

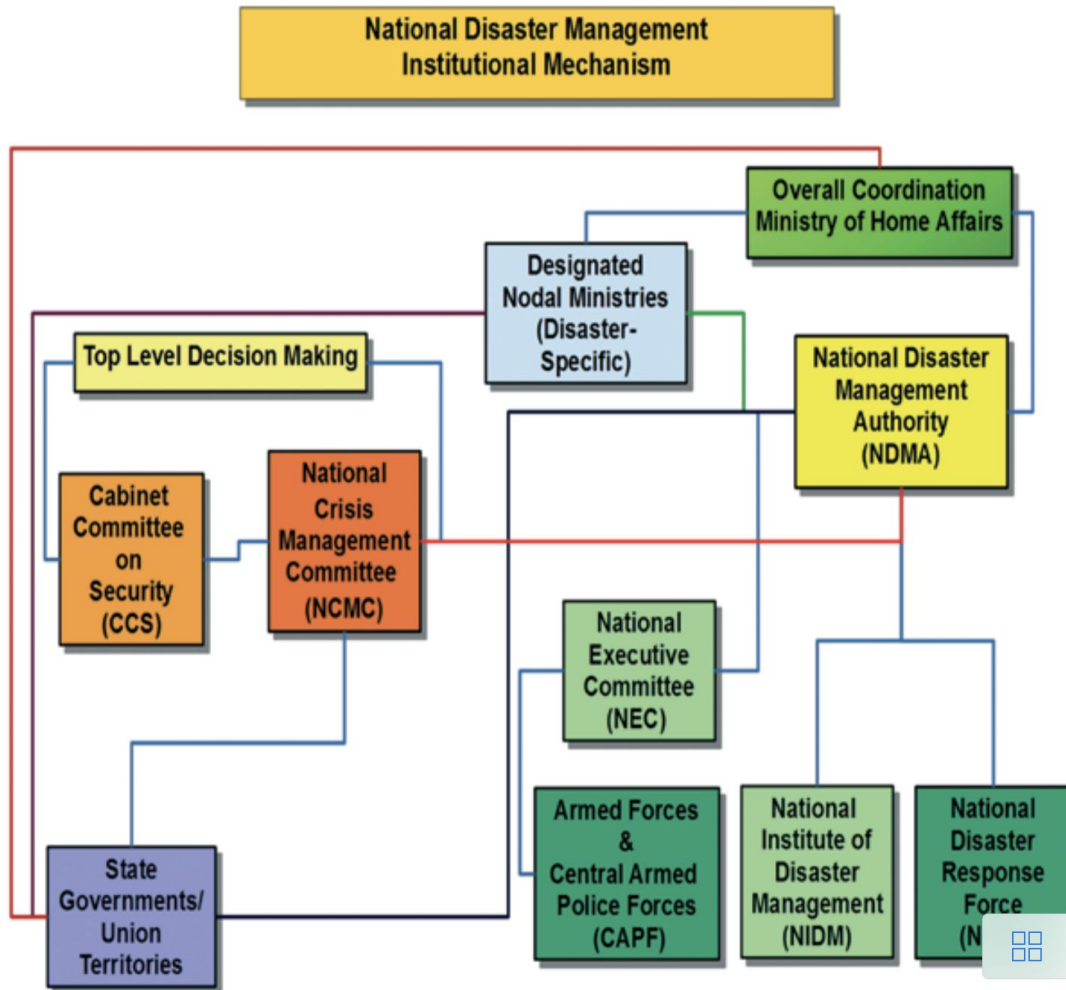
INSTITUTIONAL MAPPING



INSTITUTIONAL MAPPING

National Level





Central Government acts in a supporting role to State Government. State Government is responsible for disaster management and relief.

National Disaster Management Plan, 2016
This represents the institutional pathways for coordination, decision-making and communication for disaster management. It does not imply any chain of command.

