire Station
- Town/Village level Population data
- Heritage Buildings
- Other Utilities





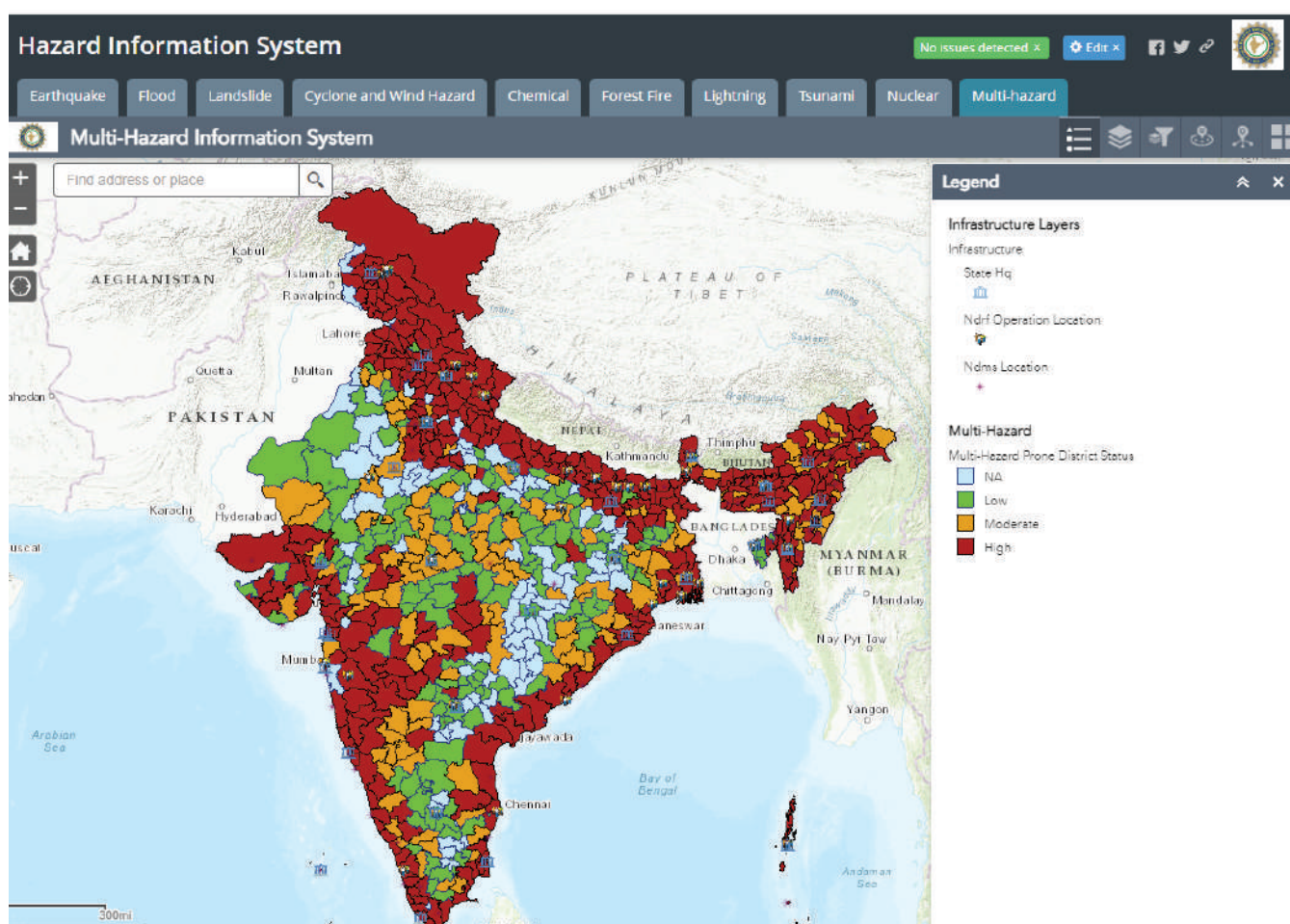


Figure3: These figures represent the Cyclone and wind hazard and Earthquake tabs (map of pan India) of the Hazard Information System

#### 4.21 Project-2. Capacity Building of Stakeholders on GIS in Disaster risk Reduction Project:

2.1 Organize training on “application of GIS in Disaster risk Reduction” with collaboration of NESAC NDMA has been Sponsoring to organize the Training programs to create awareness among all the SDMA’s and stakeholders/ disaster managers on the Application of Geographic Information System in Disaster risk reduction. Which is for two days and five days training conducted by the North

Eastern Space Applications Centre (NESAC), Umiam, Meghalaya. Training is being conducted which involves a number of participants of various states so that they can be aware about the GIS technology and they can be able to use this technology in making decisions at the time of occurrence of geological disaster or pandemic. One Training programme (Five Days) has been conducted during 2023-2024 and about 25 professionals have been trained from all SDMA’s, Ministries and other stakeholders. The project will be completed in March 2026.



*Picture : Participants, Director NESAC, Cheif Guest (NDMA), Course Director & Officers and resource persons during the inaugural session of the training program.*



*Picture : Some of the photographs showing the lectures and discussion session during the five days training program*



#### 4.22 National GLOF Risk Mitigation Programme (NGRMP)

- The effects of global warming in the Indian Himalayan Region are evident in the receding and melting of mountain glaciers, as well as the growth of existing glacial lakes and the creation of new ones. As glaciers shrink, the melted water fills spaces once occupied by ice, forming glacial lakes or ice 'dams'. These dams, inherently unstable, are susceptible to sudden failure or breach due to various factors like earthquakes, avalanches, or overtopping. When such breaches occur, millions of cubic meters of water and debris can be released rapidly, causing catastrophic floods that extend downstream for hundreds of kilometres—a phenomenon known as Glacial Lake Outburst Floods (GLOFs). States and territories like Jammu and Kashmir, Ladakh, Arunachal Pradesh, Sikkim, Himachal Pradesh, and Uttarakhand are particularly at risk from GLOFs.
- The objectives of the program are straightforward: to prevent loss of life and minimize economic damage from GLOFs, strengthen early warning and monitoring systems, enhance scientific and technical capabilities at local levels, and employ both indigenous knowledge and advanced mitigation measures.
- The program operates nationally, with states tasked with identifying,

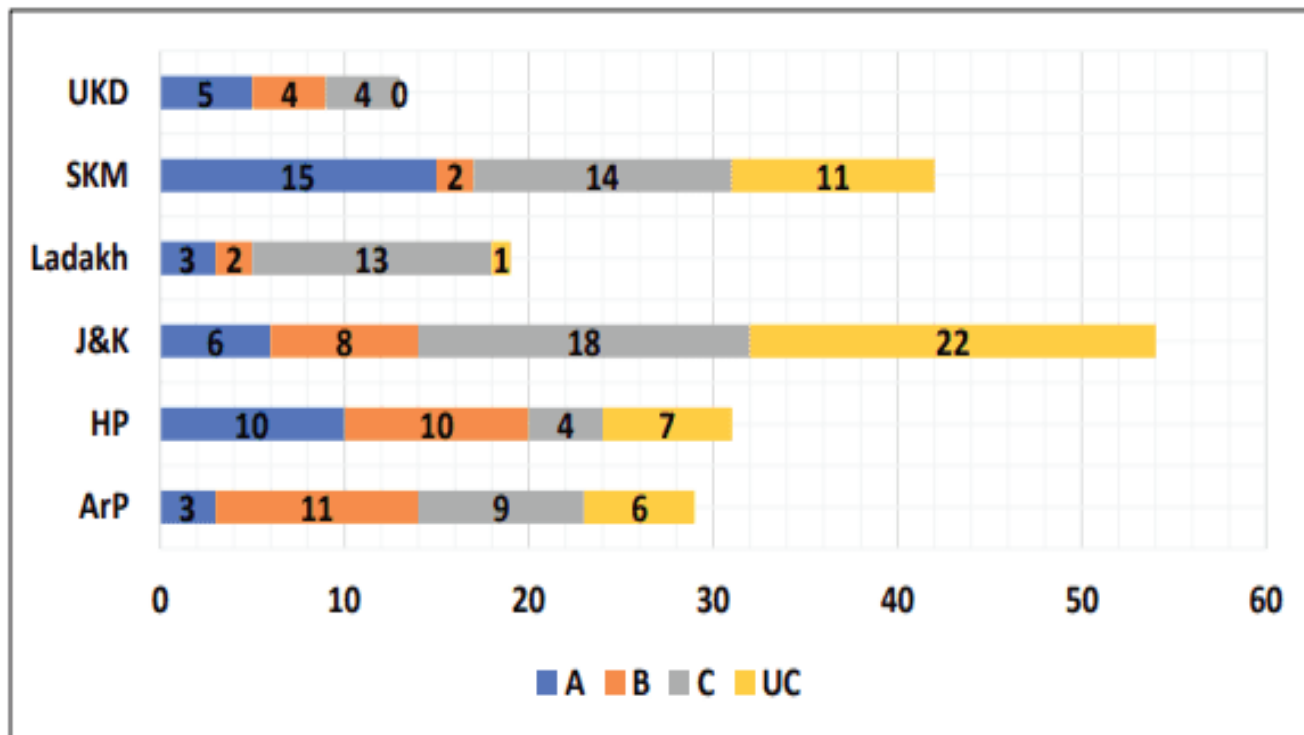
planning, and executing mitigation projects. It aligns with the risk reduction aims of the Sendai Framework for Disaster Risk Reduction (2015-2030). Implementation occurs in phases, recognizing that GLOFs are site-specific, and vulnerability varies based on geographical, geological, and human factors downstream. Phase-I focuses on four Himalayan states—Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh—and two union territories—Jammu & Kashmir and Ladakh.

- On October 18, Union Home Secretary chaired the SC-NEC and recommended the NGRMP to HLC for final approval. Subsequently, NDMA hosted the six meetings of Committee of Disaster Risk Reduction (CoDRR) from October 30 2023 to April 8 2024. The participating stakeholders in this meeting include DRDO, CWC, CDAC, GSI, IMD, IIRS, NESAC, NIH, NCPOR, DGRE, NGRI, NRSC, and the SDMA of six Himalayan States/UTs.
- Discussions of CoDRR were focused on NDMA's compilation of 141 high-risk glacial lakes in India, based on studies compiled by NRSC, CWC, CDAC, GSI and SDC2 in the past 15 years.

- Categorisation:** As instructed by Union Home Secretary, these 141 lakes were prioritised based on level of risk, into three categories, the fourth set remaining UC (unclassified).

State	No. of GL	A	B	C	UC
Unique GL - IHR	490	66	77	128	219
TB	302	24	40	66	172
<b>Unique GL - India</b>	<b>188</b>	<b>42</b>	<b>37</b>	<b>62</b>	<b>47</b>

2. **States/UTs as Nodal:** It was decided that States/UT Governments would drive GLOF mitigation in their jurisdiction, and would be advised by one Lead Technical Agency, a central scientific institution.



3. **Lead Technical Agency (LTA):** Based on existing experience and work with State/UT Governments, CDAC offered to work with Government of Sikkim and NESAC with Government of Arunachal Pradesh as Lead Technical Agency. The members agreed to provide all possible technical and ground-level support to these agencies. LTAs for the other States/UT are yet to be finalised.
4. **Coordination:** NDMA will continue to coordinate de-risking of high-risk glacial lakes through this mechanism. Shortly, meetings will be held with State/UT Governments to scale-up the glacial lake de-risking initiative.

Following the 6th CoDRR meeting on April 8th, 2024, State Agencies have announced plans for expeditions focused on glacier lakes to conduct feasibility studies and install AWS/EWS during the summer of 2024. Preparations for expeditions to 41 glacial lakes (as listed in the table) were discussed with representatives from five States/UTs. However, Ladakh was unable to attend the meeting.

State / UT	Expeditions to No. of Glacial Lakes
Sikkim	19
Arunachal Pradesh	8
Himachal Pradesh	4
Uttarakhand	5
J&K	5
Ladakh	No information

## 6<sup>th</sup> CoDRR - GLOF Risk Mitigation Measures

April 8, 2024



Dr Piyush Gourav

SC DMRRR

O/o Adv Mit



SDMA Arunachal Prade

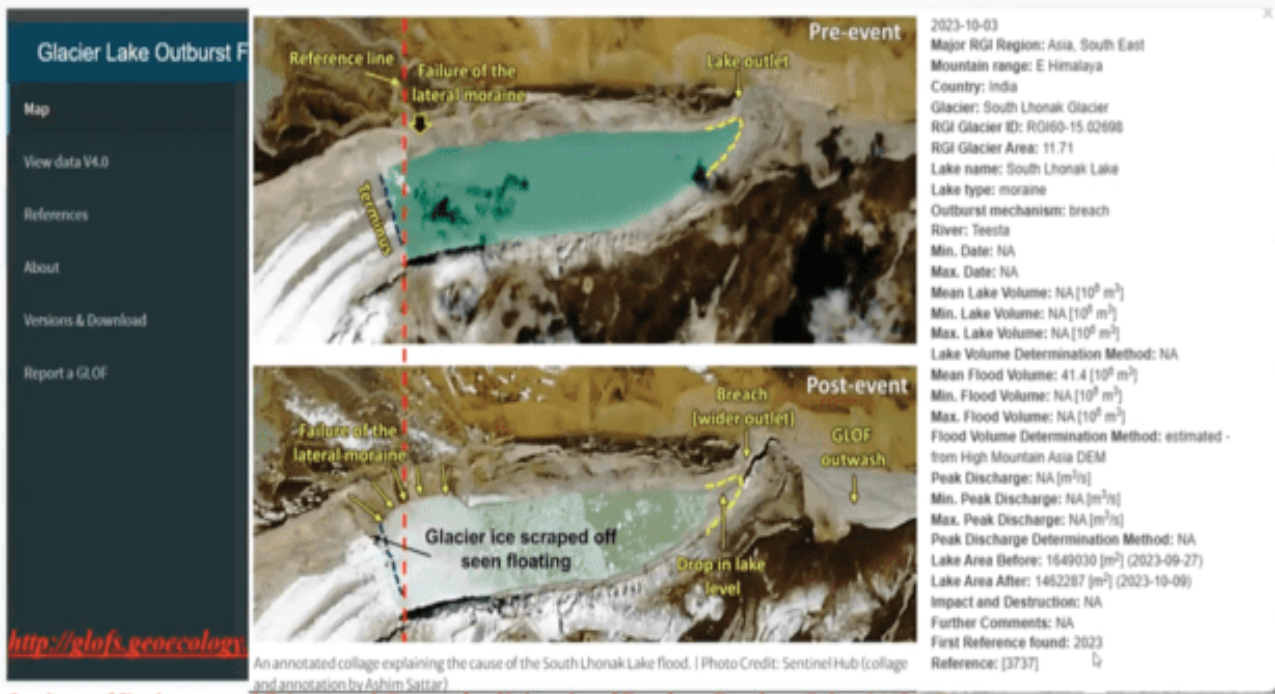
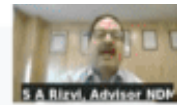
Dr. Ranjit Kumar Sinha

