

DISASTER GOVERNANCE IN INDIA, INSTITUTIONAL MECHANISMS, AND INTER AGENCY COORDINATION

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Abstract

Most of the disaster situation is to be managed at State and District levels. The centre plays a supporting role and provides assistance when the consequences of disaster exceed district and State capacities. Active assistance to an affected State/District would be provided only after the declaration of a national level disaster, the national response mechanism has to be prepared and any impending State or District disaster has to be monitored in order to provide immediate assistance whenever required.

The Disaster Management Act, 2005 lays down institutional and coordination mechanisms for effective disaster management at the national, state, and district levels. As mandated by this Act, the Government of India created a multi-tiered institutional system consisting of the National Disaster Management Authority (NDMA), headed by the Prime Minister, the State Disaster Management Authorities (SDMA) by the Chief Ministers and the District Disaster Management Authorities (DDMA) by the District Collectors and co-chaired by elected representatives of the local authorities of the respective districts. These bodies have been set up to facilitate the paradigm shift from the hitherto relief-centric approach to a more proactive, holistic and integrated approach of strengthening disaster preparedness, mitigation and emergency response.

The research paper argues reforms to enhance legal clarity, institutional coordination, and multi-stakeholder participation, using a doctrinal approach.

Keywords: Disaster Management, Response Mechanism, Authorities, Relief-centric, Disaster Preparedness, Mitigation, Emergency response.

1. Introduction:

Disaster ‘can be defined as – a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area’.

Disaster occurs when the dimension of an emergency situation grows to such an extent that the impact of the hazard is beyond the coping capability of the local community and/or the concerned local authority. India’s geographical condition is such that it is vulnerable to a number of natural disasters. 55 per cent of the country’s total area is in Seismic Zones III-V and is vulnerable to earthquakes, 68 per cent of net sown area is vulnerable to drought, 4 crore hectare mass is vulnerable to floods, sub-Himalayan/Western Ghat is vulnerable to landslides and the coastal States are vulnerable to cyclones. Even other than natural disasters, the country is also prone to manmade disasters.

The Disaster Management Act, 2005 lays down institutional, legal, financial and coordination mechanisms at the National, State, District and Local levels. These institutions are not parallel

structures and will work in close harmony. The institutional mechanism will facilitate the predefine roles and responsibilities to the designees accountable for disaster management at various levels.

Disaster governance refers to the comprehensive policy, legal, administrative, institutional, and coordination mechanisms that enable states to prevent, prepare for, respond to, and recover from disasters. It encompasses a robust legal framework consisting of laws, rules, and guidelines; institutional support through agencies, authorities, and departments; and administrative procedures such as planning, approvals, and command systems. Effective governance also depends on strong inter-agency coordination—both vertical across national, state, and district levels, and horizontal among departments at the same level—along with meaningful community participation and the use of technology-driven early warning systems. Over the past decade, global disaster management practices have shifted from reactive and response-centric models to proactive, risk-reduction-oriented approaches, particularly after the adoption of the Sendai Framework for Disaster Risk Reduction (2015–2030), which emphasises resilience, preparedness, and integrated risk governance.

The Tenth Five Year Plan has specified the authorities in charge of disaster management. At the central level, it comprises of the Union Cabinet, headed by the Prime Minister, the Empowered Group of Ministers, headed by the Deputy Prime Minister, the National Crisis management Committee (NCCM) under the chairmanship of the Cabinet Secretary, the Crisis Management Group (CMG) under the chairmanship of the Central Relief Commissioner. Technical Organizations such as the Indian Meteorological Department (cyclone/earthquake), Central Water Commission (floods), Building and Material Promotion Council (construction laws), Bureau of Indian Standards (norms), Defense Research & Development Organization (nuclear/biological), Directorate General Civil Defense (provide specific technical support to coordination of disaster response) and the National Disaster Management Authority (NDMA).

At the State level, a state level committee headed by the Chief Secretary of State oversees the relief operations. Relief Commissioners are in charge of relief and rehabilitation

Measures, a function overseen in a number of States by the Secretary, Department of Revenue. States will also have a State Crisis Management Group (SCMG) headed by the Chief Secretary/ Relief Commissioner comprising of officers from the departments of revenue/relief, home, civil supplies, power, irrigation, water supply, panchayat (local self-government), agriculture, forests, rural development, health planning, public works and finance.

