

## DISASTER MANAGEMENT IN IN LEH TOWN, J&K

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### ABSTRACT

India is one of the most disaster prone countries of the world. It has had some of the world's most severe droughts, famines, cyclones, earthquakes, chemical disasters, mid-air head-on air collisions, rail accidents, and road accidents. India is also one of the most terrorist prone countries.

India was, until recently, reactive and only responded to disasters and provided relief from calamity. It was a relief driven disaster management system. India also has world's oldest famine relief codes. In recent times, there has been a paradigm shift and India has become or is becoming more proactive with emphasis on disaster prevention, mitigation and preparedness.

Some of the catastrophic disasters in recent times have led to changes in disaster policy and creation of new organizations. Policy changes include the enactment of Disaster Management Act, 2005 and development of the national disaster management response framework. The National Disaster Management Authority was established to spearhead in creation of culture of disaster resilience. The National Institute of Disaster Management itself and along with Disaster Management Cells in the states is providing training opportunities in disaster management.

### INTRODUCTION

#### 1.1 Disaster Policy

Indian disaster policy is geared to make a paradigm change from response and calamity relief to disaster prevention, preparation and mitigation. Another significant change is to move from disaster management largely from government to public private partnership, and community disaster management.

Disaster management has emerged as a high priority for the country. The Eleventh Five Year Plan aims at consolidating the process by giving impetus to projects and programs that develop and nurture the culture of safety and the integration of disaster prevention and mitigation into the development process. The guidance and direction to achieve this paradigm shift will need to flow from **National Disaster Management Authority (NDMA)**, and in the true spirit of the **Disaster Management Act, 2005** to all stakeholders including State Governments and Union Territories, right up to the Panchayat Raj (local administration by five locally elected citizens) Institutions. Communities at large will need to be mobilized to achieve this common objective as they

are the first responders (and not the usually thought fire, ambulance, and police). Even the best of isolated efforts will not bear fruit unless they are part of an overall, well-considered approach, and responsibilities of all stakeholders are clearly spelt out and accountability and sustainability factored in.

On December 23, 2005 the Disaster Management Act, 2005 was enacted by the Government of India. The Disaster Management Act, 2005 mandated creation of National Disaster Management Authority, with Prime Minister as the Chairman, and State Disaster Management Authorities headed by the respective Chief Ministers, to spearhead and implement a holistic and integrated approach to disaster management in India. The act also provided for creation of National Institution of Disaster Management.

NDMA has come out with the national vision statement of:

*“To build a safer and disaster resilient India by developing a holistic, pro-active, multi-disaster and technology-driven strategy for disaster management through collective efforts of all Government Agencies and Non-Governmental Organisations”*

