DISASTER MANAGEMENT IN INDIA

NATURAL AND HUMAN INDUCED DISASTERS & THEIR LONG TERM EFFECTS

N. VINOD CHANDRA MENON

Founder Member

National Disaster Management Authority (NDMA)

Government of India

Urban Disaster Risk in India

- Earthquake
- Urban Flooding
- Cyclone in Coastal Cities
- Tsunami in Coastal Cities
- Epidemics: Dengue, Chikunguniya, Malaria
- Chemical and Industrial Disasters
- Man made Disasters: Terrorism, Insurgency

Orissa Super Cyclone, 1999

The Indian Ocean Tsunami of 26th December 2004

- The watershed event globally triggering radical institutional reform in several countries
- Became the driving force in launching the Hyogo Framework for Action (2005-2015) endorsed by 168 countries
- In India, the Disaster Management Act 2005 was unanimously passed by both houses of Parliament.

Mumbai Floods, July 2005
SAHARA
The King of
radio is here.
WORLDSPACE

Blocks Noise
Boosts Voice
Logitech™ Mobile
Freedom™ Headset
WindStop™ Technology
7 Hours Talk Time
2 Years Warranty
Logitech
8 pm
SOGO

AHMEDABAD
SHIMNIT
56311111
Keyboards and Mice
Comfortably
Cordless
Logitech
Subras

MH-01-X-6770-C-2000

EICHER
NEETA

Time to buy a new home ?

Highlights of the DM Act 2005

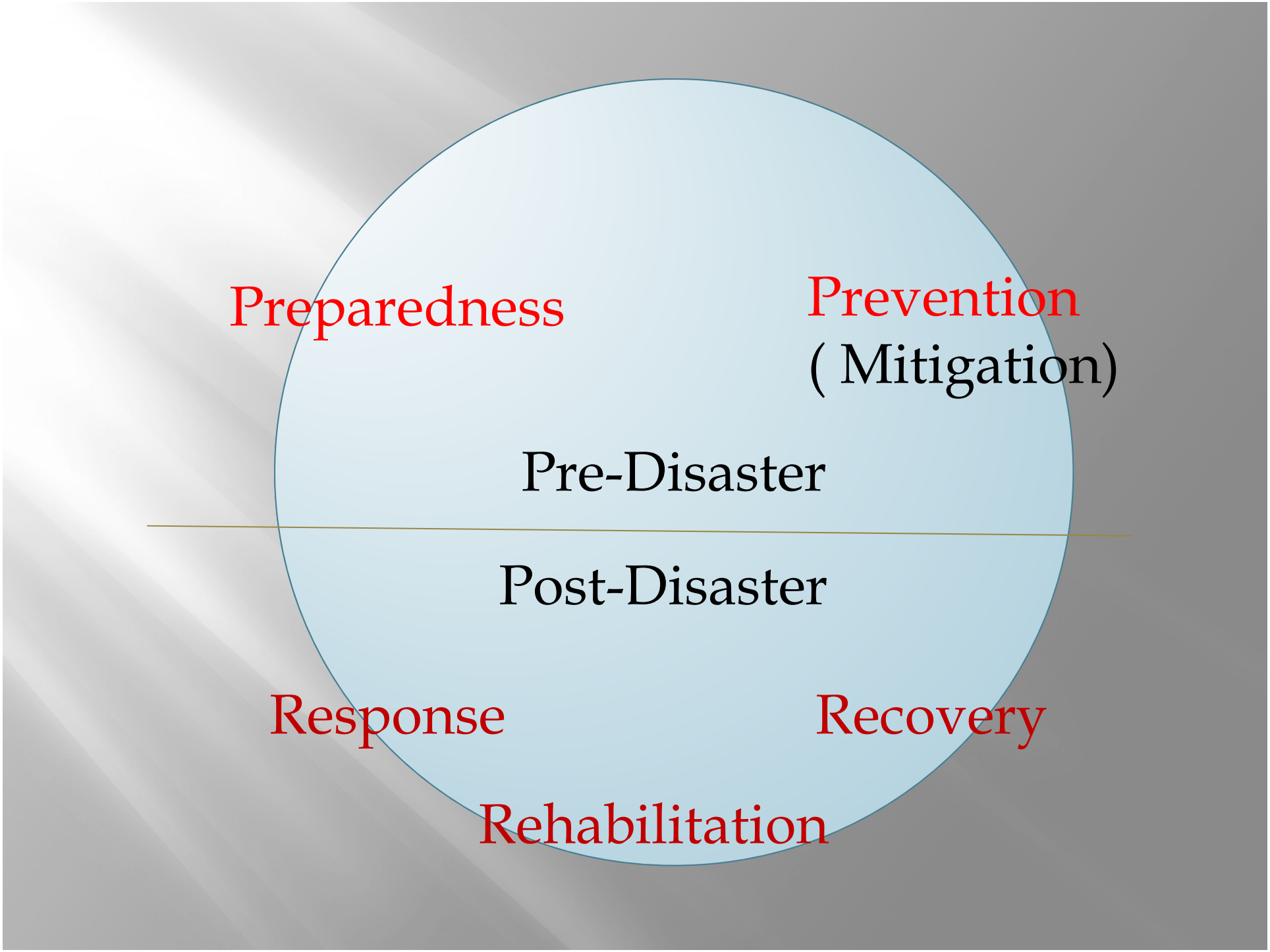
- The National Disaster management Authority (NDMA) headed by the Prime Minister of India, with a Vice Chairman and eight Members
- The State Disaster Management Authorities (SDMAs) headed by the respective Chief Ministers/Lt. Governors
- The District Disaster Management Authorities (DDMAs) chaired by the District Collector and co-chaired by the elected representative of the district .

