

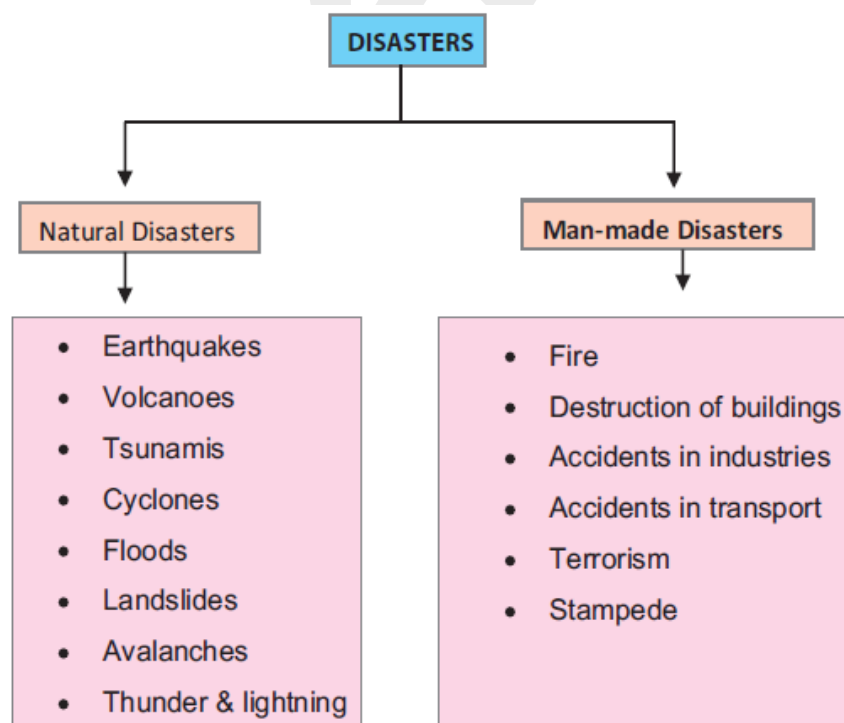
## 6th Social Science Lesson 21 Notes in English

### 21] Understanding Disaster

#### Introduction:

- Disaster is a very common phenomenon in the human society. It has been experienced by people since time immemorial.
- Though its form may be varied, it has been a challenge for society. The latest development which has been discovered in the **World Disaster Reports** recently is that, the disasters have increased in frequency and intensity. India is one of the most disaster prone countries in the world.
- It has some of the world's most severe droughts, famines, cyclones, earthquakes, chemical disasters, rail accidents and road accidents.
- The high density of population in the developing countries, especially in the high risk coastal areas, results in millions of people getting affected by natural disasters, especially in recurring disasters like **floods, cyclones, storm surges**, etc.

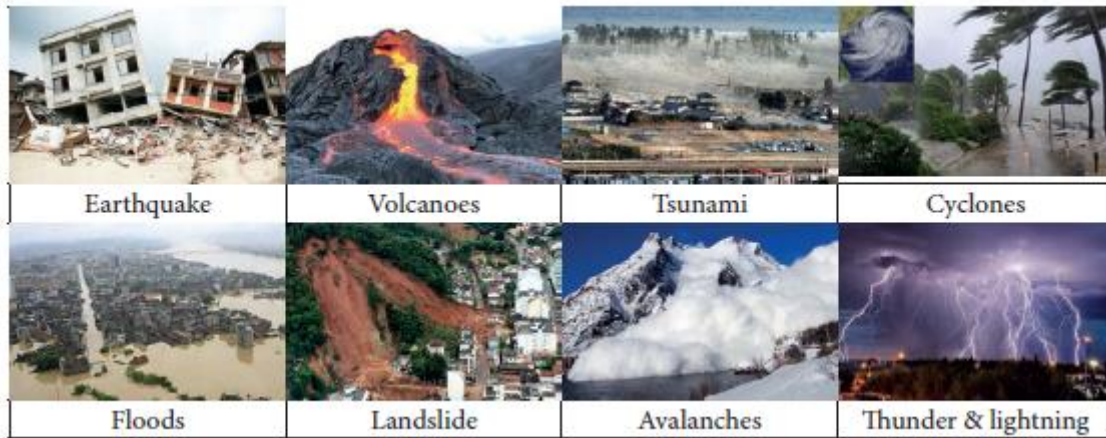
#### Disaster



- 'A disaster is a serious disruption of the functioning of a society involving human and material loss. Disaster is broadly classified into natural and manmade disasters.