At the district level, the primary responsibility lies upon the Collector/ District Magistrate/ Deputy Commissioner. Usually there will be a district level relief committee. Panchayati Raj Institutions also play a vital role. A district is further sub-divided into sub-divisions and tehsils or talukas. The head of a sub-division, the Sub-Division Officer (SDO) and the head of a tehsil, the tehsildar (talukdar in some states), Village officer or patwari along with the Collector have a key role to play in case of threat or occurrence of any

Disaster.

A contingency plan for the district for different disasters is drawn up by the Collector / Deputy Commissioner and approved by the state government. Relief measures are reviewed by the district level relief committee. A control room is set up in district for day to day monitoring of rescue and relief operations in case of a threat or occurrence of disaster. Efforts of the district administration are supported and complemented by central government authorities present in the district which

includes army, air force, navy etc. Police and Paramilitary forces, civil defence and home-guards, fire services, ex-servicemen, nongovernment organizations (NGOs), public and private sector enterprises, media and HAM operators are also involved in disaster management.

The Disaster Management Act, 2005 also provides for constitution of a number of institutions at national, state and district levels. At the national level, the Act establishes the National Disaster Management Authority headed by the Prime Minister. The model is replicated at the State level with State Disaster Management Authorities. National Disaster Management Authority is responsible for laying down policies and guidelines on disaster management. State Disaster Management Authorities also lays down policies and plans for disaster management in their respective states. District Disaster Management Authorities are the planning, coordinating and implementing bodies for disaster management in the district. The Act also provides for a National Institute of Disaster Management for human resource development in the field of disaster management. Besides these, a National Disaster Response Force has been constituted. As part of it, ten battalions of National Disaster Response Force (NDRF) comprising 144 specialized teams trained in various types of natural, man-made and non-natural disasters have been set up. National Fire Service College at Nagpur trains personnel of State fire services/brigades in fire engineering. National Civil Defense College, Nagpur acts as one of the chief centres for disaster relief and management training. It is also a nodal centre for radiological, nuclear, biological and chemical emergency response. Depending upon the type of disaster, different ministries have been designated as the nodal ministry.

The Ministry of Home Affairs is the nodal ministry for natural disasters. Drought relief comes upon the operation of Ministry of Agriculture, Air Accidents are looked upon by Ministry of Civil Aviation while Ministry of Railways is responsible for handling railway accidents. Chemical disasters are handled by Ministry of Environment & Forests. Department of Atomic Energy is responsible for handling nuclear disasters while biological disasters come under the purview of Ministry of Health.

Effective disaster governance demands not merely emergency response but a holistic approach covering prevention, mitigation, preparedness, response, recovery, and resilience. Recognising these challenges, India enacted the Disaster Management Act, 2005, establishing a comprehensive institutional architecture. However, the success of this framework depends on the ability of institutions to coordinate effectively. Disaster governance, therefore, is as much a legal and administrative issue as it is an operational and inter-agency challenge.

2. Research Purposes

This research aims to understand and evaluate how disaster governance operates in India, focusing particularly on the effectiveness of institutional structures and inter-agency coordination. It seeks to assess how well the disaster management system performs during preparedness, response, and recovery. The key purposes of the study are as follows:

- To examine the disaster management framework established under the Disaster Management Act, 2005.
- To analyse the functioning of key institutions such as NDMA, NDRF, SDMAs, and DDMA.
- To study the effectiveness of early warning dissemination, inter-departmental communication, joint operations, and community participation.

- To recommend practical measures for strengthening institutional mechanisms and inter-agency coordination.

3. Research Questions

- How effective is the legal and policy framework—particularly the Disaster Management Act, 2005—in shaping disaster governance in India?
- What are the key institutional mechanisms established at the national, state, and district levels?
- How do stakeholders such as local government bodies, NGOs, and community organisations contribute to or affect inter-agency coordination?
- What reforms are necessary to improve institutional clarity, strengthen coordination, and enhance disaster governance efficiency in India?