CDAC

Dr K H V DurgaRao, NF

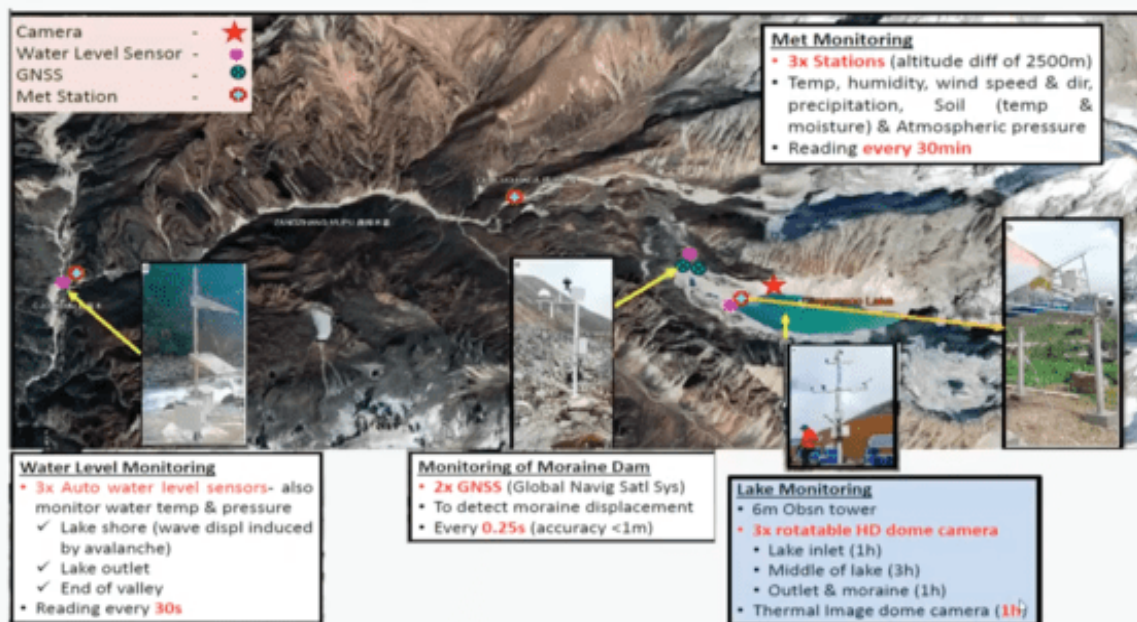


## Univ of Potsdam: GLOF database from 1984 to 2023



*Institute of Environmental Science and Geography, University of Potsdam, Potsdam-Golm, 14476, Germany*

## Cirenmaco Lake, China (Transboundary); 4600m; 115m deep



# CHAPTER: V

## CAPACITY DEVELOPMENT

### Introduction

5.1 A strategic approach to capacity development can be addressed effectively only with the active and enthusiastic participation of all the stakeholders. This process comprises awareness generation, education, training, Research and Development (R&D), etc. It further addresses putting in place appropriate institutional framework, management systems and allocation of resources for efficient prevention and handling of disasters.

5.2 The approach to capacity development includes:

- According priority to training for developing community based Disaster Risk Reduction (DRR) systems for their specific needs in view of the regional diversities and multi-hazard vulnerabilities.
- Conceptualization of community based DRR systems at the national level through a consultative process involving the States and other stakeholders including local level authorities in charge of implementation.
- Identification of knowledge-based institutions with proven performance.
- Promotion of international and regional cooperation.
- Adoption of traditional and global best practices and technologies.

- Laying emphasis on table-top exercises, simulations, mock drills and development of skills to test the plans.
- Capacity analysis of different disaster response groups at State/District/Local levels.

### Up-scaling of Aapda Mitra Scheme

5.3 Based on the success of Pilot Scheme as well as appreciation and request from all the States/UTs, NDMA is implementing Up-scaling of Aapda Mitra Scheme at a total cost of ₹ 369.40 Crore covering 350 highly vulnerable districts across 36 States/UTs prone to floods, landslides, cyclones and earthquakes in order to train 100000 volunteers. Under the scheme, an Emergency Responder Kit (ERK) and an insurance covering hospitalization/permanent disablement/death will be provided to all trained volunteers. Further, each selected district will be provided an Emergency Essential Resource Reserve (EERR). The scheme was extended for one year upto March, 2024.

5.4 The Scheme is being funded from Preparedness and Capacity Building Funding Window of National Disaster Response Fund (NDRF).

The Status of the Scheme (as on 31.3.2024) is as under:

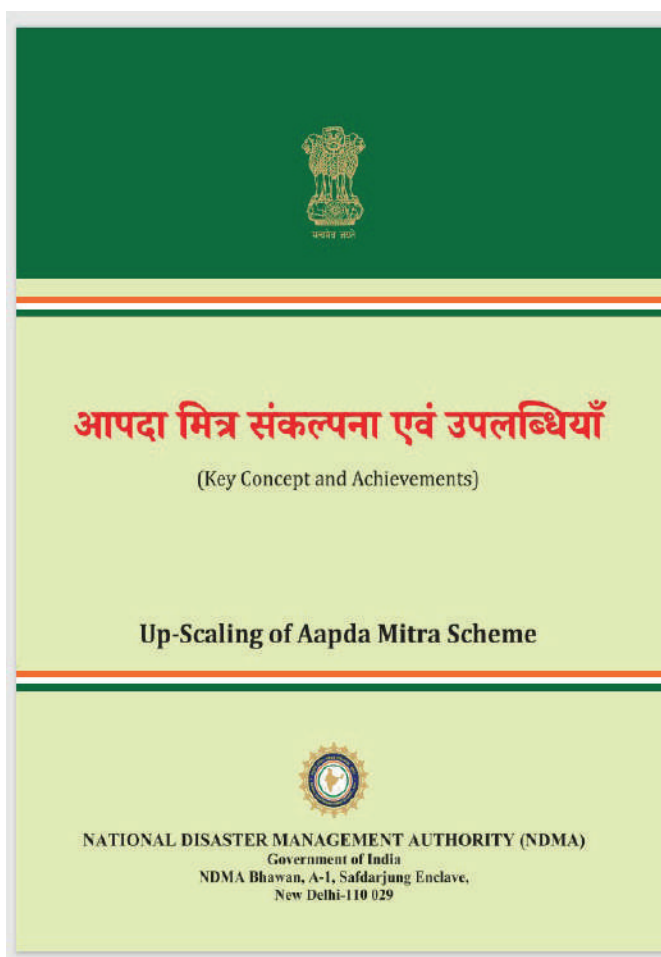
- a. MoU has been signed with all States/UTs.



- b. 96600 volunteers have been trained under the Scheme by States/UTs.
- c. Out of total trained volunteers, **83132** volunteers have been insured.
- d. Data of 94870 have been fed in the Aapda Mitra MIS portal by States/UTs.
- e. ERKs have been purchased by **30 States/UTs** and EERRs by **19 States/UTs**.
- f. Out of ₹369.41 crore, an amount of ₹352.92 crore has been either released to States/UTs or spent at NDMA level.
- g. Over **2,953 brave Aapda Mitra volunteers involved in 88 incidents. They have rescued 78,019 people and**

**saved 129 lives** so far, showing their strong dedication, commitment and outcome of the scheme on the desired lines.

- h. To showcase the effective rollout of the Up-scaling of Aapda Mitra scheme and honor the dedication, bravery, and selflessness of Aapda Mitra volunteers in building a disaster-resilient society, NDMA released a booklet titled “आपदा मित्र संकल्पना एवं उपलब्धियाँ: **Key Concept and Achievements**” on its 19th Formation Day. This booklet aims to highlight the scheme’s concept and the remarkable achievements of Aapda Mitra volunteers.



## आपदा मित्र संकल्पना एवं उपलब्धियाँ (Key Concept and Achievements)

### Up-Scaling of Aapda Mitra Scheme



### NATIONAL DISASTER MANAGEMENT AUTHORITY (NDMA)

Government of India

NDMA Bhawan, A-1, Safdarjung Enclave,

New Delhi- 110029

- i. As a follow up of the Review Workshops held at Bengaluru on 22.7.2022 and at Guwahati from 8.12.2022 to 9.12.2022, NDMA in collaboration with Govt of Haryana conducted another workshop titled “Review & Documentation of Best Practices of Up-scaling of Aapda Mitra Scheme” on 11th August, 2023 at Surajkund, Faridabad, Haryana to review the progress of Scheme

implementation, assess the training model and methodology, identify the challenges and to document the utilization of trained volunteers in disaster response and preparedness activities. The workshop provided all project State/UTs a platform to share their feedback and suggestions and best practices being adopted by them.



**Attendees from various States and Union Territories gathered for a workshop on “Reviewing and Documenting Best Practices for the Expansion of the Aapda Mitra Scheme” held in Surajkund, Haryana on August 11, 2023.**

### **Project on Capacity Building of IAS/ Central Civil Services Officers in Disaster Management at CDM, LBSNAA**

- 5.5 NDMA in collaboration with Centre for Disaster Management, Lal Bahadur Shastri National Academy of Administration (LBSNAA), Mussoorie has been implementing the Project at a total outlay of ₹ 3.75 Cr. for five years from 2021-22 (Feb, 22) to 2025-26 to train 950 officers per year at the CDM, LBSNAA, Mussoorie.
- 5.6 The Project aims to sensitize to the existing systems of disaster management at the various executive and policy making levels of the government; to undertake case studies; and to develop knowledge repository on disaster management.
- 5.7 In the financial year 2023-24, 1369 officers were trained under the Project. So far, 3308 officers (FY 2021-22 - 488, FY 2022-23-1451, and FY 2023-24 - 1369) have been trained under the Project.

#### **15th Meeting of the Joint Monitoring Committee (JMC)**

- 5.8 15th Meeting of the Joint Monitoring Committee (JMC) chaired by Ms. Sumita Singh, Advisor (CBT), NDMA was held on 15.3.2024 virtually to review the efforts taken by States and other stakeholders for implementation of the National Disaster Management Guidelines on School Safety Policy-2016.

#### **8th Inter-Ministerial Committee Meeting of SAARC Disaster Management Center (IU)**

- 5.9 8th Inter-Ministerial Committee Meeting was held under the chairmanship of Shri Kamal Kishore, Member & HoD, NDMA on 19.3.2024 in NDMA to discuss Activity

Plan 2024-25 and the modalities for efficient functioning of SAARC Disaster Management Center (IU).

### **International Meetings / Bilateral Meetings / Conferences / Workshops**

- 5.10 NDMA, GoI hosted structured workshop for Knowledge Sharing on Earthquake and Flood for SCO Member States on 23.02.2023 and 24.02.2023 respectively in virtual mode. Experts from SCO Member Countries presented their views and experiences in the field of Earthquake and Flood Management.
- 5.11 Government of India hosted Expert Group Meeting and Ministerial Meeting of SCO Member States for Prevention of Emergency Situations on disaster management issues of the SCO activities on 19.04.2023 and 20.04.2023 respectively at The Leela Palace, New Delhi in hybrid mode.
- 5.12 Bangladesh hosted 3rd and 4th meeting of the IORA Functional Bodies' Chairs and the Coordinating Countries (FBC-CC) virtually on 29.05.2023 and 25.09.2023 respectively. Representatives from NDMA, GoI have attended the meeting from Indian side.
- 5.13 South Africa hosted 5th BRICS Joint Task Force Meeting (JTF) and 4th Ministerial Meeting of BRICS on 07.09.23 and 08.09.2023 respectively. Shri Ashish V Gawai, Director, DM Division, MHA; Ms. Mrinalini Shrivastava, Director (G20), NDMA; Shri R.K. Mishra, US (CBT), NDMA from Indian side had participated in the 5th BRICS JTF virtually. Lt. Gen. Syed Ata Hasnain, Member, NDMA had represented India in the 4th Ministerial Meeting of BRICS virtually.



5.14 EMERCOM of Russia conducted BRICS Disaster Risk Management Centre's Training on HADR related issues on 15.2.2024 virtually. The training programme was attended by Shri Nawal Prakash, Joint Advisor, NDMA and Shri Avanish Kumar, Second-in-Command, DM Division, MHA.

### Foreign Travel / Visits undertaken:

5.15 Shri Kamal Kishore, Member & HoD, NDMA attended the High Level Meeting of the General Assembly from 18.05.2023 to 19.05.2023 in New York, USA to review the Sendai Framework to array of sessions, side events and thematic engagements which will explore how to enhance risk reduction efforts across sectors, regions and contexts. He also participated in SDG Summit held at United Nations Headquarters in New York, USA from 17.09.2023 to 19.09.2023 as representative of CDRI in a global platform. He also participated in a event on 'Strengthening the global institutional architecture for disaster-resilient infrastructure' on 12th to 15th March, 2024, as CDRI's Co-Chair at Bellagio Centre, Italy.

5.16 Shri Alok, Additional Secretary, NDMA attended the 58th Session of Subsidiary Bodies to UNFCCC at World Convention Center, Bonn, Germany from 05.06.2023 to 09.06.2023 for discussion on matters related to the Santiago Network under the Warsaw International mechanism for loss & damage associated with Climate Change impacts and others.

5.17 Shri Kunal Satyarthi, Joint Secretary, NDMA participated in ECBI Fellowship 2023 and the Oxford Seminar and Fellows Colloquium from 20.08.2023 to 26.08.2023 in Oxford, UK.

5.18 Col Kirti Pratap Singh, Advisor (Ops & Comn), NDMA attended the 2nd Flash Flood Guidance System with Global Coverages (FFGC) Global Workshop held in Skopje, North Macedonia from 19th to 23rd June 2023 to bring together the forecasters that use the national and regional FFGSs to share experiences, showcase accomplishment and provide further understanding of the new capabilities of FFGS.

5.19 Ms. Mrinalini Srivastava, Director G20, NDMA attended the Regional Forum on Strengthening the Enabling Environment for Disaster and pandemic Risk Financing: Options for Enhancing Financial Resilience for understanding Disaster & Pandemic Risk financing mechanism, methods and case studies which was held from 19.09.2023 to 20.09.2023 in Bangkok, Thailand.

5.20 Dr. Pavan Kumar Singh, Joint Advisor (IC), NDMA visited AHA Centre, Jakarta from 10.1.2024 to 12.1.2024 to familiarize with the setup in AHA Centre, Jakarta as well as to discuss the areas of bilateral cooperation.

5.21 Lt. Col. Sanjeev Kumar Shahi, Joint Advisor (Ops), NDMA visited Kathmandu and Chitwan, Nepal from 6.11.2023 to 10.11.2023 to participate in 2023 Nepal Disaster Response Exercise and Exchange. He also participated in the 2nd Regional Workshop of the Component 1 of CARE for South Asia Project from 28.11.2023 to 30.11.2023 at Bangkok, Thailand.

