

Good Morning students,

This lesson is for class-V for the subject of geography in which Chapter-16 'Natural Disasters' will be continued with the explanation of the topics- "Floods and Cyclones". If all the students are ready then let us start our today's topic.

Floods :-

Floods occur when there is a rise in the level of water in a river due to very heavy rains, melting of glaciers, cyclones, inadequate drainage system, bursting of dams etc. Generally, floods are caused due to one or more unfavourable factors together.



Flood

For example, during heavy rains, a river may receive water at a faster rate than it can discharge it into the sea. Thus, a river may not be able to hold this extra water and overflows its banks, causing a flood in the surrounding areas. Most of the floods in India are caused by overflowing of rivers during the Monsoon season.

Destruction Caused by Floods :-

Floods can be one of the most destructive natural disasters in the world. They may cause the following forms of destruction.

- 1) There is a huge loss to life and livestock caused by drowning.
- 2) Structures like houses, bridges, roads etc. get damaged by gushing water.
- 3) Lack of proper water facilities, contamination of water leads to outbreak of epidemics, diarrhoea, viral infection, malaria and many other infectious diseases.
- 4) Flooding also affects agricultural lands as large areas of it get inundated leading to huge crop loss.
- 5) Floods affect the quality of soil. The land after the floods may become infertile due to erosion of top layer or it may turn saline if sea water floods the area.

Class- V (Geography) Ch-16

Measures for safety

Before flooding

- The nearest safe place should be accessible and made known to all residents in the area.
- People in villages must identify elevated areas to save them from flood water.
- A first aid kit with important medications should always be kept ready in case of an emergency.
- An emergency kit with strong ropes, a radio, a torch (with additional batteries), food items, fresh water, essential items such as salt and sugar, waterproof bags, umbrellas, candles, and matchboxes should always be kept ready.
- Trees act as natural barriers. Efforts should be made to plant as many trees as possible on river embankments to create a natural barrier against surging water.
- In flood-prone areas, a proper drainage system should be built and maintained so that excess water can be drained off.



Flood water

During flooding

- People living in the flood-prone areas should be made aware of the importance of following flood alerts transmitted on television and radio.
- Electrical appliances should not be used during a flood.
- An attempt should always be made to move to the higher grounds or to the terraces of buildings. People should wait for officials to evacuate and not try to wade through the flood water.

A storm or wind that rotates about the centre and moves forward at high speed, often causing rains is called a cyclone.

A cyclone at sea brings a huge volume of water from the sea to the coastal areas. The rushing sea water destroys everything that comes in its path. Cyclones are a great threat to the people living in coastal areas. They are called by different names in different parts of the world. In North America, they are known as 'hurricanes' while in Asia they are known as 'typhoons'. In India the cyclones are moderate in nature and are accompanied by strong destructive winds and heavy downpour.

Fresh Fact

Table 13.1: Different Cyclones and its speed

Speed of Wind in kilometre per hour	Name of the Cyclone
62 kilometre per hour	Tropical Cyclone
89-118 kilometre per hour	Severe Cyclonic Storm(SCS)
119-221 kilometre per hour	Very Severe Cyclonic Storm (VSCS)
Above 221 kilometre per hour	Super Cyclonic storm (SCS)

Measures for Safety:-

Some of the ways in which we can be prepared to cope with a cyclone are as follows:-



Cyclone

- 1) Daily TV weather reports should be telecast so that fishermen do not enter the high seas.
- 2) Safe shelters should be built by the government so that the affected population could be shifted there in time.
- 3) Proper arrangements for providing all the necessities of life, like food and water should be made before and after the cyclonic catastrophe.
- 4) People should not be allowed to go near the seashore for any adventurous activities.

Effects:- It causes flooding and destruction of settlements, farms and crops. The cyclone of Andhra Pradesh in 1977 and cyclone Nargis of 2008 were the worst cyclones that affected India. Cyclone Vardah caused a large damage to Chennai in December 2016.

Destruction caused by Cyclones

Cyclones characterised by strong winds, torrential rains and flooding cause a huge loss to life and property.

- High winds cause major damage to infrastructure and housing, especially the weak constructions.
- Cyclones are followed by heavy rains and floods in flat coastal areas because of the high tidal waves inundating the land over long distances.
- Contamination of water supplies may lead to viral outbreaks, diarrhoea and malaria.
- Ground and pipe water supplies get contaminated by flood waters.
- High winds and rains ruin the standing crop and food stock lying in low level areas.
- Salt from the sea gets deposited on the agricultural land and increases its salinity making it unsuitable for agriculture.
- Cyclones, especially the destruction caused by strong winds disrupt the smooth functioning of rail and road services.

About 8 percent of the total land area in India is prone to cyclones. The states which are most affected by cyclones are West Bengal, Odisha, Andhra Pradesh and Tamil Nadu on the east coast and Gujarat, Maharashtra, Goa, Karnataka and Kerala on the west coast.

That's all for today, Students.

Thank you.

Last page - (6)