4. Research methods

The present study adopts a doctrinal, descriptive, and analytical research methodology based entirely on secondary sources such as books, case laws, official reports, and policy documents. As the research examines the legal and institutional framework of disaster governance in India, the doctrinal method is used to study statutory provisions, rules, guidelines, and the Disaster Management Act, 2005 in detail. The analytical method supports the evaluation of institutional mechanisms at national, state, and district levels, along with the assessment of inter-agency coordination through interpretation of documents rather than field data. The study relies on a wide range of sources including authoritative books on disaster management and governance, Supreme Court and High Court decisions relating to state responsibility and disaster response, reports of the National Disaster Management Authority (NDMA), State Disaster Management Authorities (SDMAs), the National Institute of Disaster Management (NIDM).

5. Institutional Mechanisms for Disaster Management in India

5.1 National Level Institutions

National Disaster Management Authority (NDMA) The National Disaster Management Authority (NDMA) was initially constituted on May 30, 2005 under the Chairmanship of Prime Minister vide an executive order. Following enactment of the Disaster Management Act, 2005, the NDMA was formally constituted in accordance with Section-3(1) of the Act on 27th September, 2006 with Prime Minister as its Chairperson and nine other members, and one such member to be designated as Vice-Chairperson.

- **Mandate of NDMA:** The NDMA has been mandated with laying down policies on disaster management and guidelines which would be followed by different Ministries, Departments of the Government of India and State Government in taking measures for disaster risk reduction. It has also to laid down guidelines to be followed by the State Authorities in drawing up the State Plans and to take such measures for the management of disasters, Details of these responsibilities are given as under :-

- a. Lay down policies on disaster management;
- b. Approve the National Plan;
- c. Approve plans prepared by the Ministries or Departments of the Government of India in accordance with the National Plan;
- d. Lay down guidelines to be followed by the State Authorities in drawing up the State Plan;

- e. Lay down guidelines to be followed by the different Ministries or Departments of the Government of India for the purpose of integrating the measures for prevention of disaster or the mitigation of its effects in their development plans and projects;
- f. Coordinate the enforcement and implementation of the policy and plan for disaster management;
- g. Recommend provision of funds for the purpose of mitigation;
- h. Provide such support to other countries affected by major disasters as may be determined by the Central Government;
- i. Take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with the threatening disaster situation or disaster as it may consider necessary;
- j. Lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management.

- **Composition of NDMA:** Besides the nine members nominated by the Prime Minister, Chairperson of the Authority, the Organisational structure consists of a Secretary and five Joint Secretaries including one Financial Advisor. There are 10 posts of Joint Advisors and Directors, 14 Assistant Advisors, Under Secretaries and Assistant Financial Advisor and Duty Officer along with supporting staff.

Further, Recruitment Rules have been notified as

- a. National Disaster Management Authority, Group-‘C’ posts Recruitment Rules, 2009.
- b. National Disaster Management Authority (Group ‘A’) Recruitment Rules, 2009.

Under Section 7 (1) of DM Act an Advisory Committee with 12 Members has been constituted during 2007.

- **National Executive Committee (NEC)**

A National Executive Committee is constituted under Section 8 of DM Act, 2005 to assist the National Authority in the performance of its functions. NEC consists of Home Secretary as its Chairperson, ex-officio, with other Secretaries to the Government of India in the Ministries or Departments having administrative control of the agriculture, atomic energy, defence, drinking water supply, environment and forest, finance (expenditure), health, power, rural development science and technology, space, telecommunication, urban development, water resources. The Chief of Integrated Defence Staff of the Chiefs of Staff Committee, ex-officio, is also its Members. NEC has been given the responsibility to act as the coordinating and monitoring body for disaster management, to prepare a National Plan, monitor the implementation of National Policy etc. vide section 10 of the DM Act.

Hierarchical Structure of Authority and Committee

In this structure, National Disaster Management Authority is the authority for formulation of policy and guidelines for all disaster management work in the country. The state authorities further lay down the guidelines for departments of the state and the districts falling in their respective jurisdictions. Similarly, district authorities direct the civil administration, departments and local authorities such as the municipalities, police department and civil administration. The State Executive Committees are responsible for execution of the tasks envisaged by the authorities.

5.2 State level Institutions

- State Disaster Management Authority (SDMA)

The DM Act, 2005 provides for constitution of SDMAs and DDMA in all the states and UTs. As per the information received from the states and UTs, except Gujarat and Daman & Diu, all the rest have constituted SDMAs under the DM Act, 2005. Gujarat has constituted its SDMA under its Gujarat State Disaster Management Act, 2003. Daman & Diu have also established SDMAs prior to enactment of DM Act 2005.