5.22 Shri Abhishek Sharma, SRO, NDMA participated in the training programme on "Ratchaphruek", a medical response workshop and Table Top Exercise from 16.05.2023 to 18.05.2023 in Bangkok, Thailand.

5.23 Shri Chandan Singh, Under Secretary, NDMA participated in a training programme on CBRN-E Defence and Security Capability Development held from 29.05.2023 to 09.06.2023 in Slovakia.

#### **5.24 National Lightning Mitigation Programme (NLMP)**

In order to prevent the loss of life and property, NDMA has initiated a process for developing Mitigation Programme on Lightning Safety in consultation with various stakeholders i.e. concerned States/UTs, Central Ministries/ Departments & Institutions. Upon approval of the Programme, the programme document was shared with MHA for consideration.

A meeting was held under the Chairmanship of AS(DM) on 05.06.2023 to discuss draft National Lightning Mitigation Programme. Hon'ble Home Minister chaired 8th meeting of NDMA on 16.07.2023 and directed that the Programme should focus towards spreading of awareness about safety during lightning. Accordingly, the programme document was revised to Mitigation Project on Lightning Safety (MPLS) with emphasis upon awareness generation and shared with MHA for approval. The Sub-Committee of National Executive Committee (SC-NEC) meeting held on 18.01.2024 and reviewed the components and sub-components of the programme. As suggested the Programme was revised and submitted to MHA for approval. While considering the programme, Deptt. of Expenditure made several observations and sought reply from NDMA. In this regard, reply from NDMA was shared with MHA for onward transmission to Deptt. of Expenditure

#### **5.25 Preparedness and Mitigation Measures for Thunderstorm & Lightning**

NDMA has prepared Advisory and Do's & Don'ts on Thunderstorm & Lightning and issued

to State/UTs vide NDMA letter on 18.03.2024 for necessary action.

NDMA in a meeting held on 16.04.2024 with major States/UTs and concerned Ministries/ Departments reviewed the Preparedness and Mitigation Measures on Thunderstorm and Lightning under the chairmanship of Shri Krishna S Vatsa, Member, NDMA in NDMA Bhawan, New Delhi. The States/ UTs were advised to undertake preparedness and mitigation measures in more effective manner to reduce the number of deaths.

#### **5.26 National Recovery Resource Center (NRCC) :**

The XV Finance Commission in its Report recommended that Recovery & Reconstruction Facility to be set up with 30 percent of the resource under State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF) under Recovery & Reconstruction window to rebuild assets and livelihoods of the people, who are affected by disasters on long-term basis.

NDMA developed the draft for a National Recovery Resource Centre (NRRC) and presented before the Senior Officers of NDMA. Upon acceptance of the draft, the proposal was approved by Member & HoD, NDMA on 08.03.2024. NDMA issued Office Order dated 22.03.2024 for setting up of National Recovery Resource Centre (NRRC) in NDMA.

#### **5.27 Scoping Study on role of Drones/ UAVs in Disaster Management**

In pursuance to Prime Minister's Agenda 5 i.e. "Leveraging technology to enhance the efficiency of the Disaster Risk Management efforts", NDMA initiated a proposal to carry out 'Scoping Study on Role of UAVs/Drones in Disaster Management' with an aim to increase the role of Science and Technology in various phases of Disaster Management.

Centre for Aerospace Research (CASR), Anna University, Chennai was awarded the project for carrying out the Scoping Study. During the process of finalizing the Study, several rounds of deliberations and consultations were held with all relevant stakeholders including the expert Committee. The draft Study report was analysed keeping in view of the Drone Rules, 2021 issued on 28th January, 2022. In a meeting held on 09.11.2023, CASR was directed to prepare two separate documents viz. Draft Guidelines for use of Drones/UAVs : (i) Opportunities & Constraints, (ii) SOP for States (in a zonal and disaster-wise specifications). These documents submitted by CASR were approved during the expert meeting held on 11.03.24, subject to incorporate the comments/suggestions of the expert members.

### **5.28 Mitigation Measures on erosion & Policy on Resettlement for people affected by Erosion**

The XV Finance Commission in its Report recommended for developing suitable norms for Mitigation measures to prevent erosion (coastal and river) under National Disaster Mitigation Fund (NDMF) and Policy on Resettlement for People affected by Erosion (Coastal and River) under National Disaster Response Fund (NDRF). NDMA in consultation with various stakeholders comprising, Central Ministries/ Departments, States/UTs, Institutions and Organisations formulated the draft guidelines and submitted to MHA for approval. As per suggestions of MHA, these documents viz. Norms for Mitigation measures and Resettlement Policy were further revised and shared with MHA on 25.01.2024.

Deptt. of Expenditure forwarded its observations on the draft Guidelines for Mitigation measures on Erosion and Policy on resettlement for People affected by Erosion vide their letter dated 15.02.2024. Suggestions

towards observations of Deptt. of Expenditure was prepared and was forwarded to DM Division MHA vide NDMA letter dated 07.03.2024 for necessary action.

### **5.29 Preparedness and Mitigation Measures for Cold Wave & Frost Season 2023-24**

NDMA shared Advisory and Do's & Don'ts for Cold Wave for the year 2023-24 vide NDMA OM dated 19.12.2023 with all States/UTs prone to Cold Wave and concerned Ministry/ Departments for wider dissemination.

In order to review the preparedness and mitigation measures, a meeting was held on 21.12.2023 with Cold Wave prone States/UTs and concerned Ministries/Departments under the chairmanship of Member & HoD, in NDMA Bhawan, New Delhi. During the deliberation in meeting, States/UTs were requested to prepare their Action Plan and share a copy with NDMA. States of Himachal Pradesh, Uttarakhand and Jammu & Kashmir were particularly advised to remain prepare for ensuing season and ensure necessary preparedness and mitigation measures.

### **5.30 PDNA Exercise in States :**

#### **(a) PDNA exercises in 8 States following severe flooding during monsoon-2022**

Based on the severity of floods in many States during monsoon 2022, NDMA felt that a second stage assessment vis-a-vis PDNA to assess damage, loss and recovery needs on a long-term basis to rebuild assets and livelihood. Accordingly, PDNA exercises were held in affected States i.e. Assam, Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Maharashtra, Meghalaya and Odisha.

NDMA scrutinised the PDNA reports submitted by the States under the chairmanship of Shri Krishna S. Vatsa, Member, NDMA

and suggested for necessary corrections/modifications in their Report. Following the revised PDNA Reports received from the States, NDMA reviewed these Reports and felt that Reports from the States i.e. Andhra Pradesh, Assam, Gujarat, Maharashtra and Meghalaya are in order. So, NDMA recommended for the assistance with a total of Rs. 4056.46 Crore to MHA for approval in respect of these States.

**(b) Landslide & subsidence affected Joshimath, Uttarakhand in 2023.**

In December 2022, the town of Joshimath in District Chamoli suffered the problem of land subsidence leading to the gradual sinking of land in the area. The land subsidence affected the built environment in the town and surrounding areas. DM Division, MHA vide letter dated 21.03.2023 forwarded the request of Department of Disaster & Rehabilitation, Govt. of Uttarakhand and advised NDMA to provide technical support and requisite expertise for conducting the site-specific PDNA exercise.

NDMA prepared the Terms of Reference (ToR) and organised orientation meetings with the State Govt. for conducting PDNA exercise. Soon after this, NDMA set up a joint PDNA exercise from Central Govt Ministries/ Departments and international organisations to support the nominated officers/ experts from the State Government & Technical Institutions in facilitating the exercise. The PDNA exercise was conducted during 22-25 April, 2023 to assess damage and loss occurred in Joshimath. State Govt. prepared the draft PDNA Report and submitted to NDMA on 28.06.2023. NDMA reviewed the Report and made sector-wise assessment and recommended for assistance to MHA. The meeting of the SC-NEC was held on 12.09.2023 to consider the PDNA proposal for special assistance to the Govt. of Uttarakhand. The High Level Committee (HLC) under the

chairmanship of Union Home Minister held on 27.11.2023 approved Rs 1079.96 crore of the Government of Uttarakhand under R&R window.

**(c) Floods, cloudburst & landslides during the recent monsoon 2023 in Himachal Pradesh**

The State Govt. of Himachal Pradesh vide letter No. Rev (DMC) (F)-2-2/2023-PDNA-Monsoon dated 25.07.2023 requested NDMA to provide technical support for conducting the PDNA exercise to assess losses and damages in the State for long-term recovery and reconstruction plan.

In order to assess the losses and damages occurred in the State, NDMA constituted a Joint Expert Group comprising experts from various fields and made the 1st Phase of PDNA exercise in six districts i.e. Chamba, Kullu, Kinnaur, Mandi, Shimla and Solan during 08-12 August, 2023. Subsequently, 2nd Phase PDNA exercise was held during 16-19th September, 2023 for remaining six districts in i.e. Kangra, Bilaspur, Una, Sirmaur, Hamirpur and Lahaul &Spiti, as per the request of Himachal Pradesh State Disaster Management Authority (HPSDMA).

Upon completion of the PDNA exercise, the State Government submitted the report to MHA on 25.11.2023 with a copy to NDMA for acceptance of the Report. NDMA scrutinised the Report and recommended for Central assistance of Rs. 2787.60 Crore to MHA on 20.02.2024 for approval. Following this, the SEC-NEC meeting held on 05.03.2024 under chairmanship of Union Home Secretary and decided that the assistance will be finalised subject to finalization of the R&R guidelines.

**(d) PDNA exercise in Sikkim:**

On October 3-4, 2023, the South Lhonak Lake, a glacial lake located in the Mangan district



of Sikkim, India, overflowed from the outlet, causing flash floods in the Teesta River basin, which affected four districts of Sikkim: Mangan, Gangtok, Pakyong, and Namchi. The disaster was likely triggered by a combination of factors, including heavy monsoon rains, glacier retreat, and an erosion of a part of lateral moraine.

The State Govt. of Sikkim vide their letter dated 21.10.2023 requested NDMA to provide technical support for conducting the PDNA exercise to assess losses and damages in the State for long-term recovery and reconstruction plan. In this connection, NDMA prepared the Terms of Reference (ToR) and held Orientation-cum-Training for the Officers of the State Govt. NDMA constituted a Joint Expert Group comprising experts from various fields vide letter dated 01.12.2023 and visited the State during 7-10 December, 2023 to provide technical assistance for conducting the PDNA exercise.

Following the completion of the PDNA exercise, the State Government prepared the draft PDNA report and submitted to NDMA for review. The Expert Group reviewed the PDNA report and forwarded the report to State Government with suggestions on 01.03.2024.

### **5.31 Common Alerting Protocol (CAP) based on integrated Alert System (Sachet) Phase-I.**

#### **Introduction**

- Government of India through MHA and NDMA is implementing a Project "Common Alerting Protocol (CAP) based on integrated Alert System (Sachet)" Phase-I.
- Named as Sachet, an acronym taken from first letters of Hindi words 'Samekit Chetavni Tantra', the Common Alerting Protocol based Integrated

Alerting System is designed to bring together different Alerting Agencies e.g. IMD, CWC, INCOIS, DGRE, FSI, etc. on a single web-based platform and issue geo-specific alerts to the people and response agencies. The alerts can be disseminated in real-time through multiple channels, including SMS, internet applications, mobile app, satellite channels viz GAGAN and NavIC and social media etc. in vernacular languages including English and Hindi.

- SACHET, developed under the guiding principle of 'Atma Nirbhar Bharat'-propounded by the Hon'ble Prime Minister Shri Narendra Modi, is seen as a major step towards ensuring a disaster resilient India by enabling citizens to be prepared for an impending disaster in time and ensure the State Disaster Management Authorities (SDMAs) can take swift action and save precious lives.
- The project is being progressed by NDMA with the support of CDOT (Centre for development of Telematics) an R&D organization under Department of Telecom (DoT).

#### **Integration and Expansion:**

- The platform has been extended to State/Union Territory level disaster management authorities for dissemination of early warning messages. Major forecasting agencies, including IMD, CWC, FSI, INCOIS, and DGRE, are integrated with the platform as Alert Generating Agency. The platform also integrates with all Telecom Service Providers active in the country for geo-targeted mobile SMS alerts.

### Status of Implementation so far

The implementation of the Common Alerting Protocol (CAP) has been successfully established across all 36 states and union territories in India.

- Proof of concept (PoC) trials have been conducted utilizing various mediums, including television, radio, and Indian Railways, as well as cell broadcast technology for the dissemination of alerts.
- The launch of the SACHET mobile app and the National Disaster Alert Portal further supports the CAP implementation by providing real-time alerts and safety information to the public, thereby increasing preparedness and resilience during emergencies.

### Highlights of the Activities undertaken during the period 2023-2024

- Cell Broadcast is a cellular network technology that enables the rapid

delivery of messages to millions of mobile phones simultaneously. Unlike other forms of communication, Cell Broadcast remains unaffected by network congestion, making it highly effective for use during disaster situations when time is of the essence. This technology allows for immediate pop-up notifications and warning sounds on mobile devices, drawing users' attention to the alert without delay. As part of Phase-1 of the CAP project, testing of CAP through Cell Broadcast has been successfully completed as part of a proof of concept.