TOP LEVEL

Decision-Making Institutions



CCS - Cabinet Committee on Security

- Composed by Prime Minister, Minister of Defence, Minister of Finance, Minister of Home Affairs, and Minister of External Affairs
- Deals with issues related to defence of the country, law and order and internal security, policy matters concerning foreign affairs that have internal or external security implications, and economic and political issues impinging on National security.

NCMC - National Crisis Management Committee

- Headed by Cabinet Secretary
- Oversees the Command, Control and Coordination of the disaster response
- Gives direction to the Crisis Management Group as deemed necessary
- Gives direction for specific actions to face crisis situations
- Handles any emergencies requiring close involvement of the security forces and/or intelligence agencies with support of Crisis Management Groups (CMG)

CCMNC - Cabinet Committee on Management of Natural Calamities

- Management of natural calamities
 - assesses of the situation
 - identifies of measures and programmes considered necessary to reduce the impact
 - monitors and suggests long-term measures for prevention
 - formulates and recommends programmes for public awareness for building up society's resilience

HLC - High Level Committee

- Composed by Finance Minister as Chairman and the Home Minister, Agriculture Minister, and Deputy Chairman of the Planning Commission as members
- Approves the Central assistance to be provided to the affected States from the National Calamity Contingency Fund (NCCF). This quantum of assistance is recommended by the Inter - Ministerial Group (IMG)

NATIONAL LEVEL

Decision-Making Institutions



NDMA - National Disaster Management Authority

- Headed by the Prime Minister (Chairperson) who nominates maximum 9 members
- Lays down policies, plans and guidelines for DM
- Coordinates their enforcement and implementation throughout the country
- Approves the NDMP and the DM plans of the respective Ministries and Departments of Government of India
- Lays down guidelines for disaster management to be followed by the different Central Ministries, Departments and the State Governments

NEC - National Executive Committee

- Mandated to assist the NDMA, headed by Union Home Secretary
- Prepares the National Disaster Management Plan incorporating DM plans prepared by the Central Ministries/Departments and State Government
- Coordinates and monitors the implementation of the National Guidelines, Policy and Plans
- Ensures compliance of the directions issued by Central Government
- Coordinates response in the event of any threatening disaster situation
- Directs and coordinates relevant Central Ministries/Departments, State Governments, Agencies and SDMAs
- Coordinates with uniformed services (Armed Forces, CAPF, NDRF, etc.)
- Coordinates with India Meteorological Department (IMD) and other agencies for early warning and monitoring systems
- Coordinates with civil defence volunteers, home guards and fire services

GSI - Geological Survey of India

- Nodal Agency under Nodal Ministry - MoM
- Maintains a liaison with the NDMA, MHA, Central and State Government
- Coordinates landslide DM programmes through the NDMA
- Reports incidents of landslides to various designated functionaries in the GoI and State Governments
- Prepares Landslide Management Plan (LMP)
- Investigates landslides in various states and union territories under its annual field season programmes
 - Coordinates studies on the processes responsible for hazards and suggests precautionary/preventive measures, monitors the disasters and develops early warning systems, etc.
 - Conducts Landslide Hazard Zonation (LHZ) mapping and other relevant studies
 - Maintains information systems eg. Disaster Management Support (DMS)

NDRF - National Disaster Response Force

- Specially trained force headed by a Director General; direction and control of this force vested in and exercised by the NDMA
- Structured like para-military forces for rapid deployment
- Provides assistance to the relevant State Government/District Administration in the event of an imminent hazard event or in its aftermath
- Plays pivotal role in specialised response to a threatening disaster situation or disaster