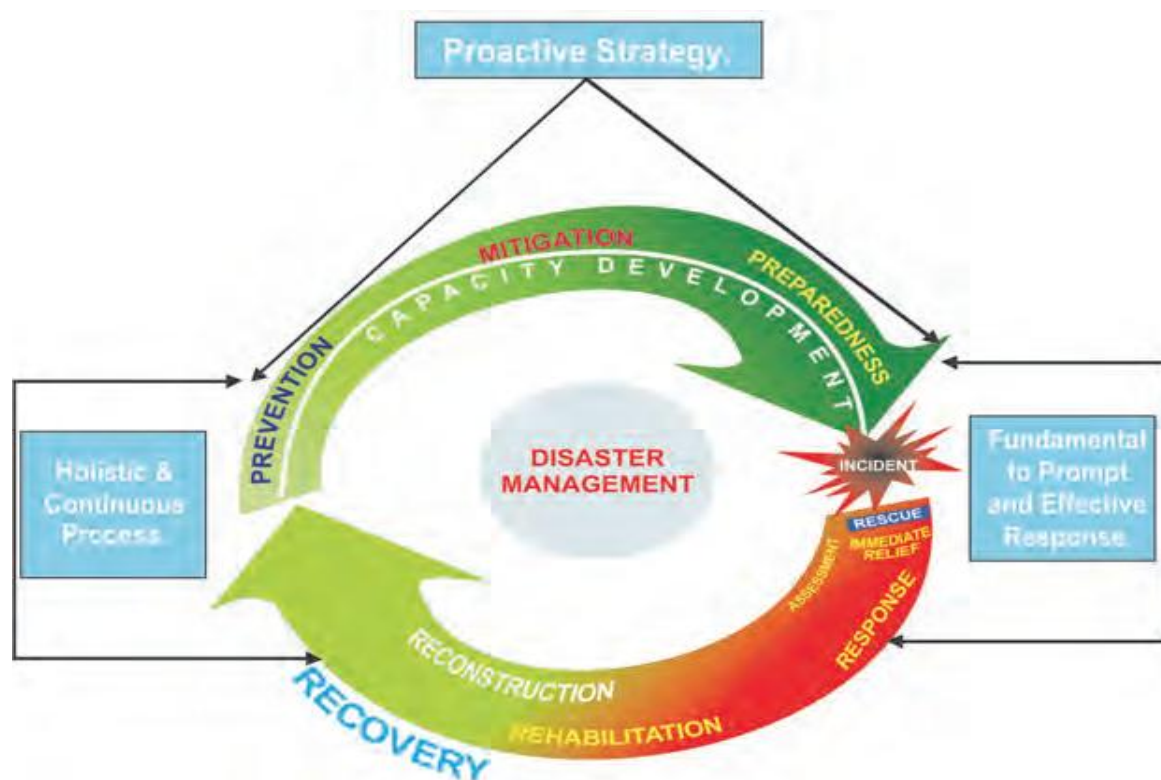
## **1.2 Disaster Risks in Leh**

Leh is vulnerable, in varying degrees, to a large number of natural as well as man-made disasters. It is prone to earthquakes of moderate to very high intensity; It is prone to floods and river erosion; the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches. Vulnerability to disasters/emergencies of Chemical, Biological, Radiological and Nuclear (CBRN) origin also exists.

A disaster refers to a catastrophe, mishap, calamity or grave occurrence from natural or man-made causes, which is beyond the coping capacity of the affected community. DM involves a continuous and integrated process of planning, organising, coordinating and implementing measures which are necessary or expedient for:

- Prevention of danger or threat of any disaster.
- Mitigation or reduction of risk of any disaster or its severity or consequences.
- Capacity building including research and knowledge management.
- Preparedness to deal with any disaster.
- Prompt response to any threatening disaster situation or disaster.
- Assessing the severity or magnitude of effects of any disaster.
- Evacuation, rescue and relief.
- Rehabilitation and reconstruction.
- A typical DM continuum comprises six elements; the pre-disaster phase includes prevention, mitigation and preparedness, while the post-disaster phase includes response, rehabilitation, reconstruction and recovery.

## **1.3 Approach**



A **holistic** and **integrated** approach will be evolved toward disaster management. The themes underpinning the program are:

- Community based DM
- Capacity development in all spheres.
- Consolidation of past initiatives and best practices.
- Multi-sectoral synergy.

#### 1.4 Objectives

The objectives of the disaster management program are:

- Promoting a culture of prevention, preparedness and resilience at all levels through knowledge, innovation and education.
- Encouraging mitigation measures based on technology, traditional wisdom and environmental sustainability.
- Mainstreaming disaster management into the developmental planning process.
- Establishing institutional and techno-legal frameworks to create an enabling regulatory environment and a compliance regime.
- Identification, assessment and monitoring of disaster risks.

- Developing contemporary forecasting and early warning systems backed by responsive and failsafe communication with information technology support.
- Ensuring efficient response and relief with a caring approach towards the needs of the vulnerable sections of the society.
- Undertaking reconstruction as an opportunity to build disaster resilient structures and habitat for ensuring safer living.

## **II.RECOMMENDATIONS FOR PREVENTION OF DISASTERS**

### **2.1Local Authorities**

At the district level, District Disaster Management Authorities (DDMAs), will act as the district planning, coordinating and implementing body for disaster management

### **2.2Financial Arrangements**

#### **2.1.1Approach**

Efforts would be made to mainstream prevention and mitigation measures into the developmental plans and programmes by enlisting cooperation from all stakeholders.

Techno-Financial Regime

Some financial practices such as disaster risk insurance, micro-finance and micro-insurance, warranty of newly constructed houses and structures and linking safe construction with home loans will be considered for adoption.