- Training on the usage of the Common Alerting Protocol (CAP) for various stakeholders was conducted during the year to ensure that all involved agencies are proficient in leveraging the technology for effective emergency communication and alert dissemination

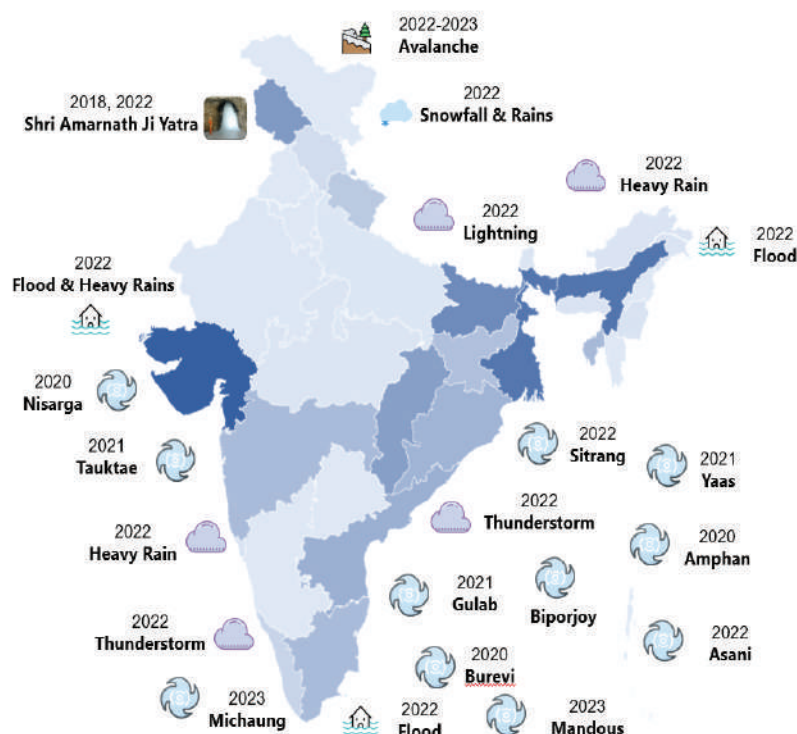
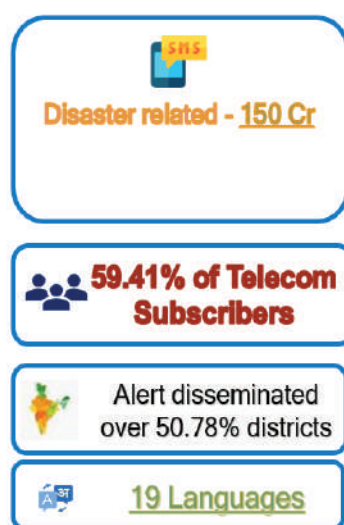


Cell Broadcast Testing



### Utilization and Efficacy of the System

- The system has been effectively utilized to disseminate the Alerts pertaining to different disaster events. One of the major use case of the system was during Cyclones “Michaung” and “Biporjoy” in the year 2022-23.
- A pictorial depiction of the usage of the platform in different disaster scenarios is given below:-



Utilization of CAP Platform in various disaster events



## Impact

- The adoption of the Common Alerting Protocol (CAP) is poised to bring about a transformative impact on emergency management and public safety. By standardizing communication across various alerting systems, CAP enhances coordination and interoperability, leading to faster and more effective dissemination of critical information. This streamlined approach improves public awareness, facilitates geospatial precision for targeted alerts, and fosters international collaboration. CAP has been instrumental in disseminating warnings. It has also been deployed in recent disasters such as Cyclone Biporjoy where 32.67 Cr messages were sent to the public, during Cyclone Mandous dissemination of alert was made through cell broadcast, TV, Radio etc. and Cyclone Michaung, where its effectiveness in providing timely and accurate warnings has been evident.

### 5.32 EXTENSION OF ERRSS (DIAL 112) FOR DISASTER EMERGENCIES “

#### Background

- Emergency Response Support System (ERSS) (DIAL 112) is a Pan-India single number based emergency response system for citizens in emergencies. Citizens can request help through Voice Call, SOS, SMS, Email, Web Request and Panic Button on a mobile app to request for immediate assistance for Police, Fire, Ambulance, Women Protection, Child Safety etc. The project initiated by MHA (Women Safety Division), has been implemented in all 36 States/UTs (in 28 States/UTs by CDAC and in

08 States/UTs by vendors other than CDAC) of the country.

### 5.33 Extension of Emergency Response Support System (ERSS) (Dial 112) for Disaster Emergencies

- In order to implement the vision of Hon'ble PM for 'Single Distress Number for all emergencies across the country', NDMA has conceived a Project "Extension of Emergency Response Support System (ERSS) (Dial112) for Disaster Emergencies". The Project has extended the existing ERSS system to cater for Disaster Emergencies also.

#### Salient features of the project are as under:

- a. Enhancement of the existing ERSS solution to cater for Disaster Emergencies.
- b. Integration of Public safety Access Points (PSAPs) /Police Control Rooms with SEOCs through leased lines.
- c. Installation of Hardware for operator positions at SEOCs of all States/UTs.
- d. Augmentation of hardware at the PSAPs of selected States/UTs in order to cater for increase in load.
- e. Setting up of mini data centre in eight states where ERSS has been implemented by a different vendor.
- f. Provision of leased line/internet connectivity at SEOCs.
- g. Provision of manpower to States/UTs to man operator positions for three years.
- h. Provision of manpower, furniture, office equipment travel charges and wages for a period of three years for the staff of Project Management Unit at NDMA.

- i. CDAC, based on their experience of implementing the existing ERSS system in 28 States/UTs, was nominated to implement the scheme.
- j. The Scheme is completely funded by NDMA.
- k. After completion of three years, the States/UTs are to sustain the Project by directly entering into an AMC with CDAC and hiring manpower from within their resources.

### **Status of Implementation**

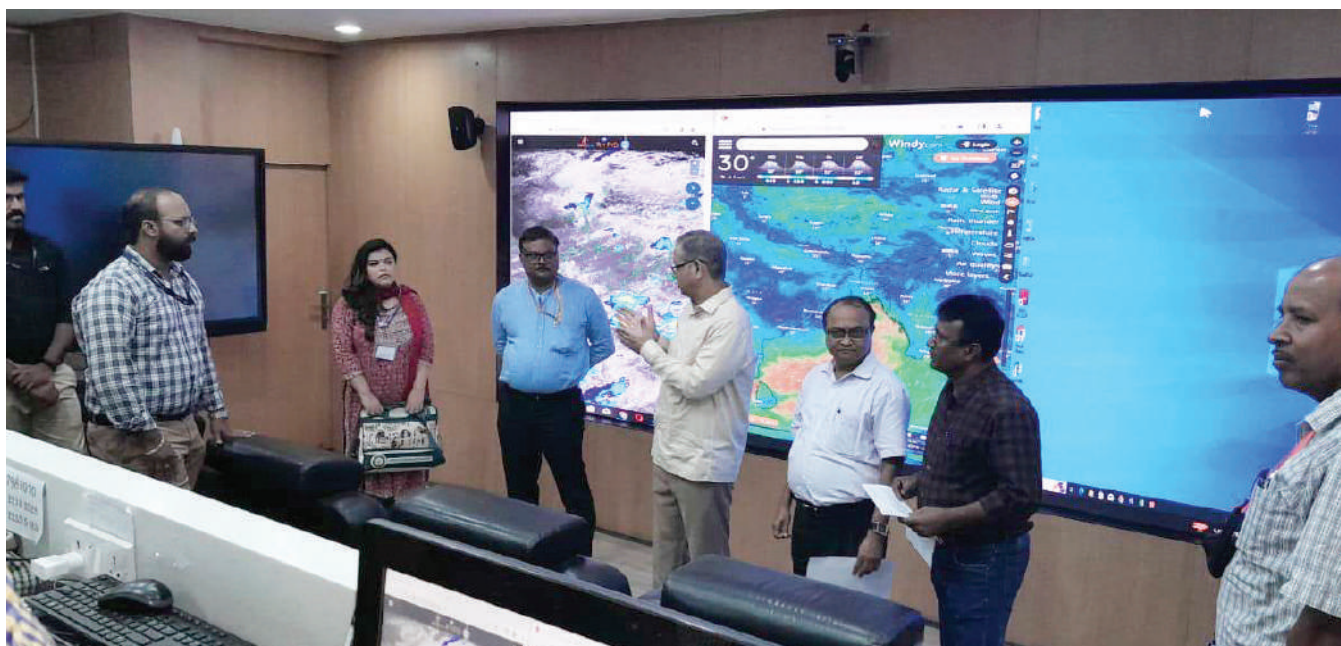
- a. The project is fully operational in 28 States/UTs and partially operational in 08 States/UTs. PSAPs & SEOC operators have been trained to handle disaster related 112 calls/events.
- b. Training has been provided to the manpower in 35 States/UTs. Manpower is available in 35 States/UTs.
- c. Funds have been released to 35 States/UTs for year 01.
- d. MoU has been signed by all States/UTs.
- e. Central Dashboard developed by CDAC. Data available at the national level.

- f. Disaster Button incorporated in 112 India App Android and iOS version. Citizens can also press this button through the App in the event of a disaster.
- g. Project Management Tool developed by CDAC.

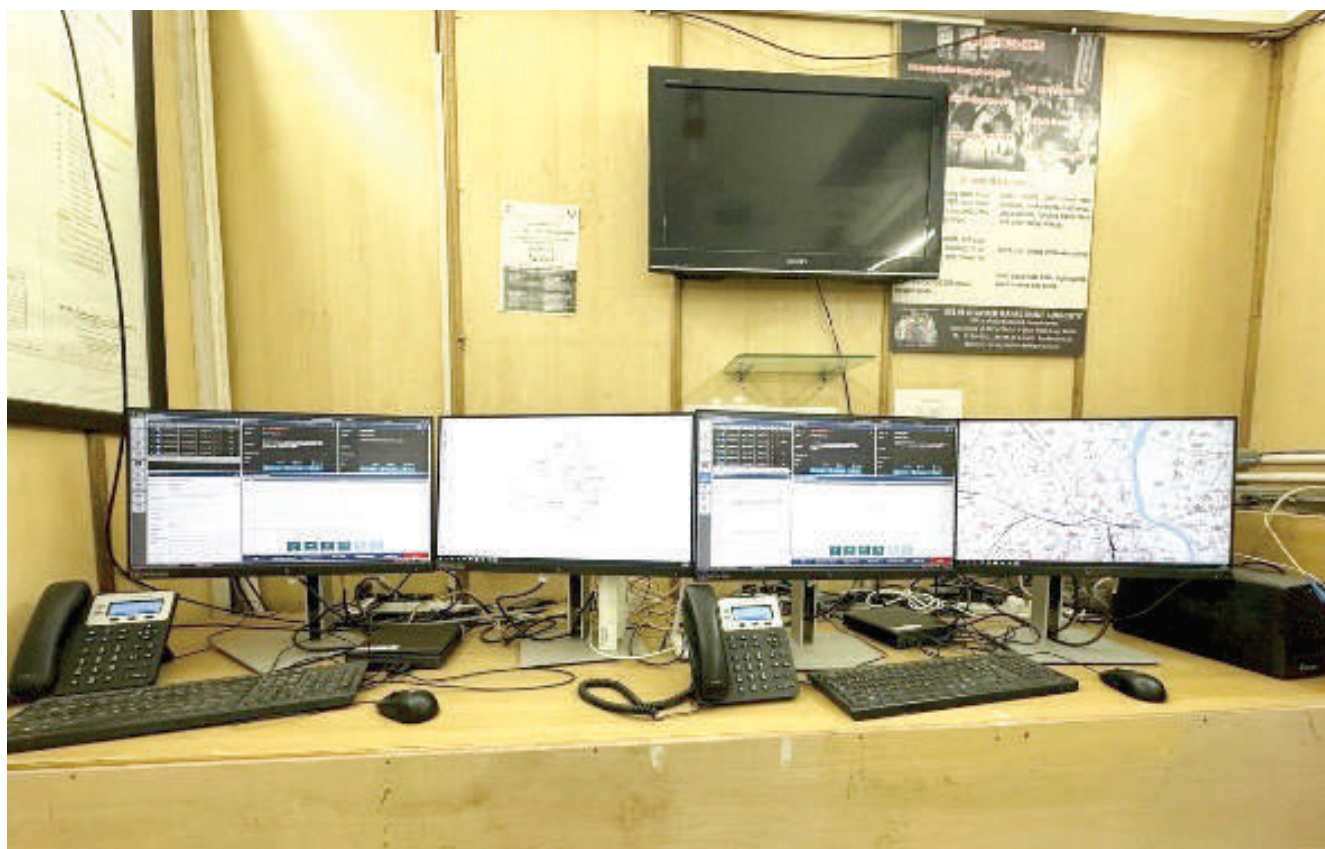
### **Highlights of the Activities Undertaken During the FY 2023-24**

- a. Signing of MoU with the State of Telangana.
- b. Deployment of Central Dashboard.
- c. Training of NDRF personnel. Sharing of platform with NDRF.
- d. Incorporation of the Disaster Button in the 112 India App for both Android and iOS versions.
- e. Testing activity with all States/UTs held on 21st, 22nd and 23rd February 2024.
- f. Training Activity in the States/UTs of Madhya Pradesh, Rajasthan, Kolkata, Gujarat, MP, Maharashtra, Tamil Nadu, Arunachal Pradesh and UP.





**Training Activity at the Kolkata SDMA held on 5<sup>th</sup> – 6<sup>th</sup> July 2023**



**ERSS System Deployed at the Delhi Disaster Management Authority**

# CHAPTER: VI

## MOCK EXERCISES & AWARENESS GENERATION

*“The more we sweat in peace, the less we bleed in war”*

*“Remember: When disaster strikes, the time to prepare has passed”*

### Introduction

6.1. India has taken rapid strides in Disaster Management (DM) since the paradigm shift ushered in by the DM Act 2005 which was further cemented by the Hon’ble PM’s 10 Point Agenda on DRR and the NPDM series. The country’s susceptibility to various disasters stemming from natural and human-induced factors presents numerous challenges for the agencies tasked with management of disasters and the affected communities. Though the hazard - vulnerability profile of India is quite well known, climate change and unsustainable development have both aggravated the hazard risk and introduced an enhanced element of unpredictability. The recent Midterm Review of the Sendai Framework highlighted a significant gap in meeting primary targets for reducing loss of life and infrastructure due to disasters. Hence effective disaster response remains a key deliverable of DM and continuous proactive efforts to enhance preparedness, capacity building and community awareness are indispensable.

The Incident Response System (IRS) has emerged as the primary mechanism for addressing disaster situations. While 22 States and Union Territories (UTs) have implemented the IRS, others are progressing towards its adoption. However, the mere notification of the IRS is insufficient for ensuring an effective and coordinated response, as it necessitates

multi-agency and multi-stakeholder coordination. Integrated Mock Exercises (ME) play a crucial role in this regard. These exercises are conducted on-ground in every State and UT of India, with multi-agency participation representing stakeholders at all levels towards. Each ME simulates a likely catastrophic disaster based on the State’s/UT’s primary hazard(s), and validates coherent “all of the Government” situation based response to multi-dimensional disaster events that are likely to occur if the primary hazard threats manifest.

### Integrated Mock Exercises

6.2 The objectives of integrated MEs are to (i) increase proficiency in practical application of the IRS-IRT construct as well as technologies that can support and enhance effective disaster response; (ii) validate the Disaster Management Plans (DMP) of the State/UTs, Districts and Departments, as well as of critical national infrastructure and for events like Shri Amarnathji Yatra; (iii) highlight the roles and responsibilities of various appointments/stakeholders involved in managing disasters as per the IRS; (iv) enhance overall coordination and that among emergency support functions (ESF) at the District level; and (v) identify and address gaps, if any, in the resources, manpower, communications, response capabilities, etc. Given the rapid turnover of DM officials, the MEs also serve as a valuable tool for efficiently integrating new incumbents into their roles.

