

Executive Summary

The world over Disaster Preparedness or Disaster Risk Reduction (DRR) is becoming the most prominent theme for Disaster Management. It is not possible to eliminate the possibility of disasters. However, with due care and proper preparation, the risks and damages from disasters can be reduced considerably. India is prone to various natural and manmade disasters. The country has faced several devastating disasters including earthquakes, tsunamis and river floods in recent years. Accordingly India was one of the pioneering countries to establish a three level disaster management institutional set up. Considerable time has elapsed since the enactment of the DM Act in 2005. Governments at the central and state level have initiated various mitigation projects. There are also several internationally aided projects for disaster risk reduction being carried out in the country. Institutional set ups at the national, state and district levels have been formed. The nodal ministries responsible for DRR work have been designated for various manmade and natural disasters. Therefore, it is the right time to assess the level of preparation in the country to manage disasters.

In this audit, we found that despite considerable progress in setting up institutions and creating funding arrangements, there are critical gaps in the preparedness level for various disasters. The system which came into effect post the DM Act 2005 is yet to achieve its desired impact. The National Disaster Management Authority which was conceived as the apex planning and supervising body, was found ineffective in its functioning in most of the core areas. It neither had information and control over the progress of work at the state level nor was it successful in implementation of various projects. Coordination between NDMA and nodal ministries for various disasters need to be improved. Roles and responsibilities amongst the apex bodies at the national level need to be clearly specified.

What did our Performance Audit reveal?

Our Performance Audit revealed that:

Legislative and Institutional Framework ❖ National Executive Committee had not met after May 2008, although the country faced many disasters since that date. This had affected the evaluation of the disaster preparedness at all levels of Government.
(Paragraph 2.5.3.6)

Planning of Disaster Preparedness ❖ The National Plan for Disaster Management had not been formulated even after six years of the enactment of the Disaster Management Act.
(Paragraph 3.1.1)

❖ There were no provisions to make the National Guidelines, issued by National Disaster Management Authority, binding on states in preparation of the state plans.
(Paragraph 3.2)

❖ There were significant deviations from the prescribed roles and practice of Ministry of Home Affairs, National Executive Committee and National Disaster Management Authority.
(Paragraph 3.4)

National Disaster Management Authority (NDMA) ❖ There was no Advisory Committee of NDMA, since June 2010.
(Paragraph 4.2)

❖ None of the major projects taken up by NDMA was completed. Due to improper planning either the projects were abandoned midway or were still incomplete after lapse of a considerable period.
(Paragraph 4.3)

❖ NDMA was not performing several functions as prescribed in the DM Act. These included recommending provision of funds for the purpose of mitigation and recommending relief in repayment of loans or for grant of fresh loans.
(Paragraph 4.4.2)

❖ NDMA had not started the work of systematic assessment of major national projects, to include structural requirements for disaster reduction.
(Paragraph 4.4.3)

❖ Several critical posts in NDMA were vacant and consultants were used for day to day working.
(Paragraph 4.6)

Resources and fund arrangements ❖ There were delays and mismanagement in respect of State Disaster Response Fund (SDRF) in states. The states were not regular in sending the details of utilisation and unspent balances under SDRF to

MHA. States did not invest the unspent balances under SDRF as per guidelines. This resulted in potential loss of interest of ₹ 477.99 crore in test checked states.

(Paragraph 5.1)

- ❖ National Disaster Response Fund was utilised for various purposes other than those stated in the GOI guidelines. 'On account' releases of ₹ 654.04 crore in case of Gujarat, Assam and Goa, from NCCF (now NDRF) were lying unspent with these States.

(Paragraph 5.2)

- ❖ National Disaster Mitigation Fund was yet to be established. Most of the states had also not established state and district level Disaster Mitigation funds.

(Paragraph 5.3)

- ❖ Due to delays by NDMA in finalizing the guidelines, National Disaster Response Reserve for maintaining inventory of items required for immediate relief after disasters was not operationalised.

(Paragraph 5.4)

Communication systems for Disaster Preparedness	❖ National Database for Emergency Management which was to be completed by August 2011, was yet to be operationalised.
	(Paragraph 6.1.1)
	❖ Investment of ₹ 23.75 crore was made in procurement and operationalisation of ALTM Digital Camera since April 2003. However, less than 10 <i>per cent</i> of the flood prone areas of the country was covered to generate close contour and detailed topographic information.
	(Paragraph 6.1.2)
	❖ Support through Synthetic Aperture Radar by acquiring aerial radar data during natural disasters could not materialize even after six years from the scheduled date of completion. The expenditure incurred so far was ₹ 28.99 crore.
	(Paragraph 6.1.3)
	❖ The satellite based Communication Network was not fully operational after more than six years of receipt of the communication equipment.
(Paragraph 6.1.4)	
❖ The Doppler Weather Radars for surveillance and monitoring of severe weather system could not fructify after spending ₹ 35.64 crore.	
(Paragraph 6.1.5)	
❖ National Disaster Communication Network and National Disaster Management Informatics System projects of NDMA were still at the planning stage after several years of conceptualization.	
(Paragraph 6.2)	