#### Natural Disaster:

Learning Leads To Ruling

**Earthquake:**

- The **sudden shaking of the earth at a place for a short spell of time** is called an earthquake. The duration of the earthquake may be a few seconds to some minutes.
- The **point where an earthquake originates** is called its 'focus'.
- The **vertical point at the surface from the focus** is called 'Epicentre'.

**Volcanoes:**

Volcanoes are **openings or vents where lava, small rocks and steam erupt** onto the earth's surface.

**Tsunami:**

**Tsunami are waves** generated by earthquake, volcanic eruptions and underwater landslides.

**Cyclones:**

A **low pressure area which is encircled by high-pressure wind** is called a cyclone.

**Floods:**

An **overflow of a large amount of water**, beyond its normal limits, especially on the rain fed areas is called a flood.

**Landslide:**

The **movement of a mass of rocks, debris, Soil etc., down slope** is called a landslide.

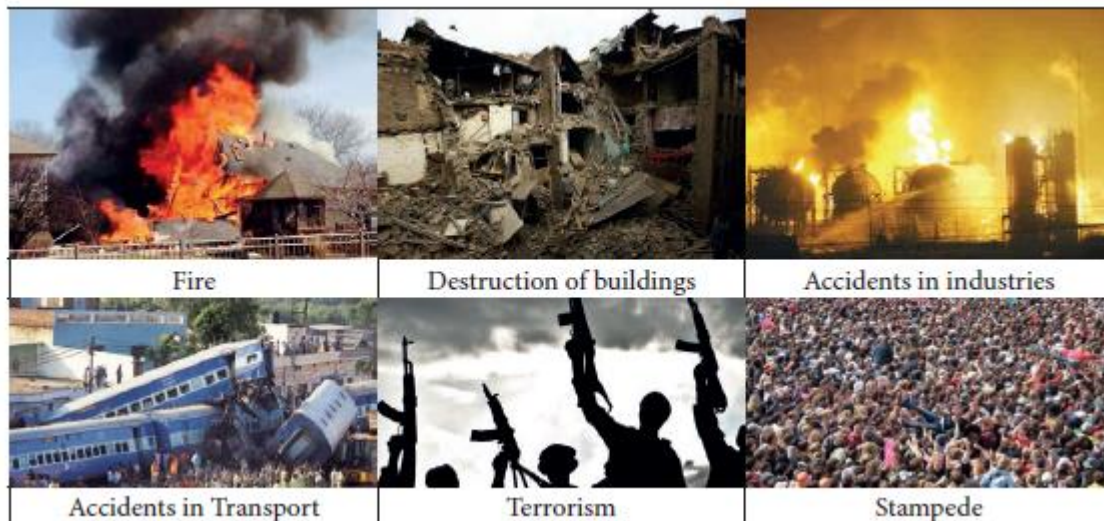
**Avalanche:**

A **large amount of ice, snow and rock falling quickly down the side of a mountain** is called an Avalanche.

**Thunder and lightning occur:**

Thunder is a series of **sudden electrical discharge** resulting from atmospheric conditions. This discharge results in sudden flashes of light and trembling sound waves which are commonly known as thunder and lightning.

### Man-Made Disaster:



### Forest Fire:

Massive forest fires may start in **hot and dry weather** as a result of lightning, and human carelessness or from other causal factors.

### Destruction of buildings:

Demolition of buildings by **human Activities**.

### Accidents in industries:

Chemical, biological accidents that occur due to human error. (e.g.) Bhopal gas tragedy

### Accidents in Transport:

Violation of road rules, carelessness cause accidents.

### Terrorism:

The **social unrest or differences in principles** leads to terrorism.

### Stampede:

The term stampede is a **sudden rush of a crowd of people**, usually resulting in injuries and death from suffocation and trampling.