Integrated MEs are integral to a comprehensive process that begins annually with the careful finalisation of a calendar through a consultative process involving all States/UTs. Prior to conducting MEs, detailed instructions are disseminated by the NDMA. MEs are conducted as per the following sequence:-

Step	Event	Participants
<b>Step-I</b> (D minus 10 to 7 days)	<ul style="list-style-type: none"> <li>• <b>Orientation &amp; Coordination Conference:</b> <ul style="list-style-type: none"> <li>o This is conducted on-line through video- conferencing. In this conference the detailed modalities and preparations required for the impending mock exercise are discussed and finalized.</li> <li>o Part I: Brief recapitulation of salient aspects of the IRS and its application.</li> <li>o Part II: Broad ME schedule, preparatory actions required, conduct modalities and ME scenario are explained.</li> <li>o Part III: Briefing on ERSS and Common Alerting Protocol (CAP).</li> <li>o Part IV: Details of simulations to be played during the ME are discussed and finalized including responsibilities of Central agencies like the Armed Forces, NDRF, IMD/CWC/NCS etc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Chaired by the State/UT Principal Secretary (DM) and conducted by the NDMA Coordinator.</li> <li>• District-level: DC/DM, all IRS functionaries and other stakeholders.</li> <li>• State-level: All IRS functionaries and other stakeholders.</li> <li>• Central Level: Reps of all stakeholder agencies such as Armed Force and NDRF.</li> </ul>
<b>Step II</b> (D minus 02 days)	<ul style="list-style-type: none"> <li>• <b>Table-Top Exercise (TTEx)</b> <ul style="list-style-type: none"> <li>✓ Conducted physically at the SEOC/ UTEOC/Hall with VC facilities. The TTEx rehearses IRS functionaries in their roles and responsibilities and prepares them for participation in the ME.</li> <li>✓ <b>Part I:</b> Discussion of the Hazard Risk and exercise scenario and presentation of DM Plans by nominated stakeholders.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Conducted by the NDMA Coordinator under the overall guidance of the Chief Secretary / Additional Chief Secretary / Secretary (Disaster Management) of the concerned State/UT and the Member NDMA.</li> </ul>

	<p>✓ <b>Part II:</b> Depiction of various multi-hazard situations / contingencies likely to be encountered once the envisaged disaster scenario manifests and response by the relevant agencies &amp; IRS functionaries. The following aspects are addressed:-</p> <ul style="list-style-type: none"> <li>❖ Preparedness.</li> <li>❖ Ensuring communication redundancy, gaining situational awareness and exploitation of technology including GIS.</li> <li>❖ Preparation of Incident Action Plan.</li> <li>❖ Situation based application of the IRS, including actions to be taken by important IRS functionaries and how to structure strike teams and task forces / groups for response, relief and restoration.</li> <li>❖ Resource mapping &amp; coordination with Central agencies like Armed Forces.</li> <li>❖ Establishment of IRS facilities such as ICPs and Relief Camps.</li> <li>❖ Actions by various departments such as Medical, PWD etc.</li> </ul> <p>✓ <b>Part III:</b> Final coordination for the ME.</p>	<ul style="list-style-type: none"> <li>• Physical participation by stakeholders at all levels as per charter of duties / responsibilities. Districts connect through VC.</li> </ul>
<b>Step-III</b> (D day)	Mock Exercise (ME) – conducted by the NDMA Coordinator under the overall guidance of the Chief Secretary / Additional Chief Secretary / Principal Secretary (Disaster Management) of the concerned State/UT and the Member NDMA.	



	<p>The ME validates through an observer system and physical visits by the NDMA team all aspects of effective response to multi-hazard manifestations in the IRS framework.</p> <ul style="list-style-type: none"> <li>• Preparedness including that of EOCs.</li> <li>• Planning, coordination and contingency planning.</li> <li>• Command and control.</li> <li>• SAR and relief operations in a multi-hazard dimension.</li> <li>• Restoration operations.</li> <li>• Detailed hotwash (debriefing).</li> </ul>	
<b>Step IV</b>  (D plus 15 days)	<ul style="list-style-type: none"> <li>• Final report by the State/UT to NDMA.</li> <li>• After Action Report (AAR) by NDMA coordinator.</li> <li>• Feedback on 'gaps identified', 'lessons learnt' and 'best practices' to the State/UT and, where required, to other organizations.</li> </ul>	NDMA, State/UT, jointly

6.3 Aspects of DM that are emphasized during various stages of the ME are summarised below:

- (a) The incremental steps in which the information about the disaster is gathered and a coherent response is orchestrated, including making of the Incident Action Plan.
- (b) How to structure the Task Forces/ Groups at every level, and the role of IRS appointments.
- (c) Composition, structure and functioning of various IRS facilities.
- (d) Recommended configuration of strike teams / task forces / groups for various response and restoration tasks.
- (e) How to build a reliable, fail-safe and redundant communications structure for disaster management operations. This includes how to utilize the police radio network during a disaster situation.

- (f) The three critical elements that will ensure an expeditious, credible response in the wake of a disaster:
  - i. A disaster-resilient Emergency Operations Centre (EOC); its components, equipping and functioning including SOPs / protocols.
  - ii. Importance of 'situation awareness' in the immediate aftermath of a disaster and means of attaining it.
  - iii. Importance of liaison and 'resource mapping' (including resources of Armed Forces, CAPF, PSUs, Aapda Mitra volunteers, Ex-Servicemen, Ex-CAPFs etc.) during pre-disaster periods and means of achieving resource awareness including responder status during a disaster situation / emergency.
- (g) The National Early Warning System (NEWS) for natural hazard monitoring; agencies comprising it and the web portals they are running; the information put out by each; and how to leverage this information for effective disaster management.
- (h) How to leverage portals and apps like National Disaster Alert Portal & Mobile App of "CAP based Integrated Alert System" SACHET, BHUVAN, National Database on Emergency Management (NDEM 4.0), India Disaster Resource Network (IDRN), BHUKAMP and

DAMINI etc. The National Disaster Alert Portal (SACHET) is available at <https://sachet.ndma.gov.in/> and the android and iOS version of Mobile App (Sachet) is available on Google Play & Apple Store respectively.

- (i) Importance and utilization of GIS platforms.

6.4 Integrated MEs thus provide an optimal, cost-effective means for creating proficiency in practical application of the IRS construct and for building capacity of States / UTs to respond effectively to any disaster situation. The Operations Division of NDMA has accordingly been regularly conducting integrated MEs at State / Multi-State level and in special cases, at the District level and events of mass congregations too. The response and feedback received from the States/ UTs has indeed been heartening. Stand-alone training on the IRS has also been conducted at the explicit request of the State/UT / organizations.

### Mock Exercises conducted during the Year 2023-2024

- 6.5 During the training year 01 Apr 2023 - 31 Mar 2024, NDMA has conducted 23 State and UT Level Mock Exercises. Salient features and photographs of the MEs are given below:-

Date	State, Disaster Scenario and Event	Remarks
11, 18-20 Apr 2023	<b>State:</b> Uttarakhand  <b>Scenario:</b> Earthquake & landslide / Char Dham Yatra  <b>Event:</b> Char Dham Yatra-2023	<p>To assist the State of Uttarakhand to ensure a safe, secure and incident free Holy Char Dham Yatra, a Mock Exercise on Earthquake &amp; landslide was conducted by NDMA.</p> <p>Event was Chaired by Shri Pushkar Singh Dhimi, Hon'ble Chief Minister, Uttarakhand and Co-chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA which was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA, DDMA, Line Deptts, SDRF and representatives of National Center for Seismology (NCS), Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
11, 25-27 Apr 2023	<b>State:</b> Assam  <b>Scenario:</b> Floods  <b>Event:</b> State-level Mock Exercise for State HQ and Districts.	<p>Flood is one of the prime hazards for the State of Assam. Therefore, a Mock Exercise was conducted prior to the flood season.</p> <p>Event was Chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA and Co-chaired by Secretary (Revenue &amp; DM), Government of Assam. The ME was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA and DDMA, Line Deptts and representatives of EW Agencies / Central Water Commission (CWC), Armed Forces, CAPFs and NDRF, along with all other stakeholders, participated.</p>



Date	State, Disaster Scenario and Event	Remarks
2, 10-12 Jun, 2023	<p><b>State:</b> Sikkim</p> <p><b>Scenario:</b> Earthquake and GLOF</p> <p><b>Event:</b> State-level Mock Exercise for State HQ and districts.</p>	<p>The State of Sikkim comes under Seismic Zone-IV and has a long history of earthquakes. Therefore, a Mock Exercise was conducted on Earthquake and GLOF scenario for the State.</p> <p>Event was Chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA and Co-chaired by Shri Kunja Nima Lepcha, Hon'ble Minister for LR &amp; DMD along with Chief Secretary, Govt of Sikkim. The ME was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA and DDMA's, Line Deptts and National Center for Seismology (NCS), Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>





Date	State, Disaster Scenario and Event	Remarks
30 May, 06-08 Jun, 2023	<b>State:</b> Madhya Pradesh <b>Scenario:</b> Floods <b>Event:</b> State-level Mock Exercise for State HQ and Districts.	<p>Floods are one of the main hazards in the State of Madhya Pradesh. Therefore, a State Level Mock Exercise was conducted for the State prior to the flood season.</p> <p>Event was Chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA and Co-chaired by Secretary Revenue, Govt of MP. Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA and DDMA, Line Deptts and representatives of EW Agencies / Central Water Commission (CWC), Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
30 May, 06-08 Jun 2023	<b>State:</b> Himachal Pradesh <b>Scenario:</b> Floods & Landslide <b>Event:</b> State-level Mock Exercise for State HQ & all districts	<p>The State of Himachal Pradesh is prone to Floods/ Cyclone induced floods and Landslides due to these disasters the state has experienced loss of lives and property. Therefore, a Mock Exercise was conducted on Flood &amp; Landslide Scenario for the State.</p> <p>Event was chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA and Co-chaired by Principal Secretary (Revenue &amp; DM), Govt of Himachal Pradesh, which was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA and DDMA, Line Deptts and representatives of EW Agencies / CWC, Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
14, 22 & 24 Jun 2023	<p><b>State:</b> Jammu &amp; Kashmir</p> <p><b>Event:</b> Shri Amarnath ji Yatra-2023.</p> <p><b>Scenario:</b> Earthquake, Flash Floods, Landslides, Avalanches etc.</p>	<p>The training on Disaster Management on different scenario i.e. Earthquake, Flash Floods, Landslides, Avalanches etc. has been an annual event prior to the Shri Amarnath Ji Yatra. In June 2023 too, on the request of the Shri Amarnath Ji Shrine Board, NDMA carried out training on DM for all stakeholders involved in the Yatra. The ME was conducted separately on both the routes of the Yatra, i.e, Baltal Axis (District Ganderbal) and Pahalgam Axis (District Anantnag). The ME was presided over by the Member &amp; HoD, NDMA and Secretary DMRRR, Govt of J&amp;K, DM/DC of both the Districts and Officers of the Shrine Board. First Responders viz. SDRF, NDRF, Armed Forces, CAPFs and community volunteers and other stakeholders also participated.</p>





Date	State, Disaster Scenario and Event	Remarks
04, 18-20 Jul 2023	<b>State:</b> Uttar Pradesh  <b>Scenario:</b> Floods  <b>Event:</b> State-level Mock Exercise for State HQ and Flood prone Districts.	<p>Floods are one of the primary hazards for the State of Uttar Pradesh. Accordingly, a Mock Exercise on Flood Scenario was conducted prior to the flood season.</p> <p>Event was Chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA and Co-chaired by Vice-Chairman, UPSDMA and conducted by Consultant (Ops), NDMA. Secretary (DM) &amp; Relief Commissioner, Govt of UP. Important functionaries of the State / District Incident Response Teams (IRTs), officials of the SDMA and DDMA, Line Deptts and representatives of EW Agencies / Central Water Commission (CWC), Armed Forces, CAPFs and NDRF, along with other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
19, 25-27 Jul 2023	<b>State:</b> Daman & Diu and Dadra & Nagar Haveli  <b>Scenario:</b> Cyclone & Floods  <b>Event:</b> UT-level Mock Exercise for UT HQ and Districts	<p>The UT of Daman &amp; Diu and Dadra &amp; Nagar Haveli lies in the western part of the country and is prone to Cyclone and Cyclone induced Flood disasters. Accordingly, a Mock Exercise was conducted on Cyclone and Cyclone induced disaster Scenarios.</p> <p>The event was Chaired by JS &amp; PD(NCRMP), NDMA, Co-chaired by the Secretary, Finance &amp; Revenue of the UT and conducted by Consultant (Coastal-Region). Important functionaries of the UT / District Incident Response Teams (IRTs), Officials of the SDMA and DDMA, Line Deptts and EW Agencies / IMD, Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>

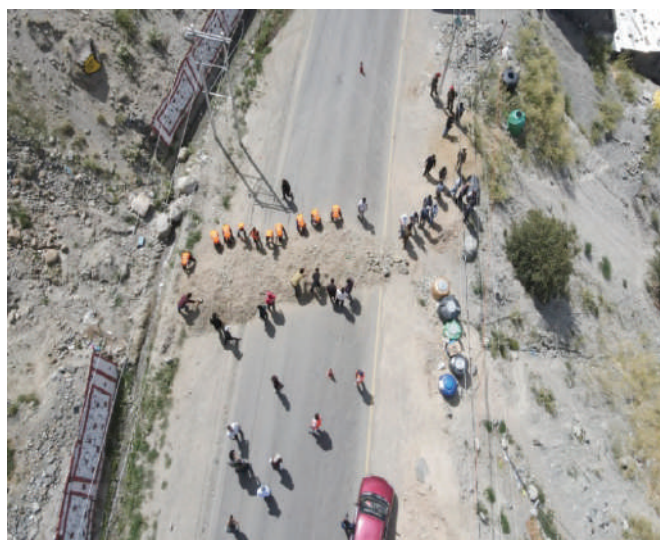


Date	State, Disaster Scenario and Event	Remarks
24, 31 Aug & 02 Sep 2023	<b>State:</b> Tamil Nadu <b>Scenario:</b> Cyclone <b>Event:</b> State-level Mock Exercise for State HQ & Districts	<p>Tropical Cyclones are one of the primary hazards for the State of Tamil Nadu. Therefore, a Mock exercise was conducted on Cyclone Scenario.</p> <p>The event was Chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA and Co-chaired by Addl Chief Secretary/Commissioner (Revenue), Govt of Tamil Nadu. The ME was conducted by Consultant (Coastal-Region). Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA and DDMA's, Line Deptts and EW Agencies / IMD, Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>