Ministry of Environment and Forests	Concerned with the protection of the lithosphere as a component of the environment, and is responsible for putting in place policies, strategies, and action plans to protect mountainous landscapes and the associated environment.
Ministry of Mines	The GSI specifically addresses landslides.
Ministry of Home Affairs	The nodal ministry responsible for disaster management as a whole.
Ministry of Defence	The SASE and Defence Terrain Research Laboratory deal with snow avalanches and landslides.
Ministry of Power and Energy	The National Thermal Power Corporation and National Hydroelectric Power Corporation face landslides on many of their project sites.
Ministry of Urban Development and Poverty Alleviation	Responsible for projects connected with housing and human settlement. The CPWD and BMTPC deal with construction and hazard maps in landslide prone areas.
Ministry of Surface Transport	The BRO deals with snow avalanches and landslides along roads and highways. The IRC has a committee on DM.
Ministry of Water Resources	Responsible for the development of water resources and especially responsible for landslide dam related problems.
Ministry of Railways	Landslides affecting the railway network.
Ministry of Science and Technology	The DST promotes R&D on the diverse aspects of landslides, climate change, etc. The Department of Earth Sciences and laboratories of the CSIR are also engaged in the study of diverse aspects of landslide mitigation.
Ministry of Earth Sciences	Newly constituted ministry responsible for earthquakes, landslides, rainfall, and coastal disasters.
Ministry of Culture	Responsible for the protection of archaeological monuments, cultural and natural heritage threatened by landslides.
Ministry of Tourism	Responsible for the development of tourism in ecologically fragile areas.

Roles of the Central Government Ministries and the Need for Inter-Ministerial Coordination in the context of Landslide Management and Environmental Protection, Guidelines, 2009

Remediation and mitigation practices for lifeline structures, national highways, the railway network and large civil engineering structures like major power and irrigation projects will be in direct purview of the appropriate central ministries and departments together with the involvement of local authorities.

Other National Institutions

- Central Road Research Institute (CRRI)
- Central Building Research Institute (CBRI)
- Indian Institute of Technology, Roorkee (IIT-R), and other IITS
- Wadia Institute of Himalayan Geology (WIHG)
- Department of Space (DoS), ISRO - Indian Space Research Organizations ISRO
- National Remote Sensing Centre (NRSC)
- Defence Terrain Research Laboratory (DTRL)
- Bureau of Indian Standards (BIS)
- Border Roads Organisation (BRO) is the principal agency responsible for the construction and maintenance of roads in almost all the hilly regions
- National Geotechnical Facility (NGF) - Dehradun
- Central Water Commission (CWC)
- CDMM -education institutions
- SASE - Snow and Avalanche Study Establishment

Financial Allocation

Provisions in Five-Year and Annual Plans, the central and state ministries/departments make specific allocations for landslide disaster management related activities.

10% of the Calamity Relief Fund will also be made available for the purchase of equipment for landslide preparedness and mitigation, and for rescue and relief operations.

National Disaster Management Authority has also proposed to take up a national landslide mitigation project in the Eleventh Five-Year Plan which will aim to comprehensively deal with basic issues of landslide hazard management in the country.

Additional funds will also be made available through special mitigation projects to be formulated and implemented by the state governments/SDMAs under the overall guidance and supervision of the NDMA.

Funds available with the District Planning and Development Council in landslide prone areas

NATIONAL LEVEL *Knowledge Institutions*



TAC - Technical Advisory Committee

- Chaired by the Secretary, MoM
- Serves as a think tank to nurse the landslide sector with cutting edge science and technology, fresh ideas and stimulus.
- Makes recommendations to the GoI on various aspects of the CLRSM, including its formation, location, aims and objects, funding, functioning, and autonomy.
- Provides full support to the human resource development and training functions delegated to the NIDM.
- Secretary, Ministry of Earth Sciences, Director General, GSI, Secretary, DST and Executive Director of the NIDM will be ex-officio members of both CLRSM and TAC.