Response system for Disasters	<ul style="list-style-type: none"> ❖ Effectiveness of the National Disaster Response Force was hampered by shortage of trained manpower, absence of required training facilities, infrastructure and equipment. The preparedness on part of NDRF was not adequate in terms of important equipment being non-functional or faulty. (Paragraph 7.1.2) ❖ The Standard Operating Procedures for deployment of NDRF had not been approved as of September 2012 and NDRF was increasingly deployed for small or localised disasters. (Paragraph 7.1.3) ❖ Only seven states had raised their State Disaster Response Forces. In the absence of properly trained and equipped SDRF personnel, states were sending requisitions for NDRF deployment for small and localized disasters. (Paragraph 7.2) ❖ There was no clear policy nor guidelines for the functioning of RRCs. RRCs were ineffective and were hardly utilised in disaster response. (Paragraph 7.3) ❖ Fire and Emergencies services were not adequately staffed in various states to provide immediate and quick response in case of any disaster. (Paragraph 7.4.4) ❖ The medical preparedness was found lacking in terms of capacity and infrastructure at both 'central and state' level. (Paragraph 7.5)
Capacity Building for Disaster Preparedness	<ul style="list-style-type: none"> ❖ The schemes for ensuring seismically safer habitats by training of practicing architects and engineers failed to achieve its targets. The schemes were shelved without analyzing the reasons for its failure. (Paragraph 8.1.3.1) ❖ The scheme for extending financial assistance to the ATIs ended with huge shortfalls. (Paragraph 8.1.3.2) ❖ India Disaster Resource Network project to build up organized information system of specialist equipment and expertise for disaster response was operational only on ad-hoc basis. (Paragraph 8.1.4) ❖ Non filling up of critical posts at National Institute of Disaster Management had hampered the coverage of training programmes. (Paragraph 8.1.6.2)
Disaster Specific Issues	<p>Earthquakes:</p> <ul style="list-style-type: none"> ❖ Indian Meteorological Department did not prepare the disaster management and mitigation plans for earthquake. (Paragraph 9.1.2)

- ❖ The National Earthquake Risk Mitigation Project taken up by NDMA was still in preparatory phase after a lapse of five years of its conceptualization.

(Paragraph 9.1.6)

Floods:

- ❖ Only eight states had prepared Emergency Action Plans for 192 large dams against the targeted 4728 large dams in 29 states as of September 2011.

(Paragraph 9.2.1.2)

- ❖ There were 4728 reservoirs and barrages in the country as on September 2011. CWC provided inflow forecasts to only 28 reservoirs and barrages. Shortcomings reported in the evaluation study of scheme for flood control was not rectified by the Ministry of Water Resources.

(Paragraph 9.2.3.1)

Cyclones and Tsunami:

- ❖ Modernization project to enhance the weather forecasting capabilities was not completed. Only 47.68 *per cent* funds could be utilized till March 2012.

(Paragraph 9.3.5 & 9.3.5.1)

- ❖ Implementation of mitigation project of upgradation of observatory network and other specific projects were either badly delayed or had not even commenced.

(Paragraph 9.3.5.2, 9.3.5.3, 9.3.5.4, 9.3.5.5, 9.3.5.6 & 9.3.5.7)

Droughts:

- ❖ The activities envisaged in the national guidelines on drought management were yet to be carried out to further strengthen disaster preparedness.

(Paragraph 9.4.2)

- ❖ There were delays in providing immediate relief to states from response fund.

(Paragraph 9.4.4.1)

Forest Fires:

- ❖ There was no laid down strategy to combat forest fires including co-ordination among various concerned departments. Only five states and one UT had submitted forest fire crisis management plans and these were also pending approval at MoEF.

(Paragraph 9.5.2)

- ❖ Despite availability of real time data on occurrence of forest fire, it was not utilized for planning at national and state level.

(Paragraph 9.5.3)

- ❖ The Central Crisis Group had been constituted with lower rank officers. There was no information available on monitoring by this group.

(Paragraph 9.5.4)

- ❖ Funds under Intensification of Forest Management scheme were released without assessment of requirement. MoUs were not signed. No evaluation was done as per the scheme guidelines.

(Paragraph 9.5.5)

Chemical Disaster:

- ❖ Chemical Accident Information and Reporting System (CAIRS) was yet to generate adequate response. Updated information of chemical accidents was not available in the country.

(Paragraph 9.6.3.5)

- ❖ The Ministry did not evolve an effective system for chemicals crisis management at the state level.

(Paragraph 9.6.6)

Biological Disaster:

- ❖ The Epidemic Diseases Act, 1897 requires reviewing and updating. There was a need for bio-security and bio-safety code to be developed.

