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FACULTY OF ENGINEERING AND  
TECHNOLOGY

## Lecture-39

# Disaster management-part 1



**Dr. Swati Sachdev,  
Assistant Professor,  
Dept. of Applied Sciences and Humanities**

**Subject : Environmental Studies and Disaster Management**

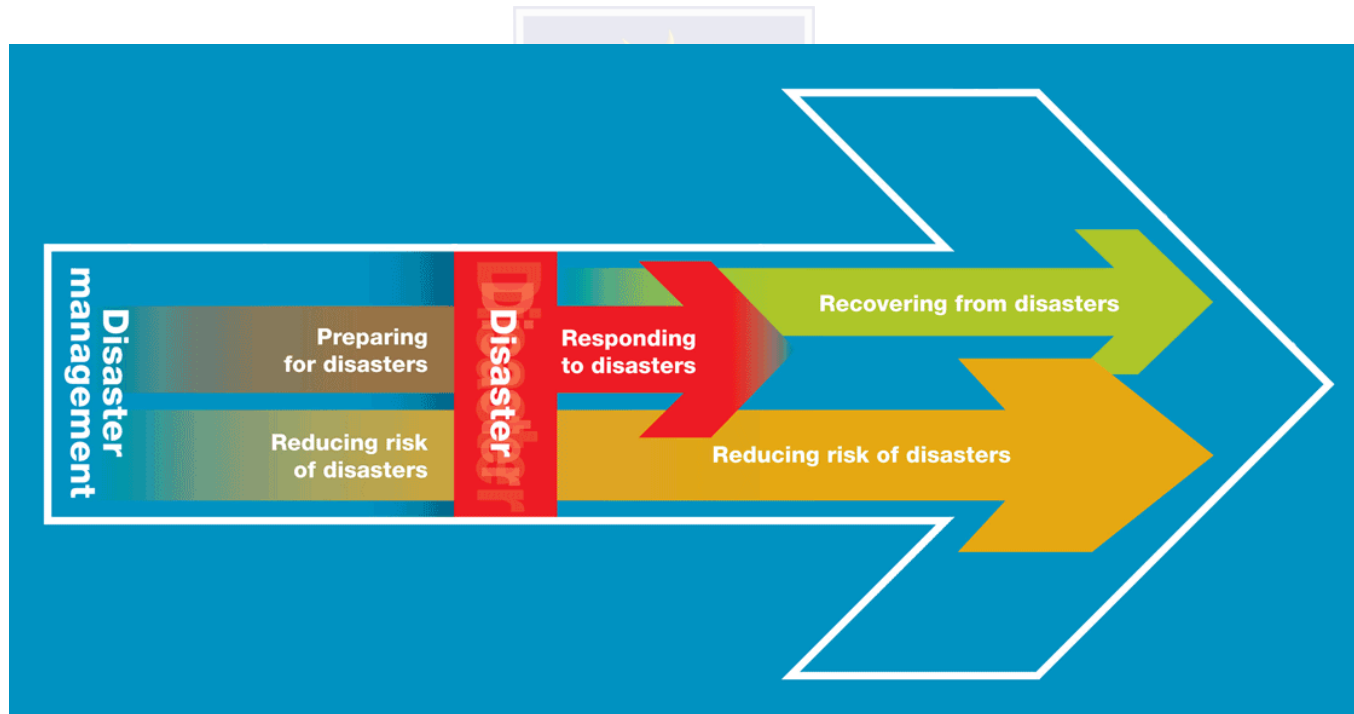
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# Disaster management-Concept

- **Disaster Management** can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters.