NIDM - National Institute of Disaster Management

- Center of excellence in DM
- Works within the framework of broad policies and guidelines laid down by NDMA
- Responsibilities:
 - Planning and promoting training and capacity building services including strategic learning.
 - Research, documentation and development of national level information base.
 - System development and expertise promotion for effective disaster preparedness and mitigation.
 - Promoting awareness and enhancing knowledge and skills of all stakeholders.
 - Strengthening institutional mechanisms for training and capacity building of all stakeholders.
 - Networking and facilitating exchange of information, experience and expertise.
 - Organizing training of trainers, DM officials and others stakeholders

CLRSM - Centre for Landslide Research Studies and Management

- Established by the MoM as a premier geo-hazard institute with state-of-the art facilities, which would eventually grow into a national centre of excellence.
- Autonomous in its functioning, similar to that of a national laboratory of the Council of Scientific and Industrial Research with full operational freedom and an independent budget.
- Headed by an eminent landslide expert with a proven track record.
- Coordinates with NGF and Indian Geotechnical Society

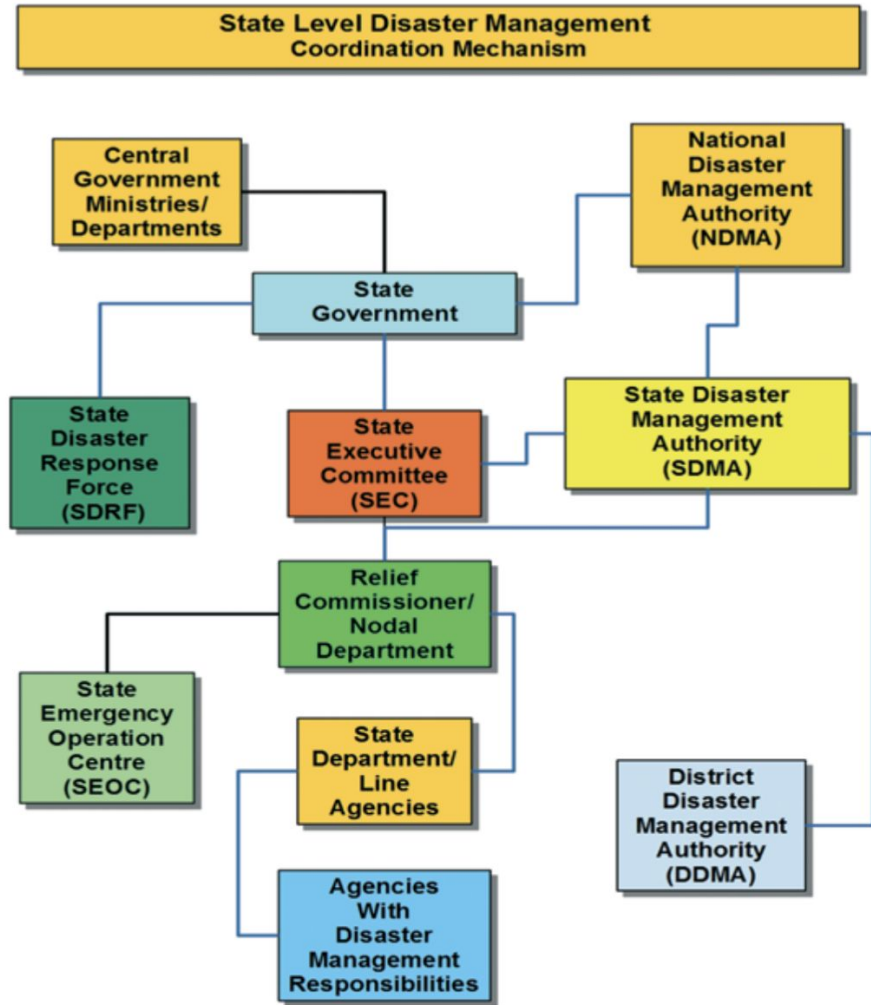
Nodal Agencies

- Geological Survey of India(GSI) in Jan 2004 - Nodal agency for Landslide Hazard Zonation (LHZ), monitoring landslide activity and its mitigation
- Department of Science and Technology - nodal agency for Geotechnical Investigations
- Ministry of Environment and Forests (MoEF)- nodal agency for Land Use Zonation and Regulations

INSTITUTIONAL MAPPING

State Level





State Government is responsible for disaster management and relief.

National Disaster Management Plan, 2016
This represents the institutional pathways for coordination, decision-making and communication for disaster management. It does not imply any chain of command.

