

#### WHERE CLASSICAL WISDOM MEETS INTELLIGENT LEARNING

#### 13. Natural Disasters

#### **BVES-151: Environmental Studies**

Unit 4: Disaster Management: Natural and Man-Made Hazards

**Topic: Natural Disasters** 

## ☐ What Are Natural Disasters?

A **natural disaster** is a sudden, extreme event caused by natural forces that results in major damage to life, property, and the environment.

These disasters are **unpredictable** and can happen **anywhere**, making disaster preparedness and management very important.

# ☐ Types of Natural Disasters

Natural disasters can be categorized into several types based on their origin:

### 1. Geological Disasters

Disaster Type Description

**Earthquake** Sudden shaking of the Earth's surface due to movement of tectonic plates.

Volcanic Eruption Eruption of magma, ash, and gases from a volcano.

**Landslide** Downward movement of rocks and soil, usually after heavy rain or earthquakes.

### 2. Hydro-Meteorological Disasters

Disaster Type Description

**Floods**Overflow of water submerging land, often caused by heavy rains or river overflow.

Cyclones / Hurricanes / Typhoons Intense circular storms with high-speed winds and heavy rains.

Drought Prolonged period of little or no rainfall leading to water shortages.

**Heatwave / Coldwave** Periods of unusually high or low temperatures causing health problems.

### 3. Climatic Disasters

- Wildfires: Uncontrolled fires in forests or grasslands, often caused by lightning or human activity.
- Avalanches: Rapid flow of snow down a mountain slope, common in hilly and snowy areas.

# □ Impacts of Natural Disasters

Natural disasters can have devastating consequences:

Impact Area Effect

**Human Life** Loss of life, injuries, displacement, trauma.

**Property** Destruction of homes, infrastructure, and businesses. **Environment** Forest destruction, soil erosion, water contamination.

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Impact Area Effect

**Economy** Loss of productivity, crop failure, high recovery costs.

**Health** Spread of diseases, lack of clean water and food, mental stress.

# ☐ Why Disaster Management is Essential

Disaster management aims to:

- Reduce the loss of life and property.
- Prepare communities through **early warning systems**.
- Ensure quick response and rescue operations.
- Help affected people recover and rebuild.
- Promote disaster-resilient planning.

# □ Disaster Preparedness and Mitigation Strategies

### □ Preparedness

- · Creating emergency plans.
- Conducting disaster drills and training.
- Community awareness campaigns.

### ☐ Mitigation

- Strengthening buildings in earthquake-prone areas.
- Constructing flood barriers and cyclone shelters.
- · Afforestation to prevent landslides and drought.

## □ Response

- Search and rescue operations.
- Emergency medical aid.
- Food and water supply distribution.

#### ☐ Recovery

- · Rebuilding homes and infrastructure.
- Psychological support and rehabilitation.
- Economic and social development programs.

### □ India and Natural Disasters

India is vulnerable to many natural disasters due to its geography:

### Disaster Affected Regions

Earthquakes Himalayan belt, Gujarat, Northeast India Floods Assam, Bihar, Kerala, Uttarakhand

Cyclones Eastern coast (Odisha, Andhra Pradesh, Tamil Nadu)

Drought Rajasthan, Maharashtra, parts of Karnataka

Landslides Western Ghats, Northeast states, Uttarakhand, Himachal Pradesh

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# ☐ Important Terms to Remember

Term Definition

**Hazard** A potential threat that can cause damage.

**Disaster** When a hazard causes widespread destruction and disruption.

MitigationSteps to reduce the impact of disasters.PreparednessPlanning and training before a disaster occurs.Rescue and ReliefImmediate actions to help people after a disaster.

# **☐ Quick Self-Check Questions**

- 1. What is a natural disaster? Name two examples.
- 2. List any three types of geological or climatic disasters.
- 3. Why is disaster preparedness important?
- 4. What are two impacts of floods or earthquakes?
- 5. Name two disaster-prone regions in India and the types of disasters they face.

# ☐ Summary of Natural Disasters

- Natural disasters are caused by natural forces like earthquakes, floods, cyclones, etc.
- They have serious effects on people, property, health, and the environment.
- Disaster management includes preparedness, response, and recovery strategies to reduce losses and ensure
- Every individual and community should be aware and prepared for natural disasters.

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