Date	State, Disaster Scenario and Event	Remarks
26 Jul, 02-04 Aug 2023	<b>State:</b> UT of Ladakh <b>Scenario:</b> Earthquake <b>Event:</b> UT-level Mock Exercise	<p>The UT of Ladakh is in Seismic Zone-IV and is highly vulnerable to Earthquake Disasters. Accordingly, a Mock Exercise was conducted on Earthquake Scenario.</p> <p>The event was Chaired by Addl Secretary, NDMA and witnessed by Hon'ble LG, Divisional Commissioner &amp; Secretary (Revenue &amp; DM), UT of Ladakh. The ME was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the UT, Incident Response Teams (IRTs), Line Deptts and representatives of NCS, Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
14, 20-22 Sep 2023	<b>State/UT:</b> Lakshadweep <b>Scenario:</b> Cyclone <b>Event:</b> UT-level Mock Exercise	<p>The smallest UT of India Lakshadweep is highly prone to Cyclonic storms during October to November every year. Accordingly, a Mock exercise was conducted on Cyclone Scenario before the on-set of Cyclonic period.</p> <p>The event was Chaired by Secretary (DM), UT of Lakshadweep and the ME was conducted by Consultant (Coastal-Region), NDMA. Important functionaries of the UT Incident Response Teams (IRTs), Line Deptts and EW Agencies / IMD, Armed Forces along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
03, 10 & 12 Oct 2023	<b>State:</b> Meghalaya <b>Scenario:</b> Earthquake <b>Event:</b> State-level Mock Exercise for State HQ and Districts.	<p>The North-Eastern Region on India is one of the most seismically active regions in the world. Two major Earthquakes (<math>M &gt; 8.0</math>) and about 20 large Earthquakes (<math>M &gt; 7.0</math>) since 1897 have occurred in this region. The State of Meghalaya, majority of which is in Seismic Zone-V, has a long history of Earthquakes. Therefore, a Mock Exercise on Earthquake Disaster scenario was conducted for the State.</p> <p>Event was Chaired by Addl Secretary, NDMA and Co-chaired by Commissioner &amp; Secretary (Revenue), Govt of Meghalaya. The Mock Exercise was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA, DDMAs, Line Deptts, SDRF and representatives of National Center for Seismology (NCS), Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>





Date	State, Disaster Scenario and Event	Remarks
27, 31 Oct-02 Nov 2023	<p><b>State:</b> Nagaland</p> <p><b>Scenario:</b> Earthquake with extreme weather conditions</p> <p><b>Event:</b> State-level Mock Exercise on Earthquake for Nagaland Emergency Preparedness Exercise (NEPEX).</p>	<p>The State of Nagaland lies under Seismic Zone-V. Thus, for Nagaland, an Earthquake is a 'medium probability-high impact' event. Therefore, a Mock Exercise on Earthquake with extreme weather conditions scenario was conducted for the State.</p> <p>Event was Chaired by Principal Secretary (Home &amp; DM), Govt of Nagaland and the Mock Exercise was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), Officials of the SDMA, DDMA's, Line Deptts, SDRF and representatives of National Center for Seismology (NCS), Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
01, 07-09 Nov 2023	<p><b>State:</b> Maharashtra</p> <p><b>Scenario:</b> Cyclone</p> <p><b>Event:</b> State-level Mock Exercise for State HQ and Districts</p>	<p>Besides other disasters like Floods/Urban Floods, the state of Maharashtra is also prone to Cyclones. Therefore, a Mock exercise was conducted on Cyclone Scenario for the State.</p> <p>The event was Chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA and Co-chaired by Principal Secretary (Relief &amp; DM), Govt of Maharashtra. The Mock Exercise was conducted by Consultant (Coastal-Region). Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA and DDMA's, Line Deptts and EW Agencies / IMD, Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>





Date	State, Disaster Scenario and Event	Remarks
09, 21-23 Nov 2023	<p><b>State:</b> Arunachal Pradesh</p> <p><b>Scenario:</b> Earthquake</p> <p><b>Event:</b> State-level Mock Exercise for State HQ &amp; districts.</p>	<p>The State of Arunachal Pradesh is situated in Seismic Zone-V with a history of major earthquakes. Mountains, mighty rivers and dense forests have typically hampered inter-communication between people living in different parts of the State. This isolation gets aggravated by natural hazards such as Earthquakes. Therefore, a Mock exercise was conducted on Earthquake Scenario for the State.</p> <p>The event was Chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA and Co-chaired by Secretary (DM), Govt of Arunachal Pradesh. The Mock Exercise was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA and DDMA, Line Deptts and representatives of NCS, BRO, Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
12, 19-21 Dec 2023	<b>State:</b> Tripura <b>Scenario:</b> Earthquake <b>Event:</b> State-level Mock Exercise for State HQ and districts.	<p>The whole North-Eastern Region of India including the State of Tripura falls under the Seismic Zone-V and has a history of Earthquakes of different magnitudes. Therefore, a Mock exercise was conducted on Earthquake Scenario for the State.</p> <p>The event was Chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA and Co-chaired by Chief Secretary, Govt of Tripura. The Mock Exercise was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), Officials of the SDMA and DDMA's, Line Deptts and NCS, Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
12, 19-21 Dec 2023	<b>State:</b> Jharkhand <b>Scenario:</b> Floods <b>Event:</b> State-level Mock Exercise for State HQ and Districts.	<p>The State of Jharkhand is prone to floods. Due to these floods the State has suffered loss of lives and property. Therefore, a Mock Exercise was conducted on Floods scenario for the State.</p> <p>The event was Conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), officials of the SDMA and DDMA's, Line Deptts and representatives of EW Agencies / Central Water Commission (CWC), Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>





Date	State, Disaster Scenario and Event	Remarks
12, 19-21 Dec 2023	<p><b>State:</b> Karnataka</p> <p><b>Scenario:</b> Floods</p> <p><b>Event:</b> State-level Mock Exercise for State HQ and Districts.</p>	<p>The State of Karnataka, besides other disasters, is prone to floods/urban floods. Therefore, a Mock Exercise was conducted on Floods scenario for the State.</p> <p>The event was Chaired by Commissioner (DM), Govt of Karnataka. The Mock Exercise was conducted by Consultant (Coastal-Region), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), Officials of the SDMA and DDMAs, Line Deptts and representatives of EW Agencies / Central Water Commission (CWC), Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>





Date	State, Disaster Scenario and Event	Remarks
03, 09-11 Jan 2024	<p><b>State:</b> Odisha</p> <p><b>Scenario:</b> Chemical (Industrial)</p> <p><b>Event:</b> State-level Mock Exercise for State HQ and districts</p>	<p>Odisha is one of the most industrialised states of the country having a large number of Chemical and Petro-Chemical Industries in vicinity of inhabited areas. Therefore, a Mock Exercise was conducted on Chemical (Industrial) Disaster Scenario for the State.</p> <p>The event was Chaired by Addl Chief Secretary &amp; Special Relief Commissioner, Govt of Odisha. The Mock Exercise was conducted by Consultant (Coastal-Region), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), Officials of the SDMA and DDMA, reps. of DG FASLI, CPCB, SPCB, Department of Factories/ Industries, Major Accident Hazard (MAH) units and representatives of the Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
02, 13-15 Feb 2024	<p><b>State/UT:</b> UT of Puducherry</p> <p><b>Scenario:</b> Cyclone and Cyclone Induced Disasters</p> <p><b>Event:</b> UT-level Mock Exercise</p>	<p>The UT of Puducherry lies in the southern part of the Indian Peninsula in Bay of Bengal. The major portion of the UT is prone to many natural hazards like Floods, Cyclones and Earthquakes and is mainly influenced by North East monsoon. Therefore, a Mock Exercise was conducted for the UT on Cyclone and Cyclone induced disasters.</p> <p>The event was Chaired by Secretary, UT of Puducherry. The Mock Exercise was conducted by Consultant (Coastal-Region), NDMA. Important functionaries of the UT/ District Incident Response Teams (IRTs), Line Deptts and representatives of EW Agencies / IMD, Armed Forces and NDRF, along with other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
06, 21-22 Feb 2023	<b>State:</b> UT of Chandigarh <b>Scenario:</b> Earthquake <b>Event:</b> UT-level Mock Exercise for UT HQ.	<p>Chandigarh, "The City Beautiful", a well-planned city of the country spread over an area of 140 Sq Kms is prone to Earthquake Disasters. Therefore, a Mock Exercise on Earthquake Disaster scenario was conducted for the UT.</p> <p>The event was Chaired by Home Secretary, UT of Chandigarh. The Mock Exercise was conducted by Consultant (Ops), NDMA. Important functionaries of the SDMA Incident Response Teams (IRTs), Line Deptts, SDRF and representatives of National Center for Seismology (NCS), Armed Forces, CAPFs and NDRF along with all other stakeholders participated.</p>





Date	State, Disaster Scenario and Event	Remarks
26 Feb, 05-07 March 2024	<p><b>State:</b> Andhra Pradesh</p> <p><b>Scenario:</b> Chemical (Industrial)</p> <p><b>Event:</b> State-level Mock Exercise for State HQ &amp; districts</p>	<p>Andhra Pradesh is one of the most industrialised states of the country having a large number of Chemical and Petro-chemical industries in vicinity of inhabited areas. Therefore, a Mock Exercise was conducted on Chemical (Industrial) Disaster Scenario for the State.</p> <p>The event was Chaired by Director (DM &amp; Managing Director), APSDMA. The Mock Exercise was conducted by Consultant (Coastal-Region), NDMA. Important functionaries of the State/ District Incident Response Teams (IRTs), Officials of the SDMA and DDMA, DG FASLI, CPCB, SPCB, Department of Factories/ Industries, Major Accident Hazard (MAH) units and representatives of the Armed Forces, CAPFs and NDRF along with all other stakeholders participated.</p>



Date	State, Disaster Scenario and Event	Remarks
14, 26-28 Mar 2024	<p><b>State/UT:</b> NCT of Delhi</p> <p><b>Scenario:</b> Earthquake</p> <p><b>Event:</b> UT-level Mock Exercise for NCT of Delhi.</p>	<p>Delhi, the historic city and the Capital of India comprises of High Rise buildings, tunneled Metro Network, large number of Flyovers and densely populated suburb areas. Therefore, a Mock Exercise was conducted for the UT on Earthquake Disaster Scenario.</p> <p>The event was Chaired by Lt General Syed Ata Hasnain (Retd), Member, NDMA. The Mock Exercise was conducted by Consultant (ME &amp; IRS), NDMA. Important functionaries of the DDMA, Incident Response Teams (IRTs), Line Deptts and representatives of National Center for Seismology (NCS), Armed Forces, CAPFs and NDRF, along with all other stakeholders participated.</p>



## Sharing of Feedback after the conduct of State/UT Level Mock Exercise:

6.6 After successful conduct of each Mock Exercise, the feedback/lessons learnt is shared with concerned State / UT highlighting best practices and gaps identified to improve their preparedness and build their capacities in order to achieve the goal of making India a disaster resilient country.

## Joint Mock/ Mock Exercises with Foreign countries

6.7 Annual Joint HADR Exercise for Tri-Services (AJHE) - 2023 was held on 09-11 Oct 2023 at Goa. The AJHE was conducted by Indian Navy with the participation of MEA, HQIDS, IMD, various Government and State Agencies for efficient and effective response in order to save precious lives at the time of need and also to build resilience with neighboring countries.

## Preparedness to handle CBRN contingencies during G20 summit

6.8 India assumed the presidency of G20 for a period of one year i.e. 01st Dec 2022 to 30th Nov 2023. During that period more

than 200 meetings were hosted across the country. VVIPs/Delegates from G20 members' countries as well as International Organizations participated in these events. NDMA conducted series of meetings for preparedness to deal with CBRN contingencies with better coordination amongst various Ministries/ Departments/ Organizations/ Stakeholders i.e. MEA, DAE, DRDE, DRDO, NSG, NDRF, Delhi Police etc. to ensure safe, secure and incident free G20 summit from CBRN perspective. The following preparatory Exercises/Table-top Exercises were conducted by NDMA:-

(a) Disaster preparedness for Airports (Non aviation related) from CBRN perspective: A concept note for preparedness of Airports on CBRN perspective was prepared and Disaster Preparedness Exercises/Table-top Exercises from CBRN perspective of Airports i.e., Mumbai, Kolkata, IGI (New Delhi), AFS (Palam), Chennai & Bangalore airports were conducted. During these events concerned stakeholders like AAI, Airport Management, NDRF, DAE, SDMAs were also taken on board.



- (b) Disaster preparedness Exercises/Table-top exercises on CBRNe perspective for Hotel clusters in Delhi identified for the foreign delegates to stay during G20 summit were conducted. In this series, Table-top/Mock Exercises were conducted for Hotel Taj Palace, Hotel Le Meridien, Hotel Leela. During these events various ministries/departments/stakeholders like MHA, MEA, MoD, MoHFW, DAE, NDRF, NSG, Delhi Police, Fire & Emergency Services and Hotel Administrations etc. participated.
- (c) Disaster preparedness for Indian Trade Promotion Organisation (ITPO): The main event of G20 summit was organised at Bharat Mandapam located inside ITPO complex, hence, Disaster Preparedness exercises/table-top exercises from CBRN perspective for ITPO complex was also conducted with stakeholders like HQ IDS, NSG, ITPO staff, Delhi Police, NDRF, DAE, Delhi Disaster Management Authority (DDMA) were also taken on board.

## District-level Mock Exercise Programme by NDRF

### 6.9 Review by Hon'ble Home Minister

The Hon'ble Union Home Minister carried out a review of the country's DM activities on 30 June 2020 and directed that Mock Exercises should be conducted in each district of the country at least once in a span of three years for the following purposes:

- To ensure that every district can constitute field trained teams for disaster response.
- To test the efficacy of every district's disaster management plans and its preparedness component.
- To bring in greater cohesion and coordination amongst, and between, different stakeholders.

6.10 In accordance with the directions, the NDRF has been assigned to conduct Mock Exercises at the district level. The District level MEs conducted by NDRF since 2020-21 onwards are as under:

Financial Year	Districts covered
2020-21	98
2021-22	239
2022-23	331
2023-24	283
2024-25	Planned for 250 Districts

6.11 NDMA has circulated Annual District level Mock Exercise programs for the training year 2024-25 covering 250 districts with direction to all District Magistrates, to coordinate the dates with NDRF and undertake district level Mock Exercise with participation of all concerned stakeholders.

## Greater Involvement and Leadership of Women in Disaster Risk Management

6.12 Concerted efforts have been made by NDMA in consultation with MHA to provide authorized GD Mahila personnel from CAPFs to respective NDRF Bns on deputation. Resulting, total 377 GD Mahila personnel have joined NDRF.

### 6.13 Meetings/ Debriefing Sessions Post Major Incidents

- (a) Meeting to Review Pre-Monsoon situation for South-West Monsoon was conducted by NDMA on 03 May 2023. The representatives from Early Warning Agencies, Response Agencies and Resident Commissioners of flood prone States/UTs attended. In the meeting presentations were made by various agencies including IMD, CWC, NRSC and NDRF. HQ IDS and DM Division, MHA also provided inputs on the subject. In the meeting, deliberations were made regarding SDRF, CD Volunteers, Home Guard, Aapda Mitra, Nomination of Nodal Officers by States/UTs for better coordination, Pre-Monsoon deployment of NDRF and Advanced coordination with Armed Forces.
- (b) NDMA also participated in Annual Conference of Relief Commissioners/ Secretaries, Departments of Disaster Management of States/UTs conducted by MHA under the Chairmanship of Union Home Secretary on 26 May 2023 to review the status of preparedness for South-West Monsoon. Presentations were made by various Central agencies including IMD, CWC, GSI, NRSC (ISRO), HQ IDS (MoD), NIC, MHA, NDRF and some States followed by deliberations regarding South-West Monsoon

Preparedness and sharing of best practices and lessons learnt.

