

## 4

## Floods

## Lesson at a Glance

- **Floods** are phenomena in which water rises above its normal level in a certain region. Due to this, areas get submerged under water. They usually occur due to excessive rainfall.
- When a river overflows its banks and causes floods, we call it a **riverine flood**.
- Causes of floods include **heavy rains, melting of snow, strong tides**, storms and cyclones, **sediment deposition or silting of riverbeds**. Other causes are blocking of river channels after landslides, **change in river course and inefficient engineering design** in construction of dams, embankments and canals.
- The most **flood-prone areas** in India are the Ganga and the Brahmaputra basins. Other river basins in the Deccan are also flood-prone areas. The Western Monsoon period from June to September is the critical period for the occurrence of floods. Floods are an annual feature in some part of the country.
- In seasons of flooding, people should identify nearest **safe shelters**. An emergency kit containing useful objects like a first-aid kit, torch, water-proof bags, etc should be kept handy.
- After a **flood warning** is issued, the radio and the TV should be constantly used for further information. Dry food, drinking water and warm clothes should be kept handy.
- Before evacuating, authorities should be informed of the place you are going to. Power should be turned off and electrical items should be kept as high as possible.
- During floods, boiled water should be consumed. Food should be kept covered; surroundings should be disinfected. One should stay away from water of high depths. Snakebites are common during floods.

## TEXTBOOK QUESTIONS SOLVED

9. 1. Write a caption for the given picture.



**Ans.** Students are advised to use their own imagination to think a caption for the picture. Two sample captions are given here:

"In an ocean of troubles"

or

"Water, water, everywhere"

**Activity I**

- Find out if your village or locality (if in a city) has a DMT.
- Ask how you can help to prepare for disasters, and create awareness.
- If your area is flood prone, do a survey and make a list of old people, women and young children.
- Survey your regions and note down the buildings on raised platforms, which can be used during floods as a safe-shelter. You must also find out the nearest route to the safe shelter, and how many persons it can hold.
- Make posters on how to save yourself from floods and stick them in public places like markets, school buildings, community centre, etc.
- Discuss with your friends and prepare a contingency plan for yourselves. Ask your DMP for the village contingency plans and how you can be part of it.

**Ans.** Students should attempt this activity themselves with help from teacher.

**Activity II**

- Read below a newspaper extract from 2002.

In Assam, soldiers have helped rescue thousands of people marooned in remote villages, and more troops have been put on 'stand by' for relief operations. An army spokesman said that disaster management squads in speedboats and helicopters were also on standby. This is just the beginning of India's monsoon season, but the rains have been unusually heavy so far.

- A.** Find out which are the agencies and organisations that play an important role in flood preparedness and response.
- B.** Make a list of their local offices and people heading them. Ask your teacher to contact Red Cross or any of the other agencies to come and tell you how they prepare for floods and other disasters.

- Ans.** A. Groups such as Disaster Management Teams (DMTs) are involved in flood preparedness and response.
- B. Attempt yourself with help from your subject teacher.

**Activity III**

- Identify the States and areas that are vulnerable to floods by these rivers: Brahmaputra, Ganga and Sutlej.

- Ans.** Brahmaputra: Assam, Arunachal Pradesh.  
Ganga: Bihar, West Bengal.  
Sutlej: Punjab.

**Activity IV**

- Given below are the names of common rivers in India. Write whether these rivers flood frequently or not. —  
GODAVARI, BRAHMAPUTRA, MAHANADI, KAVERI, GANGA, SUTLEJ.

- Ans.** Godavari, Mahanadi, Kaveri and Sutlej do not flood frequently whereas Brahmaputra and Ganga do.

**Exercises**

- Q. 1.** List the causes for floods.

- Ans.** Causes of floods include heavy rains, melting of snow, strong tides, storms and cyclones, sediment deposition

or silting of riverbeds. Other causes are blocking of river channels after landslides, change in river course and inefficient engineering design in construction of dams, embankments and canals.

- Q. 2.** Suggest measures to prevent damage from frequent flooding. Two measures have been suggested, add more.
1. Raising the height of public and private buildings in low lying areas
  2. De-silting river beds regularly
  3. ....
  4. ....
  5. ....

- Ans.** \* Improving engineering design in construction of dams.  
\* Preparing evacuation spots beforehand.  
\* Keeping emergency kits ready.

- Q. 3.** How can communities prepare to face floods?

- Ans.** In seasons of flooding, people in flood-prone areas should identify nearest safe shelters. An emergency kit containing useful objects like a first-aid kit, torch, water-proof bags, etc should be kept handy. After a flood warning is issued, the radio and the TV should be constantly used for further information. Dry food, drinking water and warm clothes should be kept handy. Taking these steps can be helpful in minimising damage due to floods.

- Q. 4.** What should a community do before every flood season, to be prepared?

- Ans.** When the season of floods arrives, people in flood-prone areas can prepare by identifying nearest safe shelters and evacuation spots. Emergency kits containing useful objects like a first-aid kit, torch, water-proof bags, etc should be kept handy.