SDMA - State Disaster Management Authority

- Sets up state DM authorities under the direct control of respective Chief Minister.
- Lays down policies and plans for DM in the state
- Approves the State Plan in accordance with the Guidelines laid down by the NDMA,
- Coordinates its implementation.
- Recommends the provision of funds for mitigation and preparedness measures
- Reviews the developmental plans of the different Departments of the State to ensure the integration of prevention, awareness, preparedness, and action measures
- Monitors any developing situation and reports to the NDMA and NEC
- Develops State capabilities to face Disasters: training and equipping of State response forces, community preparedness, training and creation of response caches at the District level

SEC - State Executive Committee

- Headed by the Chief Secretary to the State Government
- Assists the SDMA in the performance of its functions
- Coordinates and monitors the implementation of the National Policy, National Plan, and the State Plan
- Providing information to the NDMA, relating to different aspect of DM
- Overall responsibility for relief operations in the state.

INSTITUTIONAL MAPPING

District Level



DDMA - District Disaster Management Authority

- Headed by District Collector or Deputy Commissioner or District Magistrate, with elected representative of the local authority as the Co-Chairperson
- Prepares the district DM plans including the response plan
- Coordinates the implementation of the National, State, District Policies and Plans
- Ensures that the guidelines for prevention, mitigation, preparedness, and response measures laid down by the NDMA and SDMA are followed by all departments of the government at the district level and also by the local authorities in the district

Local Authorities

- Panchayat Raj Institutions (PRIs), Urban Local Bodies (ULB) such as municipal corporations, municipalities, district and cantonment boards, and town planning authorities responsible for the control and management of civic services
- Prepares DM plans in consonance with the guidelines of the NDMA, SDMA and DDMA.
- Ensures DM capacity building of their officers and employees
- Play a significant role in the entire process, particularly in response and rescue operations, relief and rehabilitation, awareness generation and disaster preparedness, restoration of livelihood options and coordination with NGOs and civil society.
 - Civil Defence, NCC, NYKS, NSS and local Non-Governmental Organisations (NGOs) will be encouraged to empower the community and generate awareness.

Local Organizations

- Creates a community contingency fund for tackling post-disaster issues
- Constitutes village level disaster management committees (locally elected representatives, government functionaries, local NGOs/community based organisations and others)
- Plans community based preparedness at district levels
 - initiating and implementing disaster preparedness plans.
 - identifying locally available assets and resources that can be utilised for building the capacities of the community for organising search, rescue and relief during and after disasters.
- GoI-UNDP Programme on Disaster Risk Management (DRM) encourages the development of district, block, taluka/tehsil, and village DM plans, which will be further strengthened, DM plans should incorporate all the features of the EOCs including their establishment and operation