- (c) NDMA conducted a debriefing session with NDRF, State Disaster Management Punjab, District Magistrate Ludhiana and other concerned agencies on 08 May 2023 regarding response activities carried out by them during Hazardous Gas Leakage Incident in Ludhiana, Punjab which took place on 30 Apr 2023. During the meeting detailed deliberations were made to identify Gaps, requirement of capacity building of NDRF and State Disaster Response Force to deal with such Chemical emergencies.
- (d) For prevention of fatal incidents by falling into borewell/tubewells in the country, a meeting was held on 12 Jun 2023 with MHA, Ministry of Jal Sakti, Panchayati Raj, MoHUA, MoA&FW, CGWB, NIDM and NDRF during the deliberation importance on enforcement of guidelines issued by Hon'ble Supreme Court of India was reiterated.
- (e) Post the Balasore (Odisha) train accident which happened on 02 Jun 2023, NDMA conducted a debriefing session on 13 Jul 2023 with Ministry of Railway, MHA, NIDM, IDS, NDRF, RPF and representative of State Government of Odisha. Presentations were delivered by Ministry of Railway, NDRF and ODRF on mobilization of response forces, Gaps identified and lesson learnt during the said train accident.
- (f) Post the Sikkim flash flood incident on 04 Oct 2023, a meeting was convened on 06 Oct 2023, with representatives from CWC, IMD, GSI, and NRSC to



assess the evolving flood situation in Sikkim and the North Bengal Region. During the meeting, the status of flood-affected areas was reviewed and necessary relief measures were initiated.

- (g) On 06 Dec 2023, the NDMA convened a meeting with relevant agencies and state authorities to closely monitor the situation following the cyclone in Tamil Nadu.

### Visits by Members, NDMA to NPP

6.14 Following Nuclear Power Plants (NPP) were visited by Member & HoD/ Members, NDMA for Off-Site Emergency Exercise (OSEE) :-

- (a) Shri Rajendra Singh, Member NDMA visited NPP, Kaiga (Karnataka) on 02 Nov 2023.
- (b) Lt General Syed Ata Hasnain (Retd), Member, NDMA visited NPP Kalpakkam on 31st Aug 2023 and NPP, Rawatbhata (Rajasthan) on 18 Jan 2024. Visit to NPP Narora was cancelled at last minutes due to constraints raised by District Administration.

### Collaboration with Armed Forces towards Capacity Building and Engagement with Para Military Forces for Optimisation of Disaster Management Resources

6.15 Post, the 04 October 24, Glaciated Lake Outburst Floods (GLOF) in Sikkim, a meeting was held under the Chairmanship of National Security Advisor, India at the Prime Minister's Office (PMO) wherein Lt General Syed Ata Hasnain (Retd), Member, NDMA emphasized that one of the lesson learnt during the Sikkim GLOF was the need to conduct an in-depth assessment of impact of climate change on Armed

Forces operational planning and conduct. To take forward the above proposal NDMA has undertaken following activities:-

- (a) **MOUs.** NDMA held meetings with senior officials from the Centre for Land Warfare Studies (CLAWS) and the Centre for Air Power Studies (CAPS). Based on the decisions made during these meetings, NDMA is currently in the process of finalising MOUs with CLAWS and CAPS for sponsored studies and conduct of workshops/seminars on Armed Forces and Disaster Management/Disaster Risk Resilience, under the overarching guidance of NDMA.
- (b) **Tri-Services Study Group.** NDMA has nominated a Member for Tri-Services Study Group steered by HQ IDS for preparing a comprehensive report on forecasting of probable disaster and early warning mechanisms in border areas, measures to prevent/reduce the impact of such disasters, requirement of resources for effective and timely mitigation of the impact of such disasters to reduce vulnerability of the Armed Forces, propose mechanism for interministerial coordination, incorporation/ involvement of Armed Forces and CAPF deployed in border areas into planning and implementation of disaster management response by state governments and equipping and training of selected Armed Forces units with area specific Disaster Management equipment.
- (c) **Meeting with Sashastra Seema Bal (SSB).** A meeting chaired by Lt. General Syed Ata Hasnain (Retd), Member, NDMA, was held with Senior Officers of the SSB on 14 March 2024, to address the requirements and proposals of the

SSB. Discussions during the meeting also focused on proposed deployment locations for the 18 Rescue and Relief Teams (RRTs) of SSB, aimed at optimizing disaster management resources and response strategies.

### Finalization of Annual ME Calendar for the year 2024-25:

6.16 In order to prepare Annual Mock Exercise calendar for the training year 2024-25, consultative conferences with all the

States and UTs were held on 28 Feb 2024. Accordingly Mock Exercise Calendar has been circulated to all the States/UTs.

### Additional Activities

6.17 During the FY 2023-2024, the NDMA provided specialized guidance, organized awareness campaigns, and conducted workshops on various topics for a wide range of agencies and organizations. Some of these are mentioned below:-

Date	Topic / Event
24 Apr 2023	Participated in Inter-Ministerial meeting for QUAD consequences management exercise conducted by Ministry of External Affairs.
20 & 21 Jul 2023	Participated in the 'Conference & Mock Exercise' organised by Central Vista Overnight Committee (CVOC) at New Delhi.
30-31 Aug 2023	Attended 'Regional HADR Conclave/TTEX' organised by HQ 17 Corps, Panagarh (West Bengal).
12 Oct 2023	Attended 'National Maritime Search and Rescue (NMSAR)' Board meeting held at Kolkata.
22 Nov 2023	Conducted a meeting with Govt of NCT of Delhi on Earthquake Preparedness.
24-25 Nov 2023	Attended '09th National Level Pollution Response Exercise (NATPOLREX-IX)' held at Vadinar, Gujarat.
15 & 18 Jan 2024	Participated in conduct of Table Top Exercise (TTEX) and ME on Dirty Bomb scenario conducted by NSG at Hotel Taj Man Singh, New Delhi.

### 6.18 Subhash Chandra Bose Aapda Prabandhan Puraskaar

The award "Subhash Chandra Bose Aapda Prabandhan Puraskar (SCBAPP)" was conceived by Govt. of India in the year 2018-19. This award is given annually to 'Individuals/Institutions' to recognize outstanding contribution by individuals and Institutions in the field of Disaster Management. The fields encompass Prevention, Mitigation, Preparedness, Rescue, Response, Relief, Rehabilitation, Research/Innovations and Early Warning. Subhash Chandra Bose Aapda Prabandhan Puraskar for the year 2024 has been awarded to 60

Parachute Field Hospital, Uttar Pradesh under the Institutional Category.

### Awareness Generation

6.19 In its endeavour to spread awareness amongst the masses, Public Relations & Awareness Generation (PR&AG) Division takes various public awareness initiatives through print and electronic media, including on social media, from time to time, throughout the year. The focus is on building an appropriate environment by informing, educating and communicating the masses as well as all the stakeholders for a disaster resilient society. These

awareness campaigns are run through mediums such as TV, Radio, Print, Exhibitions during events, Social Media, etc. The awareness campaigns have two prime objectives:

- Preparing citizens for any impending disasters (earthquake, cyclone, floods, landslides, Thunderstorm & Lightning, etc.)
- Informing and educating people on various preventive and mitigating measures to reduce losses to the maximum extent.

6.20 Following awareness campaigns were carried out during 2023-24 (from 01.04.2023 to 31.03.2024)

### Audio-Visual Campaigns

6.21 Audio-Video spots on natural disasters such as Cyclone, Thunderstorm & Lightning and Heat Wave were telecast/broadcast through the networks of Doordarshan and All India Radio. Multiple spots containing do's and don'ts on disasters were run in the respective disaster prone regions. Details of campaigns run during the year are as under:

Disaster/Hazard	Doordarshan	All India Radio
Cyclone	7 days from 12/05/2023 to 18/05/2023	7 days from 12/05/2023 to 18/05/2023
Thunderstorm & Lightning	10 days from 22/06/2023 to 01/07/2023	7 days from 22/06/2023 to 28/06/2023
Heat Wave	7 days from 08/03/2024 to 14/03/2024	7 days from 08/03/2024 to 14/03/2024

### 6.22 Publicity of Subhash Chandra Bose Aapda Prabandhan Puraskar (SCBAPP):

An Award to recognize the selfless and excellent work done by individuals and institutions in the country in the field of Disaster Management i.e. Subhash Chandra Bose Aapda Prabandhan Puraskar (SCBAPP) which is usually announced every year on 23rd January on the birth anniversary of Netaji Subhash Chandra Bose, was advertised on 01/07/2023 in leading national and regional newspapers to receive nominations with last date as 31.8.2023. The advertisement was re-issued on 01.09.2023 for extending last date upto 30.9.2023. For wider publicity to receive maximum nominations/applications, intensive and continuous campaign was run on social media and audio video creative was advertised on TV

during the 'Aapda Ka Saamna' Programme of NDMA on DD News and regional channels.

6.23 **"Aapda Ka Saamna" a special programme of Panel Discussion/Talk Show on Doordarshan:** For creating awareness amongst public, NDMA has running a special programme in the format of discussion/talks with a panel of experts on a relevant disaster/topic on DD News titled "Aapda Ka Saamna". Two episodes of this programme are usually recorded and telecast in a month. The episodes is usually telecast on Sunday on DD News and re-telecast on the following Saturday through regional channels of DD in respective languages. Total 17 episodes were telecast and re-telecast during the year as per details of episodes given under:



Sl.No.	Episode	Date of Telecast	Date of Re telecast
1.	Heat Wave	16 April 2023	22 April 2023
2.	Cyclone	7 May 2023	13 May 2023
3.	Forest Fire	21 May 2023	27 May 2023
4.	Thunderstorm & Lightning	28 May 2023	03 June 2023
5.	Flood	11 June 2023	17 June 2023
6.	Landslide	25 June 2023	01 July 2023
7.	Urban Flood	09 July 2023	15 July 2023
8.	Community Based Disaster Risk Management	23 July 2023	29 July 2023
9.	Fire Safety	27 Aug 2023	16 Sep 2023
10.	Earthquake	6 Sept 2023	9 Sept 2023
11.	A Vision for Disaster Mitigation	24 Sept 2023	26 Sept 2023
12.	GLOF	5 Nov 2023	2 Dec 2023
13.	Cyclone	10 Dec 2023	10 Feb 2024
14.	Hospital Preparedness	24 Dec 2023	3 Feb 2024
15.	Avalanche	7 Jan 2024	27 Jan 2024
16.	Heat Wave	10 March 2024	16 March 2024
17.	Earthquake	17 March 2024	23 March 2024

### Digital News Letters of NDMA :

6.24 A digital monthly newsletter named “Aapda Samvaad” is issued by NDMA through the e-sampark network of the Govt. and through e-mails and whatsapp groups of different stakeholders. The newsletter

contains major activities and engagements of NDMA with the stakeholders, articles/papers written by experts on the dedicated theme of the Issue, dos and donts, IEC material, including short videos on the relevant topic, etc. Details of newsletters issued during the year are as under:

Sl.No.	Month/Issue	Theme
1.	April 2023	Heatwave
2.	May 2023	Forest Fire
3.	June 2023	Cyclone
4.	July 2023	Flood and landslide
5.	August 2023	Flood
6.	September 2023	Formation Day Special
7.	October 2023	Earthquake
8.	November 2023	Cyclone and Earthquake
9.	December 2023	Coldwave

### Social Media Campaigns

6.25 In addition to awareness campaigns on TV and Radio, awareness campaigns related to prevention, mitigation, and preparedness before, during and after disasters were also carried out social media platforms using hashtags like beattheheat, heatwave, earthquake, floods, urbanfloods, lightningsafety, coldwave, avalanche, etc. throughout the year. Social media creatives and short films highlighting do's and don'ts were shared on social media platforms of NDMA, from time to time.

### Social Media Accounts Statistics :

6.26 NDMA has presence on X, Facebook, Instagram, YouTube and LinkedIn. Followership of NDMA handles are increasing day by day organically. The follower base of these handles, as on 31.3.2024, are as under:

- X : 417K
- Facebook : 304K

- Instagram : 3K
- YouTube subscribers :9.35 K

### Celebration of 18th Formation Day of NDMA

6.27 19<sup>th</sup> Formation Day of NDMA was celebrated on 27.9.2023 at Vigyan Bhawan, New Delhi with the theme 'A Vision for Disaster Mitigation'. Shri Suman Bery, Vice Chairman, NITI Aayog, graced the occasion as the Chief Guest. During the Technical Sessions, deliberations were held on i) Landslide Mitigation and National Landslide Mitigation Programme and ii) Role of Emerging Technologies in Disaster Management. In addition, three States viz. Maharashtra, Himachal Pradesh and Kerala shared their experience and best practices on Landslide Mitigation and National Landslide Risk Mitigation. Representatives from Deptt. of Telecommunications, Meta India, Google India and Elena Geo Systems Pvt. Ltd. deliberated upon Role of Emerging Technology in Disaster Management in the second part of Technical Session. While representative from Meta India presented Role of Emerging Trends and their application to Disaster Management, representative from Google India presented Android Earthquake Alerts and other Google initiatives for Disaster Management. Representative from Elena Geo Systems Pvt. Ltd. presented Navic System for Disaster Management.

Following video / documents were launched on the occasion:

- A Short Video: Upscaling of Aapda Mitra Scheme: The Chief Guest unveiled a video showcasing the expansion of the Aapda Mitra scheme. Celebrating its second anniversary, the Aapda Mitra scheme, an unprecedented

Government of India initiative grounded in the spirit of volunteerism, empowers first responders during disasters. The video launch aimed to showcase the scheme's successful implementation and recognize the unwavering commitment, courage, and selflessness of Aapda Mitra volunteers.

- (ii) **Aapda Mitra: Key Concept and Achievement:** The Chief Guest and the dignitaries on dais released a booklet on the Upscaling of Aapda Mitra Scheme on the occasion. The Aapda Mitra scheme, a transformative initiative designed to train one lakh community volunteers nationwide, has made a lasting impact on India's community-based disaster management. The visionary leadership and comprehensive training, coupled with providing volunteers with professional emergency responder kits and medical insurance, have been instrumental in this success.
- (iii) **Training Modules on Psychosocial Care in Disasters:** In yet another pioneering initiative, NDMA, in collaboration with the National Institute of Mental Health and Neuroscience, developed psychosocial care training modules. Covering psychosocial first aid, psychosocial care in disasters, psychosocial preparedness, and disaster mental health services, these crucial training modules underscore NDMA's dedication to comprehensive disaster management. Four volumes of the Training Modules were launched on the occasion.
- (iv) **Training Modules on Hospital Disaster Management:** Acknowledging the importance of a holistic approach, NDMA has introduced modules

for Hospital Disaster Management (HDM). These modules address various stakeholders within a hospital setting, empowering them to ensure safety through a multi-hazard and interdisciplinary approach. Five volumes of the Training Modules include basic, intermediate, advanced, and assessor components.