### Tsunami and Floods:



- A killer Tsunami hit the **south east Asian countries on the 26th of December, 2004.**
- A massive earthquake with a magnitude of **9.1 -9.3** in the Richter scale Epicentre in the Indonesian island of Sumatra. It triggered one of the biggest Tsunamis the world had ever witnessed.
- The massive waves measuring up to 30 metres that killed more than **2,00,000 people of Asia**. In India, over 10,000 people were killed by this disaster. **Tamil Nadu** alone accounted for **1,705** deaths.
- All the coastal districts were affected, Nagapattinam was the worst hit in the state of Tamil Nadu.
- Fishermen, tourists, morning walkers, children playing in beach and people living on the coast were unprepared for the waves. So they lost their life and the most of the loss of lives and damage to property was within **500 metres** of the shore.
- The Indian government set up a Tsunami Early Warning System at **Indian National Centre for Ocean Information Services (INCOIS), Hyderabad in 2007.**

#### Do's and Don'ts -Tsunami:

- You should find out if your home, school etc., are in vulnerable areas along sea shore.
- Know the height of your street above sea level.

- Plan **evacuation routes and practice your evacuation routes**.
- Discuss tsunamis with your family.
- Review safety and preparedness measures with your family.
- If you see the sea water receding, you must immediately leave the beach and go to higher ground far away from the beach.
- Be aware facts about tsunami.

**Don'ts**

- Don't go to the coast to watch the Tsunami.
- Don't try to surf the tsunami waves.

**Floods:**

Floods are high stream flows, which **overlap natural or artificial banks of a river** or a stream and are markedly higher than the usual flow as well as inundation of low land.

**Flash floods:**

Flash floods that occur within **six hours** during heavy rainfall.

**River floods:**

River floods are caused by **Precipitation over large catchment areas** or by melting of snow or sometimes both.

**Coastal floods:**

Sometimes floods are associated with **cyclone high tides and tsunami**.

**Causes of floods:**

- Torrential Rainfall.
- Encroachment of rivers bank.
- Excessive rainfall in catchment.
- Inefficient engineering design in the construction of embankments, dams and canals.

**Effects of floods:**

- Destruction of drainage system

- Water pollution
- Soil erosion
- Stagnation of water
- Loss of agricultural land and cattle
- Loss of life and spread of contagious diseases.

**Do's**

- To find out if the settlement area is to be affected by flood or not.
- Keeping radio, torch and additional batteries, storing drinking water, dry foods items, salt and sugar.
- Safeguarding materials like kerosene, candle, match box, clothes and valuable things.
- Keeping umbrella and bamboo poles.
- Keeping first aid box and strong ropes to bind things.
- To dig canals from the farm land, to drain the excessive water keeping sand bags etc.,

**Donts:**

- Try to connect electricity once it is cut.
- Operate vehicles
- Swim against floods
- Avoid going on excursions.
- Neglect flood warning messages

**During Floods:**

- Cut off gas connection and electricity.
- Keep sand bags on drainage holes and bathroom holes.
- Leave immediately through the known passage or prescribed passage
- Drink hot water.
- Use bleaching powder to keep your environment hygienic.
- Before using match sticks and candles, ensure that there is no gas leakage.

- Don't eat more food when you are affected by diarrhea.
- Don't try to take anything that floats in flood.

**Disaster Risk Reduction:**

- The practice of reducing disaster risks through **systematic efforts to analyze and manage the causal factors of disasters**.
- There are four key approaches to public awareness for disaster risk reduction. Campaigns, participatory learning, informal education, and formal school based interventions.

**Chennai cyclone:**



- Chennai is one of the largest metropolitan cities in India, which lies on the south eastern coast. The **north east monsoon along with tropical cyclone hits Chennai** every year and gives heavy cyclonic rainfall.
- In **2015, November and December** due to heavy rain, the devastating floods that hit Chennai and other parts of **Tamil Nadu claimed more than 400 lives** and caused enormous economic damage.

**Forecasting and Early Warning centre:**

- Weather forecasting, Tsunami early warning system, cyclonic forecasting and warning provide necessary information which help in reducing risks during disasters.
- School Disaster Management Committee, Village Disaster Management Committee, State and Central government institutions take mitigation measures together during disaster.
- Newspaper, Radio, Television and social media bring updated information and give alerts on the vulnerable area, risk, preparatory measures and relief measures including medicine.

**More to Know:**

**Mitigation:** The lessening of the adverse impacts of hazards and related disasters.

**Forecast:** Definite statement or statistical estimate of the likely occurrence of a future event or conditions for a specific area.

**Rainfed:** Supplied primarily with rainwater.

**Magnitude:** A measure of the amount of energy released by an earthquake.

**Contagious:** Transmissible by direct or indirect contact .

**Catchment:** The action of collecting water, especially the collection of rainfall over a natural drainage area.