

## Nature facts (Flood)

### 1. What types of floods?

There are three types of [floods](#). These include a) **flash flood**, b) **river flood**, and c) **coastal flood**.

a) **Flash flood** — When there is a cloudburst or torrential rainfall, it leads to a rise in water level very fast in rivers, streams, channels, or roads. The phenomenon is called a [flash flood](#). The flash flooding occurs within 6 hours of rainfall.

b) **River flood** – When there is continuous and slow rainfall, melting of snow, or heavy rainfall for a short duration, it leads to a rise in river level. The phenomenon is called a river flood.

c) **Coastal floods** — Coastal floods are caused by a storm surge or tsunami, resulting in a rise in the water level along coastal regions.

### 2. What do you mean by “floodplain”?

A [Floodplain](#) is a flat area of land by the side of the river that is susceptible to flooding. A floodplain is formed due to the deposition of sediment and silt from floodwater. When a river’s banks erode, a floodplain is formed. Floodplains occupy approximately two percent of the land surface. There are some benefits and some drawbacks to floodplain areas. It acts as a natural pathway for floodwater and also acts as a habitat for wildlife. The soil of the floodplain area is rich in nutrients and important for crop development. The floodplain areas act as storehouses for rainwater, which release water slowly during the time period. Residential areas located near floodplains are vulnerable to damage from floods.

### 3. What do you mean by wetland?

“An intermediate zone between land and aquatic systems, defined by water saturating the soil or covering the land, is called a wetland. [Wetlands](#) serve as natural filters, purifiers, and sponges; they reduce flood effects and thus play a role in water cycle regulation. Wetlands are classified on the basis of their location and properties, and are broadly categorized as, a) **coastal or tidal wetlands**, and b) **inland or non-tidal wetlands**.“

**Coastal wetlands** — Coastal wetlands are found along coastlines, such as [mangroves](#), [tidal flats](#), and [coastal reefs](#). They protect coastlands from erosion and storm bursts. [Salt marshes](#), mangrove forests, and [mudflats](#) are some examples.

b) **Inland or nontidal wetlands**– These are located far away from coastland. Inland wetlands are subclassified as i) swamps, ii) marshes, iii) peatlands, iv) shallow lakes, or ponds.

i) [Swamp](#) — In such wetlands there are woody plants and shrubs that are nourished by surface water. [The Okefenokee Swamp in the United States](#), the [Sundarbans](#) mangrove forest in India and Bangladesh, and the [Myristica swamp forests](#) of the [Western Ghats](#) in India are examples of swamp wetlands.

ii) [Marshes](#) – In such areas there are herbaceous plants that suit wet soil, whether it is tidal or non-tidal. The [Everglades](#) in [Florida](#), the [prairie potholes](#) in [North America](#), the [Pantanal](#) in [South America](#), and the Sunderbans in India/Bangladesh are examples of marsh wetlands.

iii) **Peatlands** — These areas have a layer of dead plant material and accumulate large amounts of water. The Ruergai plateau in the Himalayas, temperate [peatlands](#) like those in Ladakh, and tropical peat swamp forests in [Southeast Asia](#) are some examples.

iv) **shallow lakes and ponds** — These are places that have persistent or semipersistent water with minimal flow.

Wetlands play a crucial role in the maintenance of ecosystems. They provide food, shelter, and nests for plants as well as animal species. They accumulate a large quantity of carbon and thus play a role in environmental regulation. They also act as a resource for human well-being.

## References

- <https://kids.nationalgeographic.com/science/article/flood>
- <https://en.wikipedia.org/wiki/Flood>
- <https://www.britannica.com/science/flash-flood>
- [https://www.wikiwand.com/en/articles/coastal\\_flooding](https://www.wikiwand.com/en/articles/coastal_flooding)
- <https://kids.britannica.com/scholars/article/flood/34598>
- <https://en.wikipedia.org/wiki/Floodplain>
- <https://en.wikipedia.org/wiki/Wetland>
- <https://kids.britannica.com/scholars/article/wetland/76708>
- [https://en.wikipedia.org/wiki/Tidal\\_marsh](https://en.wikipedia.org/wiki/Tidal_marsh)