- **State Executive Committee (SEC)**

The Act envisages establishment of State Executive Committee under Section 20 of the Act, to be headed by Chief Secretary of the state Government with four other Secretaries of such departments as the state Government may think fit. It has the responsibility for coordinating and monitoring the implementation of the National Policy, the National Plan and the State Plan as provided under section 22 of the Act.

5.3 District level Institutions

District Disaster Management Authority (DDMA) Section 25 of the DM Act provides for constitution of DDMA for every district of a state. The District Magistrate/ District Collector/Deputy Commissioner heads the Authority as Chairperson besides an elected representative of the local authority as Co-Chairperson except in the tribal areas where the Chief Executive Member of the District Council of Autonomous District is designated as Co-Chairperson. Further in district, where Zila Parishad exist, its Chairperson shall be the Co-Chairperson of DDMA. Other members of this authority include the CEO of the District Authority, Superintendent of Police, Chief Medical Officer of the District and other two district level officers are designated by the state Government.

The District Authority is responsible for planning, coordination and implementation of disaster management and to take such measures for disaster management as provided in the guidelines. The District Authority also has the power to examine the construction in any area in the district to enforce the safety standards and also to arrange for relief measures and respond to the disaster at the district level.

- **Institutional Framework for Metropolitan Cities**

In the larger cities (say, with population exceeding 2.5 million), the recommendation of the second Administrative Reforms Commission has suggested that the Mayor, assisted by the Commissioner of the Municipal Corporation and the Police Commissioner to be directly responsible for Crisis Management. It has now been accepted by the Government.

6. Analysis of research question

The analysis of the research questions reveals that India's disaster governance structure, though founded on a comprehensive legal framework under the Disaster Management Act, 2005, faces several practical challenges that affect its overall effectiveness. The Act has established a clear multi-tier institutional mechanism consisting of NDMA and NEC at the national level, SDMAs and State Executive Committees at the state level, and DDMA at the district level, all of which are responsible for planning, coordination, and implementation of disaster management functions. While the legal and policy framework is conceptually strong and provides detailed institutional mandates, its implementation remains uneven across the country. The statutory provisions relating to policy formulation, plan approval, coordination, standard-setting, and capacity building are well articulated, yet structural limitations such as bureaucratic delays, overlapping responsibilities among agencies, and inconsistent compliance with guidelines restrict the effectiveness of the

system. The institutions constituted at national, state, and district levels have distinct roles, but their ability to function cohesively is often constrained by weak communication channels, inadequate technical expertise, and insufficient resource mobilisation.

An examination of the institutional mechanisms shows that although NDMA leads national-level policy and planning and the NEC serves as the technical coordination body, inter-ministerial coordination is not always seamless, particularly during emergency situations that require rapid information exchange and unified command. At the state level, SDMAs are mandated to guide departments and oversee preparedness, but many of them lack regular meetings, specialised manpower, and operational autonomy. The district authorities—being the primary responders—play a crucial role in planning and field-level execution; however, many DDMAAs struggle with outdated district plans, limited capacity for enforcing safety standards, and inadequate integration with municipal bodies, police, fire services, health departments, and revenue authorities. In metropolitan cities, although the Mayor, Municipal Commissioner, and Police Commissioner have been assigned crisis management responsibilities, their coordination with state and district authorities often remains fragmented due to administrative overlaps.

The analysis of stakeholder participation indicates that disaster governance in India is still largely government-centric, with limited structured involvement of local self-governments, NGOs, community-based organisations, and trained volunteers. Local governmental bodies have the potential to play a crucial role in early warning dissemination, preparedness, evacuation, and relief activities, but their contribution is weakened by insufficient funds, lack of training, and poor institutional integration. NGOs and civil society groups are active during relief and recovery phases but seldom form part of formal decision-making or planning processes, resulting in duplication of work or fragmented efforts during crises. Community organisations, Civil Defence, Home Guards, NSS volunteers, and other trained local groups can significantly enhance resilience and local preparedness, yet their participation is often informal and not fully institutionalised.