### **2.2Risk Assessment and Vulnerability Mapping**

Hazard zonation, mapping and vulnerability analysis in a multi-hazard framework will be carried out utilising Geographic Information System (GIS) based databases

- Urban mapping of infrastructure of spatial resolution will be taken up for development of Decision Support System (DSS) for management of urban risks
- For search and rescue efforts in the urban areas also require specialized training
- Action plans for checking unplanned urbanization and ensuring safer human habitat against all forms of disasters will be recognized as priority areas

### **2.3Critical Infrastructure**

Critical infrastructure like dams, roads, bridges, flyovers, railway lines, power stations, water storage tanks, irrigation canals, delta water distributor network, river and coastal embankments other civic utilities are constantly monitored for safety standards in consonance with worldwide safety benchmarks and strengthened where deficient. The building standards for these infrastructures need to be aligned to the safety norms and concerned Departments/Authorities would ensure the requisite actions and measures to ensure this.

## **2.4 Climate Change Adaptation**

Climate change is impacting on our glacial reserves, water balance, agriculture, forestry, coastal ecology, biodiversity and human and animal health. There are definite indications that climate change would increase the frequency and intensity of natural disasters like cyclone, flood and drought in the coming years. In order to meet these challenges in a sustained and effective manner, synergies in our approach and strategies for climate change adaptation and disaster risk reduction shall be encouraged and promoted.

## **2.5 Preparedness**

The plans prepared will incorporate the inputs of all stakeholders for integration into the planning process. The participation of all stakeholders, communities and institutions will inculcate a culture of preparedness. A bottom-up approach needs to be adopted for better understanding and operationalisation of these plans.

## **III. FORECASTING AND EARLY WARNING SYSTEMS**

It is most essential to establish, upgrade and modernise the forecasting and early-warning systems for all types of disasters. India Meteorological Department will provide the required infrastructure for upgradation/establishment of meteorological observation systems. Partnership with the World Meteorological Organisation (WMO), other regional and global institutions may also be considered. ICT tools need to be used for data receptions, forecasting and timely dissemination.

### **3.1 Communications and Information Technology (IT) Support**

The basic communications and IT support requirements for disaster management correspond to the following three levels:

- Decision makers and disaster managers at all levels.
- Real time dissemination of advance warnings and information to the concerned authorities at various levels and threatened community. For dissemination of advance warning and information through broadcasting mediums such as television and radio shall be used significantly as it has higher geographical reach. For hilly regions, network of meteorological department may be used.
- Last mile connectivity at the disaster site for control and conduct of rescue and relief operations.

Communication and sharing of upto-date information using state-of the art IT infrastructure remain at the heart of effective implementation of the disaster management strategy. Reliable, up-to-date and faster sharing of geo-spatial information acquired from the field or the affected areas is a pre-requisite for effective implementation of disaster management strategies. Efforts should be made for setting up IT infrastructures consisting of required IT processes, architecture and skills for quick up-gradation and updation of data sets from the Panchayati Raj Institutions or the Urban Local Bodies.

### **3.2 Strengthening of the Emergency Operations Centres**

The establishment of Emergency Operations Centres at the district and block level and equipping them with the contemporary technologies and communication facilities and their periodic upgradation, will be accorded priority. For the last mile connectivity and control of the operations at the disaster hit areas, availability of portable platforms will be catered for. The integration of Ham radios and such other innovative facilities, into the DM communication system, will be advantageous.

#### **IV.MEDICAL PREPAREDNESS AND MASS CASUALTY MANAGEMENT**

Medical preparedness is a crucial component for any DM Plan. DM plans for hospitals will include developing and training of medical teams and paramedics, capacity building, trauma and psycho-social care, mass casualty management and triage. The surge and casualty handling capacity of all hospitals, at the time of disasters, will be worked out and recorded through a consultative process, by all the states/UTs in the pre-disaster phase. The District authorities will be encouraged to formulate appropriate procedures for treatment of casualties by the private hospitals during the disasters. These plans will also address post-disaster disease surveillance systems, networking with hospitals, referral institutions and accessing services and facilities such as availability of ambulances and blood banks.

Creation of mobile surgical teams, mobile hospitals and heli-ambulances for evacuation of patients is a crucial component of DM efforts. The creation of additional bio-safety laboratories of level IV will be addressed by the nodal ministry. There is a need to focus on creating adequate mortuary facilities. Proper and speedy disposal of the dead bodies and animal carcasses deserves due weightage.

##### **4.1 Training, Simulation and Mock Drills**

Efficacy of plans and Standard Operating Procedures (SOPs) will be tested and refined through training, seminars and mock drills. District authorities will generate a culture of preparedness and quick response.