- (v) **Compendium on Traditional Earthquake Resilience Construction Practices:** To preserve and promote traditional earthquake resilience construction practices, NDMA released a compendium on the occasion. This valuable resource encapsulates traditional wisdom contributing to the resilience of structures during seismic events. The compendium serves as a testament to NDMA's commitment to preserving cultural heritage in disaster resilience.

### Announcement of MyGov activities and felicitation of winners of Quiz:

As part of its continuous efforts to raise awareness and promote disaster management across the nation, NDMA conducted a series of awareness and promotional activities on MyGov platform from August 22, 2023, to September 21, 2023. Brief details of the activities conducted on MyGov were:

- i. **The Pledge: Responsible Citizen in Action; Our Promise for Disaster Preparedness:** NDMA encouraged citizens to make a promise for disaster preparedness.
- ii. **A quiz competition titled "Prepare to Prevail: Disaster IQ Test, Test your preparedness skills"** alongside this pledge, a quiz competition was organized to test participants' preparedness skills.



### iii. Artful Preparedness Poster

**Competition:** NDMA also held a poster-making competition aimed at promoting disaster preparedness, resilience, and management. This activity aimed to encourage participants to express their creativity and visual storytelling skills while raising awareness about disaster management. Entries of poster making competition were under scrutiny for selection of winners.

These activities garnered significant participation, with approximately 20,000 individuals taking part in the competitions.

**Quiz Competition Winners:** The quiz competition was designed to challenge participants' knowledge of disaster preparedness, response, and recovery through rigorous rounds of quizzing. The winners of the quiz competition were felicitated by presenting them with a book and memento of NDMA by the Chief Guest:

- **First Place (Champion):** Mr. Manoj Kumar, currently pursuing his Masters in Computer Applications from

IGNOU and serving as a Nehru Yuva Kendra (NYK) volunteer in New Delhi, emerged as the champion of the quiz competition. His outstanding knowledge and dedication were truly commendable.

- **Second Place:** Miss Anushka Seni, a Class 10 student from DAV Centenary School, Question Vihar, New Delhi, secured the second position. Her remarkable expertise in disaster-related topics earned her this recognition.
- **Third Place:** Mr. Vidit Kumar, a Class 9 student from Jhajjar, Haryana, showcased an exceptional grasp of disaster management concepts. He demonstrated his commitment by missing an exam to attend the event.

The quiz competition winners also received cash prizes of rupees 5,000 for the first place, rupees 3,000 for the second place, and rupees 2,000 for the third place later in their bank accounts.



**Inauguration by :** Shri Suman Bery, Vice Chairman, NITI Aayog





More than 450 participants from different Ministries/Deptts, Resident Commissioners, DGs of CAPFs States/UTs, SDMAs, related organizations and trained Aapda Mitra volunteers attended the Formation Day.

**6.28 Events/Exhibition:** NDMA participated in a exhibition organized by India Meteorology Department (IMD) at Vigyan Bhawan on 15.1.2024 on its 150<sup>th</sup> Anniversary. IEC material, guidelines, pocketbooks, standees, etc. of NDMA were displayed in the exhibition.

**6.29 Communication with States/UTs:** NDMA has produced more than 160 shorts Films on Cyclone, Flood, Lightning, Heat Wave, Earthquake, Landslide, Avalanches, Cold Wave and Urban Flood disasters for awareness generation among the people. In addition to uploading these films on NDMA's website and YouTube channel, all States/UTs were requested to make use of these films for awareness generation in their respective States/UTs., from time to time.

Three important documents viz. Disaster Management (DM) Act, 2005, National Disaster Management Policy, 2009 and National Disaster Management Plan (NDMP), 2019 were to be translated into

Scheduled Regional languages. Respective States were requested to get these documents translated into their respective scheduled language(s) and put the same on their website for use by general public and other stakeholders. Four States viz. Gujarat, Sikkim, Tamilnadu and Jammu & Kashmir have completed the task. Remaining States are being followed up regularly to expedite.

**6.30 IEC material:** NDMA has various short video spots, animation films, sign language videos for awareness generation. These materials are available on NDMA's website as well as on NDMA's YouTube channel namely 'National Disaster Management Authority of India' for awareness generation. These materials are being used by NDMA from time to time on electronic and social media.

**6.31** The awareness generation actions enumerated above certainly have helped the people of the country in saving lives and livelihood. It may be appreciated that followership of NDMA's social media account i.e. Twitter has been gaining steady increase. IEC activities of NDMA have, thus, a very crucial element in awareness generation of the people and all stakeholders.



# CHAPTER: VII

## ADMINISTRATION AND FINANCE

### General Administration

#### NDMA Secretariat

7.1 The NDMA Secretariat comprises five Divisions, namely (i) Policies, Plans, Rehabilitation & Recovery, Awareness Generation and Capacity Building & Training Division (ii) Mitigation Division (iii) Operations and Communications Division (iv) Administration and Coordination Division and (v) Finance and Accounts Division.

#### **Policies, Plans, Rehabilitation & Recovery, Capacity Building & Training and Awareness Generation Division**

7.2 The division deals with all matters pertaining to the formulation of policies, guidelines and approval of plans of all the Central Ministries/Departments as well as capacity building and awareness in all the States. Mainstreaming disaster management in development plans is also an important task of this division. Capacity Building and Training is another important work of this Division. It undertakes various activities and projects towards capacity building and training.

7.3 Public Relation and Awareness Generation is a major subject to be dealt with by the NDMA, is another task of this division. This division has taken up the task to lead this effort and ensure that the culture of preparedness is inculcated at all levels. It also handles conceptualization and execution of awareness generation

campaigns involving both electronic and print media, besides involvement of the community and other stakeholders at the grassroots level. The total sanctioned staff in this division is 20, comprising one Advisor (JS level), four Joint Advisors (Director Level), four Assistant Advisors (US level) one Section Officer and ten support staff.

#### Mitigation Division

7.4 The responsibilities of this division are to take up Risk Mitigation Projects at the national level in conjunction with the Ministries of the Central Government and the States (pertaining to disasters like cyclones, earthquake, floods, landslides and failsafe Communication and IT plan etc.). It also guides and commissions specialized studies and projects like Micro-Zonation, Vulnerability Analysis, etc. It also supervises and monitors the design and implementation of the mitigation projects to be undertaken by the Ministries themselves. The total sanctioned staff in this division is 14, comprising one Advisor (JS level), two Joint Advisors (Director level), two Assistant Advisors (US level) and nine support staff.

#### Operations and Communication Division

7.5 NDMA needs to be in a state of readiness to render advice to the Government on disaster situations for which it must remain fully apprised of the latest information. For this, NDMA has an Operations Centre which

provides disaster specific information and data inputs of NDMA Officers. The Division co-ordinates the efforts of all stakeholders during the response stage of any Disaster. It also has a major role in training and capacity building of first responders in the country. The Division conducts State and Multi-State level Mock Exercises ensuring participation of all stakeholders including Central Agencies, Armed Forces and CAPFs. The division is also involved in DM related training activities including training on IRS and raising awareness at premier institutions in the country. In addition, the division is closely involved with the tasks relating to Rehabilitation and Recovery. The Division vets the Crisis Management Plans of all the Central Ministries/Departments.

- 7.6 The Division implements communication and IT related solutions for NDMA. It also advises and carries out capacity building of all Central and State Ministries/Departments in the field of Communication, IT and GIS. The total sanctioned staff in this division is 15, comprising one Advisor (JS level), two Joint Advisor (Director level), three Assistant Advisors (US level), two Duty Officers (US level) and seven support staff.

### **Administration and Coordination Division**

- 7.7 This division is responsible for all aspects of Administration and Coordination. Its activities involve extensive interface with the Ministries/ Departments and States. This division also provides administrative and logistic support to the Members and the staff of the NDMA at all levels. The total sanctioned staff in this division is 22, comprising one Joint Secretary, one Director, two Under Secretaries, one

Assistant Director (OL), two Section Officer and 15 support staff.

### **Finance and Accounts Division**

- 7.8 The Finance and Accounts Division deals with the work relating to maintenance of accounts, preparation of budget, financial scrutiny of proposals, etc. This Division also monitors progress of expenditure and advises NDMA on all matters falling within its delegated financial power. The total sanctioned staff in this Division is 8, comprising one Financial Advisor (JS Level), one Director, one Asst. Financial Advisor (US Level), one Section Officer, two Asst. Section Officer (ASO) and 2 support staff. Details of its functions and responsibilities are:

- Advise NDMA on all matters falling within the field of delegated powers.
- Associate closely with the formulation of schemes and important expenditure proposals from their initial stages.
- To watch settlement of audit objections, Inspection reports, Draft Audit Paragraph etc.
- To ensure prompt action on Audit Reports, Reports of Public Accounts Committee (PAC) and Estimates Committee.
- To ensure timely submission of periodical reports and returns.
- Preparation and Monitoring of budget of NDMA

- 7.9 The accounts of NDMA are maintained by the office of Chief Controller of Accounts (CCA), Ministry of Home Affairs, Payment and receipt functions for NDMA are also managed by the PAO, NDMA under the supervision of CCA, Ministry of Home Affairs.

## Finance and Budget:

The Scheme wise Budget Estimate, Revised Estimate & Expenditure for the period April 2023 to March, 2024 is as follows:

(Rs. in Crores)

Name of the project	B.E 2023-24	RE 2023-24 (Final)	Exp. up to 31.03.2024
National Cyclone Risk Mitigation Project (NCRMP) with World Bank Assistance	110.00	2.43	2.35
Other Disaster Management Projects - (ODMP)	16.39	8.28	8.17
Establishment Charges	61.84	58.78	42.82
Coalition for Disaster Resilient Infrastructure Society (CDRI)	50.00	50.00	50.00

Grant No. 49 MHA				(Figures in Crores)
MH	Scheme	B.E. 23-24	RE 23-24 (Final)	Exp. up to 31.3.2024
2245	ODMP	6.03	1.62	1.51
3601	ODMP (Release to State Govt.	10.00	6.39	6.39
3602	Release to UT w/o Legis)	0.36	0.27	0.27
	<b>Total (a)</b>	<b>16.39</b>	<b>8.28</b>	<b>8.17</b>
2245	NCRMP (Est. Charges)	11.00	2.43	2.35
3601	NCRMP (GIA)	99.00	0	0
	<b>Total (b)</b>	<b>110.00</b>	<b>2.43</b>	<b>2.35</b>
2245	Establishment Charges	61.84	58.78	42.82
	<b>Total (c)</b>	<b>101.08</b>	<b>61.19</b>	<b>45.23</b>
2245	CDRI Establishment Charges	50.00	50.00	50.00
	<b>Total (d)</b>	<b>50.00</b>	<b>50.00</b>	<b>50.00</b>
	<b>Grand Total NDMA</b>	<b>277.47</b>	<b>121.90</b>	<b>105.75</b>



# Annexure I

## COMPOSITION OF NDMA

### Present Composition

1.	Hon'ble Prime Minister of India	Chairperson
2.	<b>Shri Kamal Kishore</b>	<b>Member (Since 16.02.2015) &amp; HoD 01.10.2021 to 19.05.2024)</b>
3.	Lt Gen (Retd) Syed Ata Hasnain, PVSM, UYSM, AVSM, SM, VSM & BAR	Member (Since 21.02.2020)
4.	Shri Rajendra Singh	Member (Since 20.02.2020)
5.	Shri Krishna Swaroop Vatsa	Member (Since 04.05.2020)

### Former Members

1.	Gen. N. C. Vij	Vice-Chairperson (28.9.2005 to 27.9.2010)
2.	Shri M. Shashidhar Reddy	Vice Chairperson (16.12.2010 to 16.06.2014) Member (11.10.2010 to 16.12.2010) Member (05.10.2005 to 04.10.2010)
3.	Lt. Gen. (Dr.) J. R. Bhardwaj	Member (28.09.2005 to 27.09.2010)
4.	Dr. Mohan Kanda	Member (05.10.2005 to 04.10.2010)
5.	Prof. N. Vinod Chandra Menon	Member (28.09.2005 to 27.09.2010)
6.	Smt. P. Jyoti Rao	Member (14.08.2006 to 13.08.2011)
7.	Shri K. M. Singh	Member (14.12.2011 to 11.07.2014) Member (28.09.2005 to 27.09.2010)
8.	Shri B. Bhattacharjee	Member (15.12.2011 to 11.07.2014) Member (21.08.2006 to 20.08.2011)
9.	Shri J. K. Sinha	Member (04.06.2012 to 11.07.2014) Member (18.04.2007 to 17.04.2012)
10.	Shri T. Nandakumar	Member (8.10.2010 to 28.2.2014)
11.	Shri V. K. Duggal	Member (22.06.2012 to 23.12.2013)

12.	Maj. Gen. J. K. Bansal	Member (6.10.2010 to 11.07.2014)
13.	Muzaffar Ahmad	Member (10.12.2010 to 03.01.2015)
14.	Dr. Harsh K. Gupta	Member (23.12.2011 to 11.07.2014)
15.	Dr. K. Saleem Ali	Member (03.03.2014 to 19.06.2014)
16.	Sh. K. N. Shrivastava	Member (03.03.2014 to 11.07.2014)
17.	Shri R. K. Jain, IAS (Retd.)	Member Secretary (23.02.2015 to 30.11.2015) Member (01.12.2015 to 30.11.2018)
18.	Lt. Gen (Retd.) N. C. Marwah, PVSM, AVSM	Member (30.12.2014 to 29.12.2019)
19.	Dr. D. N. Sharma	Member (19.01.2015 to 18.01.2020)

## Annexure II

### LIST OF SENIOR OFFICERS OF THE NDMA

#### Present Composition

1.	<b>Shri Kamal Kishore</b> , Member (Since 16.02.2015) & HoD (Since 01.10.2021 to 19.05.2024)
2.	<b>Shri Alok</b> , Additional Secretary (Since 23.01.2023 to 09.01.2024)
3.	<b>Shri Harsh Gupta</b> , Project Director, NCRMP (since 28.04.2022 to 08.01.2024)
4.	<b>Shri Kunal Satyarthi</b> , Advisor (Policy & Planning) (since 24.09.2021 to 18.03.2024)
5.	<b>Ms. Sreyasi Chaudhuri</b> , Joint Secretary (since 17.01.2020)
6.	<b>Sh. Ravinesh Kumar</b> , Financial Advisor (since 10.10.2017 to 09.10.2024)
7.	<b>Col. K. P Singh</b> , Advisor (Operations) (since 12.09.2022)





