

# Natural Disasters

Lesson No.	Title	Activity
18	Natural Disasters	

## Meaning

Humans have been coping with natural disasters since time immemorial. There are so many disaster which can not be controlled by human intervention. Due to human intervention in the natural processes, the destructive power and frequency of natural disasters have increased considerably. According to U N statistics, natural disasters kill 1,00,000 persons on an average and cause property damage of Rs 20,000 crores world wide per year. Among the top ten natural disaster-prone countries, India stands second after China. Therefore, there is a need for creating awareness among all sections of the people about it's causes, consequences as well as preventive measures.

## Disasters in India

India is struggling with disasters from many years. Due to vulnerability of different kinds of disasters, it is said that India is a disaster prone country, the reasons are:

- Over 55% of the land area is vulnerable to earthquakes,
- 12% is flood prone,
- 8% is vulnerable to cyclones and
- 70% of the land under cultivation is drought prone.

## Natural Hazards and Disasters

Hazards	Disasters
A hazards is a dangerous physical condition or event.	A disaster disrupts the normal function of the society caused by a hazard
Earthquakes, floods, volcanic eruption, land slides, droughts etc are called natural hazards before they cause loss of life and damage to property	It causes damage to property and loss of life but it disrupts the opportunities of employment also
Small number of people are affected	A large number of people are affected by it
It may cause injury, loss of life or damage of property	It may cause widespread loss to life and property
Earthquakes, floods, volcanoes, tsunami, land slide, drought etc. are natural hazards	It affects the society to such an extent that external aid becomes, necessary to compensate the losses

## What is a flood

The inundation of an area by water is called a flood. In other words, when a river over flows its banks and water spreads in the surrounding areas is a flood.

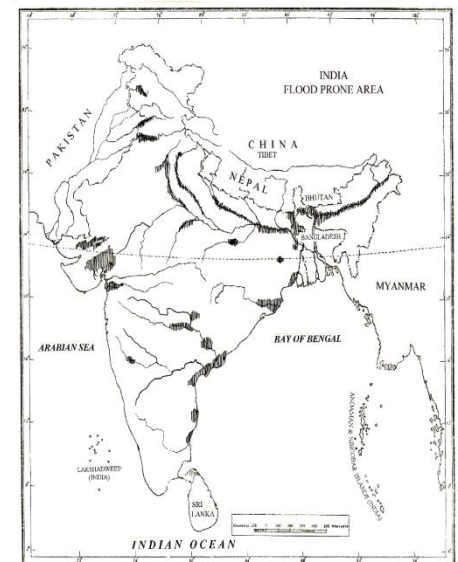
### Cause of flood

- Heavy rainfall
- Sediment deposition
- Deforestation
- Cyclone
- Interference in drainage system
- Change in the course of the river
- Tsunami

### Losses by flood

- Humans and animals both are affected by flood. Houses are damaged or collapse. Industries are crippled. Crops are submerged in flood water. Domestic as well as wild animals die. Out break of epidemics like malaria and diarrhoea etc. are common after flood.
- Losses by annual floods, instead of decreasing are increasing every year.
- According to an estimate on an-average property worth Rs. 210 crores is lost in floods every year.

### Flood prone areas



Great upon Survey of India Office Map printed in 1956.  
The vertical axes of India extend from the sea to a distance of twelve nautical miles measured from the appropriate base line.  
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## Flood control measures

- Reservoirs
- Embankments
- Afforestation
- Restoration of original drainage system

## Some do's and don'ts before, during and after the flood

- Listen to the radio for advance information and advise.
- Disconnect all electrical appliances, move all valuable household goods and clothing out of reach of flood water in case flood water reach the house.
- Move vehicles, farm animals and moveable goods to the higher ground.
- Prevent dangerous pollution.
- Keep all insecticides, pesticides etc. out of the reach of flood water.
- Switch off electricity and gas, in case you have to leave the house.
- Lock all door and windows if you have to leave the house.
- Do not enter flood water on foot or in a vehicle as far as possible.
- Never wander in the flooded area on your own.

## Drought

- According to meteorologists the rainfall deficiency during a long period over a large area is called a drought.
- Drought can also occur when ground water level is not within reach of agricultural communities.
- The government also declares on area affected by drought, if more than 50 percent crop loss happens in an area due to meteorological condition.

## Causes of drought

Major cause is scarcity of rain.

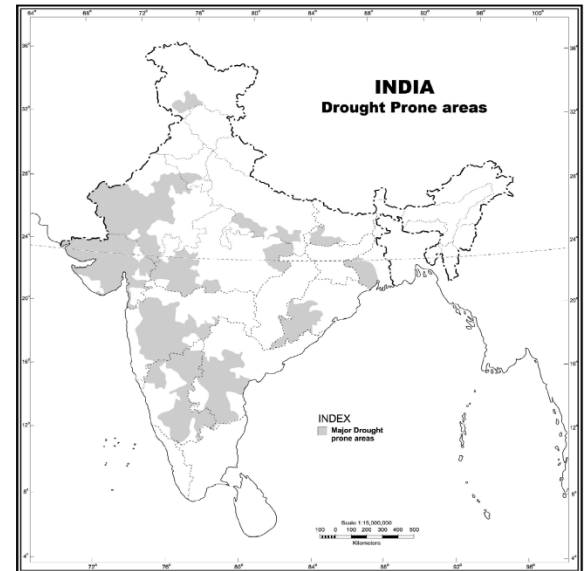
Humans have interfered in the environment processes by their activities.

People have filled up the natural resources, destroyed the vegetation cover and dug lakhs of tube wells and depleted the ground water reservoirs.

## Impact of drought

- Droughts cause scarcity of food and water. Hungry and thirsty people cry for help.
- People die of hunger, malnutrition and epidemics. People are forced to migrate from their area of residence.
- Crops fail due to scarcity of water. Cattle because fodder and water are not easily available.

## Drought prone areas of India



Based upon Survey of India Outline Map printed in 1982.  
The territorial waters of India adjoined into the sea to a distance of twelve nautical miles measured from the appropriate base line.  
The boundary of Meghalaya shown in this map is as interpreted from the North Eastern Areas (Proclamation) Act, 1971, but has yet to be verified.  
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## Measures to cope with Drought

Suitable farming methods for arid areas

- Sowing drought resistant crops
- Rain water harvesting
- By making high bunds around the fields, adoption of terrace cultivation, planting trees on the bunds of fields, the use of rainwater can be maximised.
- Water can also be conserved by taming the irrigation canals with mortar and bricks.
- Small quantity of water can irrigate comparatively larger area by using drip irrigation method.

## **Evaluate Yourself**

1. Define biome? Classify biomes on the basis of climate and vegetation.
2. Temperate biomes have exploited by human intervention. Explain.
3. Explain factors affecting biomes.