

Hazards and Disasters



Manash Jyoti Bhuyan
Assistant Professor
P.G. Department of Geography
Nowgong Girls' College

Hazard and Disaster?

- The International Strategy for Disaster Reduction (ISDR) of the United Nations (U.N.) defines a hazard as “a potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.”
- Disaster, whether natural or anthropogenic, are sudden adverse unfortunate extreme events or hazards which cause great damage to human beings as well as plants and animals.

“All the extreme events are hazards but not all the hazards are disasters”.

“A hazard may become disaster only when it strikes the inhabited area causing damages to human life and property.”

HAZARDS VS. DISASTERS

Hazard

- It is a dangerous situation that poses threat to human life.
- Has less critical consequences.
- Takes its full shape after a series of events, which might have led it to happen.

Disaster

- It is an event that completely causes damage to human life and property.
- Has more critical consequences
- Often happens in a short time, causing more severe effects.

Characteristics of Hazards

- Hazards are natural or man-induced extreme events
- Hazards are physical events or causes or processes of disasters,
- Hazards have potential for damaging different forms of lives, mainly human life,
- Hazards represent latent conditions for future threats to all types of biota,
- Hazards may or may not become disasters, etc.

CHARACTERISTICS OF DISASTERS

- Disruption to normal pattern of life. Such disruption is usually severe and may also be sudden, unexpected and widespread.
- Human effects such as loss of life, livelihood and property, injury, hardship and adverse effects on health.
- Effects on Social Structure such as destruction of or damage to infrastructure, buildings, communications and other essential services.
- Community needs such as shelter, food, clothing, medical assistance and social care.

Types of Hazards and Disasters

- Environmental; hazards and disasters are normally divided into the following two broad categories on the basis of main causative factors and their mode of origin:
 - Natural hazards and disasters
 - Man-induced (anthropogenic) hazards and disasters
- **Natural hazards and disasters**
 - **Planetary hazards and disasters**
 - **Terrestrial or indigenous disasters**
 - Volcanic disaster
 - Seismic disaster
 - Tsunami disaster
 - Landslide disaster

Types of Hazards and Disasters

- **Atmospheric or exogenous disasters**
 - **Abnormal or infrequent events**
 - Cyclone disaster
 - Hurricanes disaster
 - Tornado disaster
 - Lightning disaster
 - Hailstorm disaster
 - **Cumulative atmospheric disaster**
 - Flood disaster
 - Drought disaster
 - Cold wave disaster
 - Heat wave disaster
- **Extra-planetary hazards and disasters**
 - Collision of meteors with the earth
 - Mutual collision of meteors



Types of Hazards and Disasters

- **Man-induced (anthropogenic) hazards and disasters**

- **Physical disasters**

- Reservoir-induced seismic (RIS) disaster
 - Man-induced landslide disaster
 - Accelerated soil erosion

- **Chemical disasters**

- Release of toxic materials
 - Large-scale leakage of petroleum from oil-tankers
 - Nuclear tests and explosion

- **Biological hazards and disasters**

- Failure of nuclear plants
 - Eutrophication
 - Insect swarms (such as locust swarms)
 - Population explosion



Types of Hazards and Disasters

- Technological disasters
 - Failure of nuclear plants
 - Nuclear wars



NATURAL DISASTERS



tornado



volcano



earthquake



tsunami



drought



avalanche



dust storm



forest fire



thunderstorm



snowstorm



hurricane



windstorm



hailstorm



flood



sandstorm



sinkhole

Thank You