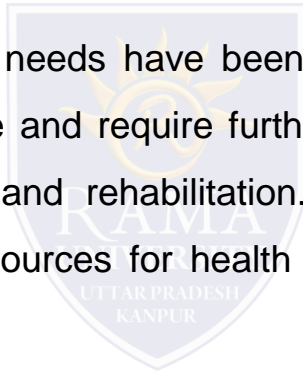


# Efforts to mitigate natural disaster at national and global level

## Mitigation of effects of natural disaster include following methods:

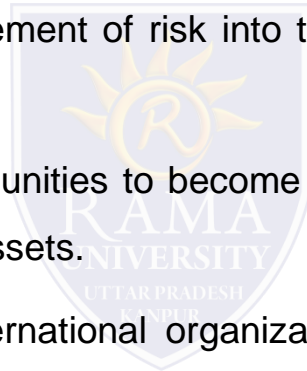
- **Disaster prevention:** These are activities designed to provide protection from disasters. Natural disasters, cannot be prevented, but the risk of loss of life and injury can be mitigated with early warning systems, good evacuation plans, environmental planning and design standards. In January 2005, 168 Governments adopted a 10-year global plan for natural disaster risk reduction called the Hyogo Framework. It offers guiding principles, priorities for action, and practical means for achieving disaster resilience for vulnerable communities.
- **Disaster preparedness:** These activities are designed to minimize loss of life and damage – for example by removing people and property from a threatened location and by facilitating timely and effective rescue, relief and rehabilitation. Preparedness is the main way of reducing the impact of disasters. Community-based preparedness and management should be a high priority in physical therapy practice management.

- **Disaster relief:** This is a coordinated multi-agency response to reduce the impact of a disaster and its long-term results. Relief activities include rescue, relocation, providing food and water, preventing disease and disability, repairing vital services such as telecommunications and transport, providing temporary shelter and emergency health care.
- **Disaster recovery:** Once emergency needs have been fulfilled and the initial crisis is over, the people affected, still remain vulnerable and require further assistance. Recovery activities include rebuilding infrastructure, health care and rehabilitation. These should blend with development activities, such as building human resources for health and developing policies and practices to avoid similar situations in future.



# International strategy for disaster reduction

- The International Strategy for Disaster Reduction (ISDR) is a global framework established within the United Nations for the promotion of action to reduce social vulnerability and risks of natural hazards and environmental disasters.
- Its main purpose is to facilitate, in an inter-agency effort Governments and communities in disaster-prone areas in integrating the management of risk into their development policies, programmes and projects.
- The long-term goal is to enable communities to become resilient to disasters saving lives as well as social, economic, and environmental assets.
- By working through a network of international organizations, scientific and expert institutions, civil society, private sector interests and government officials, the ISDR aims to increase public awareness about disaster reduction, to motivate commitment from public authorities, and to stimulate inter-disciplinary and inter-sectoral partnerships that can improve the scientific knowledge on natural hazards and the causes of disasters.



# National disaster management framework

- The Indian Subcontinent is among the world's most disaster prone area.
- Disaster management in India has been evolved from an activity based setup to institutionalized structure which is hierarchical and function in four levels.
  - Central
  - State
  - District and
  - Local
- The structure include involvement of various relevant ministries, government departments and administrative bodies.



# Central, state, district and local administration

- National Disaster Management Authority, NDMA: Disaster Management Act, 2005 provide for setting up of a NDMA with the Prime Minister as the Chairperson. It is assisted by National Executive Committee which comprises of Secretaries to the Government of India heading various Ministries or Departments having control over agriculture, atomic energy, defense, Drinking water supply, Environment and forest, finance, health, power, rural development, science and technology, space, telecommunication, urban development and water resources.
- State Disaster Management Authority, SDMA: Set up with the Chief Minister as the Chairperson. It is assisted by State Executive Committee under the chairpersonship of the Chief Secretary of the State.
- District Disaster Management Authority, DDMA: It is headed by the Collector and District Magistrate. It act as planning, coordinating, and implementing body at district level.
- Local Authority: Include Panchayati Raj and agencies which control and manage civic services. It include capacity building of its workers or employees for disaster management and to carry out relief and reconstruction activities in affected areas.



# Sea accidents

- Sea accident include accident of oil tankers, cargo ships, fishing trawlers, cruise and ferry ships carrying passenger.
- The major cause of sea accidents are:
  - Collision between two ships
  - Collision between ship and rocks, ice bergs, or coral reefs.
  - Maritime error
  - Technical or structural failure
  - Atmospheric storms
  - Pirates attack
- Effects of sea accident
  - Accident of passenger carrying ships, cruise or ferry cause loss of life
  - Accident of oil tankers cause oil spill that result in marine pollution damaging life of aquatic and avian species and deteriorating marine water habitat.
  - Accident of cargo ships and oil tankers cause loss of resources or materials resulting in economic loss.