Highlights of the DM Act 2005

- The National Disaster Response Force (NDRF) established as a dedicated response force from the paramilitary forces.
- The National Institute for Disaster Management (NIDM) established as an apex training institute in the country.
- Disaster Response Funds established at the National, State and District Levels.

Highlights of the DM Act 2005

- The National Executive Committee (NEC) and the State Executive Committees (SECs) were also established at the national and state levels.
- The roles and mandates of all these institutions were also spelt out in the DM Act 2005.


Preparedness
Prevention
(Mitigation)
Pre-Disaster
Post-Disaster
Response
Recovery
Rehabilitation

Mandate and Strategy

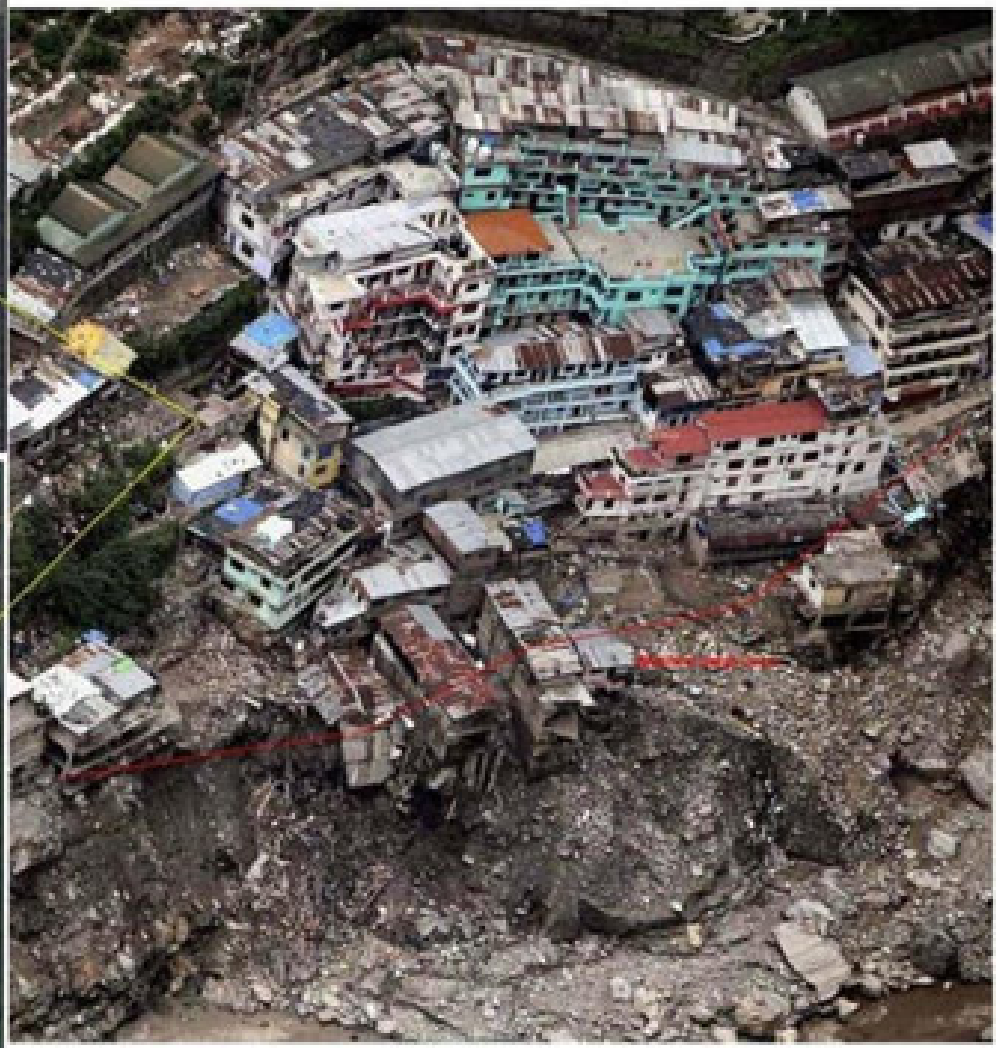
- **VISION : "To build a safe and disaster resilient India by developing a holistic, proactive, multi-disaster and technology-driven strategy through a culture of prevention, mitigation, and preparedness and efficient response."**
- **STRATEGY : A multi-dimensional Strategy, focusing on –**