##### **4.2 Community Based Disaster Preparedness**

During any disaster, communities are always not only the first to be affected but also the first responders. Community participation ensures local ownership, addresses local needs, and promotes volunteerism and mutual help to prevent and minimise damage.

The needs of the elderly, women, children and differently abled persons require special attention. Women and youth will be encouraged to participate in decision making committees and action groups for management of disasters. As first responders to any disaster, communities will be trained in the various aspects of response such as first-aid, search and rescue, management of community shelters, psycho-social counselling, distribution of relief and accessing support from government/agencies etc. Community plans will be dovetailed into the panchayat, block and district plans.

#### **4.3 Stakeholders' Participation**

The participation of civil society stakeholders will be coordinated by the DDMA's. Civil Defence, NCC, NYKS, NSS and local NGOs will be encouraged to empower the community and generate awareness through their respective institutional mechanisms. Efforts to promote voluntary involvement will be actively encouraged.

#### **4.4 Public Private Partnership (PPP)**

Public Private Partnership between the Government and private sector would also be encouraged to leverage the strengths of the latter in disaster management.

#### **4.5 Revision of Municipal Regulations**

In view of the construction boom and rapid urbanisation, municipal regulations such as development control regulations, building bye-laws and structural safety features need to be revisited. These regulations will be reviewed periodically to identify safety gaps from seismic, flood, landslide and other disasters and suitable modifications will be made to align them to revised building codes of the Bureau of Indian Standards (BIS). Undesirable practices compromising safety during disasters, that tend to crop up from time to time, will need to be addressed in the regulations. The utilisation of unsuitable areas for construction, without necessary safeguards further enhances vulnerability and needs to be guarded against through appropriate compliance mechanisms.

### **V. SAFE CONSTRUCTION PRACTICES**

Hazards like earthquakes and cyclones do not kill people but inadequately designed and badly constructed buildings do. Ensuring safe construction of new buildings and retrofitting of selected lifeline buildings, as given in the Earthquake Guidelines, is a critical step to be taken towards earthquake mitigation.

Training of engineers, architects, small builders, construction managers and artisans shall be given. Enabling provision shall be made in all the Govt. Sponsored Schemes and design the school buildings/hostels, hospitals (with large capacity) and national monuments besides other critical lifeline buildings with earthquake resilient features and to equip them with appropriate fire safety measures.

### **VI. RESPONSE**

Prompt and effective response minimises loss of life and property. A caring approach for the special needs of vulnerable sections is also important. The existing and the new institutional arrangements need to ensure an integrated, synergised and proactive approach in dealing with any disaster. This is possible through

contemporary forecasting and early warning systems, fail-safe communication and anticipatory deployment of the specialised response forces. A well informed and prepared community can mitigate the impact of disasters.

#### **VII.ROLE OF DISTRICT AND LOCAL AUTHORITIES**

District level preparations will provide the cutting edge to all response activities. Local authorities, Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs) will play a significant role in the entire process, particularly in response and rescue operation, relief and rehabilitation, awareness generation and disaster preparedness, restoration of livelihood options and coordination with Non-Governmental Organisations and civil society.

#### **VIII.LEVELS OF DISASTERS**

The Standard Operating Procedures (SOPs) for determining the levels of disasters and for issuing alerts to electronic messaging systems to various agencies about disasters shall be formulated. These SOPs will be reviewed periodically for disaster response management in case of natural and manmade disasters.

#### **IX.FIRST AND OTHER KEY RESPONDERS**

The role and importance of community, under the leadership of the local authorities, Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs), being the bedrock of the process of disaster response, will be well recognised. For their immediate support, there are other important first responders like the police, State Disaster Response Force (SDRFs), Fire and Medical Services.

#### **X.MEDICAL RESPONSE**

Medical response has to be quick and effective. The execution of medical response plans and deployment of medical resources warrant special attention at the District level in most of the situations. The voluntary deployment of the nearest medical resources to the disaster site, irrespective of the administrative boundaries, will be emphasised.

#### **XI.ANIMAL CARE**

Animals both domestic as well as wild are exposed to the effects of natural and man-made disasters. It is necessary to devise appropriate measures to protect animals and find means to shelter and feed them during disasters and their aftermath, through a community effort, to the extent possible.

#### **XII.INFORMATION AND MEDIA PARTNERSHIP**



During disaster situations, the dissemination of accurate information through electronic and print media is very important. Training in information management and accurate reporting will be undertaken at all levels.

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