(Paragraph 9.7.2.1)

- ❖ Integrated Disease Surveillance Project did not have regular reporting of data from all states thus defeating its purpose.

(Paragraph 9.7.3)

- ❖ The lab facilities and surveillance at national entry points like airports were found lacking in facilities.

(Paragraph 9.7.3.2 & 9.7.3.5)

Nuclear and Radiological Disaster:

- ❖ A large number of consents for transport of radioactive material for safe disposal had been given. However, there was no proper mechanism to verify whether the sources had actually been disposed off.

(Paragraph 9.8.4)

- ❖ The regulatory response mechanism to trace and discover lost or orphan radioactive sources in the country was also not effective.

(Paragraph 9.8.5)

What did we recommend?

- National Executive Committee (NEC) and Ministry of Home Affairs (MHA) should ensure that a comprehensive National Plan for disaster management is developed at the earliest.
 - NDMA should follow up implementation of its National Guidelines by the ministries, departments and State Governments.
 - Regular meetings of NEC should be convened to perform its assigned role in the disaster management of the country.
 - Roles and responsibilities of MHA, NEC and NDMA should be specified for clear demarcation of functions of these stakeholders.
-
- NDMA should ensure early constitution of its Advisory Committee of experts.
 - NDMA needs to review and strengthen its project execution capacities. Better coordination is required with nodal ministries to avoid duplication of efforts.
 - NDMA should start the work of assessment of major national projects to include structural requirements for disaster reduction.
 - NDMA should make efforts for formulation of the retrofitting policy.
 - NDMA should firm up its business rules at the earliest.
- MHA should strengthen its monitoring mechanism, so that states regularly send the details of utilization and unspent balances under SDRF. It should ensure timely release of SDRF to states.
 - MHA should ensure investment of the unspent balances under SDRF by the states.
 - National Disaster Response Fund should not be utilized for repair and restoration activities.
 - Disaster Mitigation funds at national, state and district level should be created to boost mitigation activities.
 - National Disaster Response Reserve (NDRR) should be operationalised at the earliest.
- Department of Space should ensure that the National Database for Emergency Management (NDEM) is operationalized at the earliest.
 - Indian Space Research Organisation should fully operationalise the satellite based DMS Communication Network and installation of Doppler Weather Radars at the earliest.
 - NDMA should ensure completion of National Disaster Communication Network and National Disaster Management Informatics System projects.
- National Disaster Response Force (NDRF) should make concerted efforts to fill the vacant positions including specialist positions. DG, NDRF should be given better control over transfers and deployment of the NDRF personnel.

- The standard infrastructure for the NDRF battalions should be created at the earliest.
 - The Standard Operating Procedures for deployment of NDRF should be firmed up and circulated to all stakeholders.
 - States should be encouraged to raise their State Disaster Response Forces.
 - There should be a clear policy for the functioning of Regional Response Centres so that they can be effectively utilized for disaster response.
 - MHA should ensure completion of scheme for upgradation of Fire and Emergency Services.
 - Capacity and infrastructure at both central and state level should be strengthened for medical response.
- The academic and training programmes of National Institute of Disaster Management need to be evaluated for providing an assurance that stated objectives and value for money had been achieved.
 - The implementation of India Disaster Resource Network needs to be firmed up. The inventory data of resources needs to be updated.
 - Expeditious steps are required to fill the critical vacant posts in NIDM so that adequate training programmes are conducted.
- The Ministry of Earth Sciences (MoES) should prepare the Earthquake Management Plan in consonance with National Guidelines issued in this regard.
 - NDMA should complete its project on 'Vulnerability Assessment and Risk Analysis' with respect to various natural hazards.
 - Ministry of Water Resources should ensure preparation of Emergency Action Plans of the states covering all the major dams.
 - There is a need to ensure timely completion of various projects undertaken by Ministry of Earth Sciences for modernization of India Meteorological Department.
 - Department of Agriculture & Cooperation should see to it that the activities envisaged in the National Guidelines on Drought Management are completed expeditiously to provide impetus for disaster preparedness for mitigation of droughts.
 - Submission of monthly drought reports should be ensured by all stakeholders so that the project activities of the National Agricultural Drought Assessment and Monitoring System could be reviewed periodically.
 - This forest fire monitoring data could be utilized in preparation of the Contingency Plan for Forest Fires.
 - An effective system for chemical crisis management at the state level and to provide a link between the accident sites and expert group was required to be devised.

- **The Chemical Accident Information & Reporting System needs to update information of chemical accidents expeditiously.**
- **The central crisis group needs to play its role in monitoring the post-accident situation and suggesting measures for prevention and recurrence of forest fires.**
- **The deficiencies reported in Integrated Disease Surveillance Project need to be rectified. Surveillance at national entry points and laboratory infrastructure in the country need to be strengthened.**