- **Pre-disaster Phase :**
  1. **Prevention.**
  2. **Mitigation.**
  3. **Preparedness.**
  4. **Capacity Building (NDRF, SDRF, CD, NCC, NYKS etc).**
  5. **Community based Disaster Management (including Public Awareness).**
- **Post-disaster Phase :**
  6. **Prompt and Efficient Response – Proactive.**
  7. **Reconstruction and Recovery (Building back better).**

MERCURY

BEFORE
AFTER

Pre and Post Satellite Image of Kedarnath Valley (Gauri Kund)



Uttarakhand Space Application Centre, Dehradu

REACHING OUT IN TIME OF DISTRESS

NDRF HAS RESCUED **51,614** PEOPLE THIS YEAR, LARGEST SINCE ITS INCEPTION IN 2006

In the recent urban floods of Chennai, NDRF's 50 search and rescue teams evacuated 22,450 people

In all, NDRF conducted **168 rescue operations** all over the country, in which 234 teams were deployed, 322 bodies were found, 132 heads of livestock recovered

NDRF has conducted **163 mock exercises** with various states/ UTs in which over 1,02,460 persons have benefitted

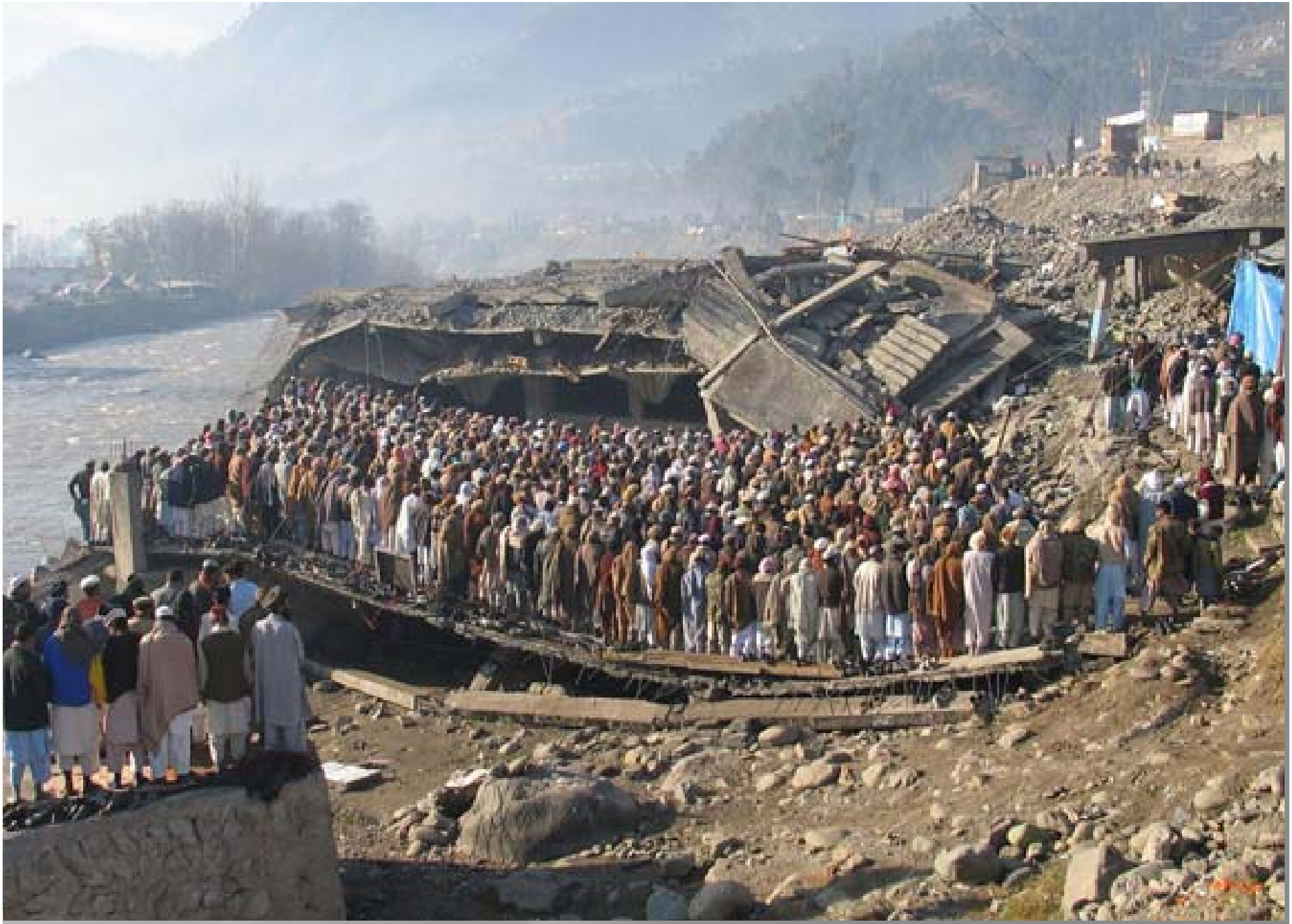
In 2015-16, NDRF has procured 21 high-end gadgets for use during rescue operations, while some 21 new gadgets under consideration at a cost of ₹ 58 crore

VULNERABLE INDIA

- According to Global Assessment Report of 2015, 4.8 million people are hit by disasters in India and it can go up to 19 million soon
- India is the third country affected by disasters after US and China
- About $9.8 billion was spent by India in disasters, out of which $7 billion was spent on floods alone

VLORA
GUARES

Where communities were given support to lead the response, they were able to contain Ebola.
#EbolaLessons
INTERNATIONAL RESCUE COMMITTEE



CHINA
救援
CHINA

DISASTER MANAGEMENT

- Support to the citizens, RWAs, etc. through information dissemination and early warning about earthquake, drought, floods and extreme events
- Formulate appropriate enabling policies to ensure the protection of critical infrastructure like schools, hospitals, flyovers, metros, and protect the unorganised sector and Micro, Small and Medium Enterprisess]
