SCOPE

• Introduction
• Definition
• Classification & Types of Disasters
• Disaster Management
• Disaster Preparedness
• Medical and Public Health Response
• Public Health Impact of Disaster
• Disaster Mitigation
• Recent Disasters in India
• Disaster Management in India
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Introduction

• Disasters are as old as Mankind.
• The first description of Disaster and its management comes from mythological “Noah” and his ark.
• Similar Flood tales are widespread in- Greek Mythology, Puranas, Mesopotamian stories, and many cultures.
Introduction

Etymology

*Originated from Greek*

dus = bad  
aster = star

*Calamity due to position of a planet or a star.*

*Then evolved in Italian as disastro,*

*To become French désastre (de.zastʁ),*  
& then disaster.
Disaster -

Any occurrence that causes
damage, ecological disruption,
loss of human life,
deterioration of health and health services
on a scale, sufficient to warrant an extraordinary response from outside the affected community or area. (WHO)

A disaster can be defined as an occurrence either nature or man made that causes human suffering and creates human needs that victim cannot alleviate without assistance.

(American Red Cross)
Hazard -

Any phenomenon that has the potential to cause disruption or damage to people and their environment.

“A hazard is natural event while the disaster is its consequence. A hazard is perceived natural event which threatens both life and property……

A disaster is a realization of this hazard.”

- John Whittow

- When hazard involves elements of risks, vulnerabilities and capacities, they can turn into disasters.
Hazards may be inevitable but disasters can be prevented.
Vulnerability -

Risk refers to the “probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environmentally damaged) resulting from interactions between natural or human induced hazards and vulnerable conditions”
VULNERABILITY PROFILE OF INDIA

• 58% of the land is prone to floods and river erosion.
• 58% of the landmass is prone to earthquakes.
• 5,700 km of coastline is prone to cyclones and tsunamis.
• 68% of the cultivable area is vulnerable to drought.
• Hilly areas are at risk from landslides and avalanches.
• Further, the vulnerability to Nuclear, Biological and Chemical (NBC) disasters and terrorism has also increased.
Disaster occurs when hazards meet vulnerability.

**Root causes**
- Limited Access to -
  - Power
  - Structure
  - Resources
- Ideologies -
  - Political -system
  - Economic -system

**Dynamic pressures**
- Lack of –
  - Local institutes
  - Training
  - Appropriate skills
  - Local investment
  - Local market
  - Media freedom
  - Ethical standards in public life
- Macro forces -
  - Rapid population growth
  - Rapid urbanization
  - Arms expenditure
  - Debt repayments
  - Deforestation
  - Decline in soil productivity

**Unsafe conditions**
- Fragile physical environment
  - Dangerous locations
  - Unprotected buildings & infrastructure
- Fragile local economy
  - Livelihoods at risk
  - Low income levels

**Vulnerable society**
- Special groups at risk

**Public actions**
- Lack of preparedness
- Endemic disease

**Hazard**
- Earthquake
- High winds
- Hurricane
- Cyclone
- Typhoon
- Flood
- Volcanic eruptions
- Landslides
- Drought
- Virus
- Bacteria
- Pests
- Fire
- Chemicals
- Radiation
- Armed conflicts

**Risk = Hazard + vulnerability**

**Progression of vulnerability**

**NOT PREVENTED**
Disaster resilience is the ability of individuals, communities, organisations and states to adapt to and recover from hazards, shocks or stresses without compromising long-term prospects for development.
Disaster risk is defined as “the potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of **hazard**, exposure, and capacity”.

![Risk Diagram](image)
Thank You!