INSTITUTIONAL MAPPING

Responsibility Matrix



4.9 Responsibility Matrix for Preparedness and Response

Preparedness and Response					
	Major Theme	Central/ State Ministries/ Departments and their Responsibilities			
		Centre	Responsibility – Centre	State	Responsibility – State
1	Early Warning, Maps, Satellite inputs, Information Dissemination	<p>Lead Agencies: IMD, CWC, INCOIS, SASE, GSI, BRO, MoIB, MoES, MoWR, MoAFW,</p> <p>Support Agencies: Sol, NRSC, DoT, MHA, NDMA, MoCIT, hazard-specific nodal ministries</p>	<ul style="list-style-type: none"> Issue forecasts, alerts, warnings Provide early warnings (where ever possible) to reduce loss of life and property. Disseminating warnings and information to all Central Ministries/ Departments/ Agencies and State Government Use of satellite imageries and other scientific methods for risk assessment and forecasting 	State/UT, SDMA, Revenue Dept., CoR, SEOC, DDMA, all other relevant Departments/ Agencies	<ul style="list-style-type: none"> To disseminate early warning signals to the district administration, local authorities, and the public at large in the areas likely to be affected by a disaster so as to reduce loss of life and property Dissemination of warnings and information up to the last mile Ensure appropriate compilation/ analysis of received data Use of satellite imageries and other scientific methods for risk assessment and forecasting
2	Evacuation of People and Animals	<p>Lead Agency: MHA</p> <p>Support Agencies: MoD, CAPF, MoRTH, MoR, MoCA, ministries/ depts. with hazard-specific responsibilities, NDRF, Civil Defence</p>	<p>On request, support the affected state government in evacuation of people and animals from areas likely to be affected by major disaster</p> <p><u>Special situations:</u></p> <ul style="list-style-type: none"> Evacuation of large numbers of people from far flung areas and islands (e.g., Andaman and Nicobar Islands, Lakshadweep Islands, etc. in cases of cyclone) Evacuation of visitors/pilgrims stranded in remote Himalayan regions on account of inclement weather, landslides, flash floods and avalanches Evacuation of fishermen from the high seas 	State/UT, SDMA, Revenue Dept., CoR, SEOC, FES, DDMA, all other relevant Departments/ Agencies, SDRF, Civil Defence	<ul style="list-style-type: none"> Quick assessment of evacuation needs such as the number of people and animals to be evacuated and mode of evacuation Mobilize transport and resources for evacuation Identify and prepare sites for temporary relocation of affected people and animals Identify requirements of resources for evacuation such as helicopters, aircrafts, high speed boats and ships to be provided to the affected state government Request for central resources, if needed

Understanding Disaster Risk

Landslides and Snow Avalanches				Understanding Disaster Risk	
Major Themes	Central/State Agencies and their Responsibilities				
	Centre	Responsibility – Centre	State	Responsibility – State	
4 Dissemination of warnings	CWC, NRSC, IMD, BRO	Quick, clear, effective dissemination among central and state agencies	State/UT, CoR, Revenue Dept., SDMA, PWD, DDMA, Panchayats, ULBs	<ul style="list-style-type: none"> • Ensure facilities and infrastructure for the implementation of adequate access to communities at risk • Dissemination of warnings to all, down to the last mile – remote, rural or urban; Regular updates to people in areas at risk 	
5 Monitoring, Warning Systems, and Dissemination	MoM, SASE, GSI, CWC, NRSC, IMD, BRO	Support the deployment of reliable monitoring and warning systems	State/UT, SDMA, CoR, Revenue Dept., DDMA, Panchayats, ULBs	Support and collaboration in implementation	

3.7.2 Inter-Agency Coordination

Landslides and Snow Avalanches				Inter-Agency Coordination	
Major Themes	Central/State Agencies and their Responsibilities				
	Centre	Responsibility – Centre	State	Responsibility – State	
1 Overall disaster governance	MoM, MoD	Nodal ministry – providing coordination, technical inputs, and support	SDMA, CoR, Revenue Dept., DDMA, Panchayats, ULBs	Preparation and implementation of DM plans and ensure the functioning of agencies with DM tasks	
2 Response	MHA	Nodal ministry for central assistance	SDMA, CoR, Revenue Dept., DDMA, Panchayats, ULBs	Organising the immediate response and seeking assistance of central agencies	
3 Warnings, Information, Data	GSI, SASE, IMD, MoM, BRO, NDMA	Quick, clear, effective dissemination among central and state agencies	SDMA, CoR, Revenue Dept., DDMA, Panchayats, ULBs	Dissemination of warnings to all, down to the last mile – remote, rural or urban; Regular updates to people in areas at risk	
4 Non-structural measures	MHA, BIS, MoD, BRO, NDMA	<ul style="list-style-type: none"> • Revised/ Updated rules, norms, and codes • New/Updated standards • Review and improve laws, regulations and policies 	SDMA, CoR, Revenue Dept., DDMA, Panchayats, ULBs	Adapting the norms/ codes as per State's requirement, enforcement, monitoring	

Main References

National Policy on Disaster Management, 2009, National Disaster Management Authority, Government of India

National Disaster Management Plan, 2016, National Disaster Management Authority, Government of India

National Disaster Management Guidelines, 2009, National Disaster Management Authority, Government of India