- Prepare comprehensive disaster management plans which address multi-hazard disaster preparedness, risk reduction (mitigation), emergency response and recovery strategies

CLIMATE CHANGE

- Develop policies to protect urban households from the adverse impact of climate change-induced extreme events, floods, storm surges, landslides and drought
- Evolve appropriate institutional mechanisms to improve the coordination for dissemination of alert and early warning messages to minimise loss of lives and disruption of livelihoods
- Formulate integrated policies to address the climate change impact on forestry, agriculture, animal husbandry, horticulture, floriculture and fisheries

Challenges and Concerns

- Conflicting priorities of political executives
- Short life span of civic engagement with disaster management only during disasters
- Disaster management yet to evolve as a priority for Corporate Social Responsibility
- Absence of a single window facilitation mechanism for engaging with all stake-holders
- Need for more proactive compulsions for ensuring accountability of agencies mandated with disaster management
- Zero Tolerance for avoidable deaths in disasters

PRIORITIES FOR ACTION

- Need for preparation of a comprehensive disaster management policy for Municipalities and Development Authorities to protect incomes and livelihoods of urban households from extreme events, natural disasters and climate change
- Need for formulation of Multi-Hazard Disaster Management Plans for ULBs at the National and Regional levels
- Need for conducting studies on the adverse economic impact of extreme events, natural disasters and climate change on incomes and livelihoods of poor urban households
- Develop baselines of current risk, vulnerability and exposure to multiple hazards and prepare risk reduction and mitigation plans and strengthen emergency response architecture