Overall, the analysis shows that while India's disaster governance architecture is comprehensive in law, it requires substantial reforms to improve clarity of responsibilities, strengthen institutional coordination, and enhance functional efficiency. The system must move towards more coherent vertical coordination between national, state, and district authorities, as well as stronger horizontal linkages among sectoral departments such as health, police, fire services, municipal bodies, and revenue administration. Enhancing resources, improving capacity building, establishing interoperable communication networks, strengthening early warning dissemination, and institutionalising community participation are essential to making disaster governance more effective, accountable, and people-centred. The findings reaffirm the need for a more integrated, collaborative, and proactive governance approach to ensure timely and efficient disaster response in India.

7. Discussion of findings

The findings show that although India has a strong legal and institutional framework for disaster governance under the Disaster Management Act, 2005, there remains a clear gap between policy design and actual implementation. Institutions at the national, state, and district levels possess well-defined mandates, but their functioning is often weakened by bureaucratic delays, insufficient technical capacity, and uneven coordination. NDMA and NEC provide policy direction and planning support, yet face challenges in ensuring timely inter-ministerial coordination. At the state

level, many SDMAs lack adequate resources, updated plans, and regular operational engagement. District authorities, despite being frontline responders, often struggle with outdated disaster plans, poor enforcement of safety standards, and inconsistent collaboration with municipal bodies, police, fire services, and health departments.

The findings also highlight weak inter-agency coordination as a major challenge. Early warning systems have improved but still fail to reach vulnerable communities effectively in many regions. Furthermore, the role of local bodies, NGOs, community groups, and trained volunteers remains underutilised due to lack of formal integration into planning and decision-making processes. Overall, the study concludes that India's disaster governance framework is structurally sound but requires significant improvements in coordination, resource allocation, capacity building, and community participation to ensure more efficient, timely, and people-centred disaster management.

8. Conclusion

The study concludes that India has developed a comprehensive and multi-tiered disaster governance framework anchored in the Disaster Management Act, 2005, supported by national, state, and district-level institutional mechanisms such as NDMA, NEC, SDMAs, SECs, and DDMA. While these bodies have clearly defined mandates relating to planning, coordination, mitigation, preparedness, and response, their functioning is often constrained by gaps in coordination, inconsistent implementation, uneven resource availability, and limited integration of local institutions and community stakeholders. National and state authorities provide robust policy direction, yet district-level bodies—being closest to the ground—require stronger capacities, clearer protocols, and more efficient inter-agency communication. The overall analysis suggests that India's disaster governance system is structurally strong but operationally challenged, and it would benefit significantly from enhanced coordination, better resource mobilisation, strengthened communication systems, and greater community participation to ensure a more effective, timely, and people-centred disaster management framework.

9. Recommendations

Based on the analysis of India's disaster governance framework and the functioning of national, state, and district-level institutional mechanisms, the following recommendations are proposed to strengthen coordination, institutional clarity, and overall governance capacity:

9.1 Strengthen Legal and Institutional Clarity

Amend the Disaster Management Act, 2005 to explicitly define the operational roles of NDMA, NEC, SDMAs, SECs, and DDMA to remove overlaps in functions. Introduce clear protocols for coordination among national, state, and district authorities during preparedness, response, and recovery.

9.2 Enhance Inter-Agency Coordination Mechanisms

Establish permanent coordination cells at national, state, and district levels for seamless communication between agencies such as health, police, fire services, revenue, municipal bodies, NGOs, and trained volunteers. Develop joint Standard Operating Procedures (SOPs) for multi-agency responses during major disasters.

9.3 Improve Early Warning Dissemination and Communication Systems

Upgrade communication infrastructure using real-time digital platforms, satellite-based systems, and integrated alert systems for faster, multilayer warning dissemination. Ensure last-mile

connectivity in rural, tribal, and flood-prone regions through community networks, local radio, and panchayat-level messaging systems.

9.4. Capacity Building and Resource Mobilisation

Provide regular training for officials at SDMA, SEC, DDMA, district administration, police, and municipal bodies on coordination and crisis management. Strengthen financial and logistical resources available to district authorities for rapid response and relief operations.

9.5 Strengthen Community Participation

Institutionalise community-based disaster management committees at village, block, and municipal levels. Include traditional knowledge, community volunteers, NSS units, and local NGOs in preparedness and awareness programmes.

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