

FLOOD

Flooding is an overflowing of water onto land that is normally dry. Floods can happen during heavy rains, when ocean waves come on shore, when snow melts too fast, or when dams or levees break. Flooding may happen with only a few inches of water, or it may cover a house to the rooftop. They can occur quickly or over a long period and may last days, weeks, or longer. Floods are the most common and widespread of all weather-related natural disasters. Flash floods are the most dangerous kind of floods, because they combine the destructive power of a flood with incredible speed and unpredictability. Flash floods occur when excessive water fills normally dry creeks or river beds along with currently flowing creeks and rivers, causing rapid rises of water in a short amount of time. They can happen with little or no warning.

Reasons of Flood

- a. **Rains:** Each time there are more rains than the drainage system can take, there can be floods. Sometimes, there is heavy rain for a very short period that result in floods. In other times, there may be light rain for many days and weeks and can also result in floods.
- b. **River overflow:** Rivers can overflow their banks to cause flooding. This happens when there is more water upstream than usual, and as it flows downstream to the adjacent lowlying areas (also called a floodplain), there is a burst and water gets into the land.
- c. Strong winds in coastal area: Sea water can be carried by massive winds and hurricanes onto dry coastal lands and cause flooding. Sometimes this is made worse if the winds carry rains them. Sometimes water from the sea resulting from a tsunami can flow inland to cause damage. Dr. Kumar Anandam Page 6
- d. **Dam breaking** (Dmas are built along the side of a river and are used to prevent high water from flooding bordering land). Sometimes, too much water held up in the dam can cause it to break and overflow the area. Excess water can also be intentionally released from the dam to prevent it from breaking and that can also cause floods.
- e. **Snow-melts:** In many cold regions, heavy snow over the winter usually stays un-melted for sometime. There are also mountains that have ice on top of them. Sometimes the ice suddenly melts when the temperature rises, resulting in massive movement of water into places that are usually dry. This is usually called a snowmelt flood. A flood occurs when water overflows or inundates land that's normally dry. This can happen in a multitude of ways. Most common is when rivers or streams overflow their banks. ... Coastal flooding occurs when a large storm or tsunami causes the sea to surge inland.

Effects of Floods Floods can have devastating consequences and can have effects on the

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- a. Economic: During floods (especially flash floods), roads, bridges, farms, houses and automobiles are destroyed. People become homeless. Additionally, the government deploys firemen, police and other emergency apparatuses to help the affected. All these come at a heavy cost to people and the government. It usually takes years for affected communities to be re-built and business to come back to normalcy.
- b. Deforestation.
- c. Soil erosion
- d. Environment: The environment also suffers when floods happen. Chemicals and other hazardous substances end up in the water and eventually contaminate the water bodies that floods end up in. In 2011, a huge tsunami hit Japan, and sea water flooded a part of the coastline. The flooding caused massive leakage in nuclear plants and has since caused high radiation in that area. Authorities in Japan fear that Fukushima radiation levels are 18 times higher than even thought.
- e. People and animals: Many people and animals have died in flash floods. Many more are injured and others made homeless. Water supply and electricity are disrupted and people struggle and suffer as a result.
- f. Flooding brings a lot of diseases and infections including military fever, pneumonic plague, dermatopathia and dysentery.
- g. Sometimes insects and snakes make their ways to the area and cause a lot of havoc

Prevention of Flood- Humans cannot stop the rains from falling or stop flowing surface water from bursting its banks. These are natural events, but we can do something to prevent them from having great impact. Here are a few. Sea walls and tide gates have been built in some places to prevent tidal waves from pushing the waters up ashore. In some areas too, sand bags are made and placed in strategic areas to retain floodwaters.

- a. Retaining walls: In some places, retaining walls levees, lakes, dams, reservoirs or retention ponds have been constructed to hold extra water during times of flooding.
- b. Town planning: It is important that builders acquire permission before buildings are erected. This will ensure that waterways are not blocked. Also, drainage systems must be covered and kept free from objects that clog them. This way, water can quickly run through if it rains and minimize any chance of town flooding. Drainage systems should also be covered to prevent litter from getting into them.
- c. **Vegetation:** Trees, shrubs and grass help protect the land from erosion by moving water. People in low-lying areas must be encouraged to use a lot of vegetation to help break the power of moving flood water

and also help reduce erosion. Education: In many developing countries, drainage systems are choked with litter and people have little knowledge of the effects that can have during a rain. Education is therefore very important, to inform and caution people about the dangers of floods, what causes floods, and what can be done to minimise its impact. Conflicts over water (international & inter-state). Conflict through pollution: Rivers are also used for industrial purposes. They act as reservoirs for supply of fresh water and also a receptor of waste water and rubbish from the industry. Water crossing borders that has been polluted by wastes from one country develops into an international conflict.

d. Management of water conflicts

1. Concerted efforts are required to enforce laws that check these practices to control water pollution.
2. In order to overcome the problem of sharing river water in a country, the concept of interlinking of rivers has been suggested.
3. Rivers should be nationalized, the National Water Authority and River Basin Authority should be given powers to ensure equitable distribution of basin water