

UPSC Civil Services Examination

UPSC Notes [GS-I]

Topic: Major Landforms of the Earth [Geography Notes for UPSC]

Major Landforms of the Earth

The surface of the earth is uneven, some parts may be rugged and some flat. The earth has an immeasurable variety of landforms.

These landforms are a result of two processes and they are:

1. Internal process- The Internal Process leads to the upliftment and sinking of the earth's surface.
2. External process- It is the continuous wearing down and rebuilding of the land surface and includes two processes namely:
 - **Erosion**– It is the wearing away of the earth's surface.
 - **Deposition**– It is the rebuilding of a lowered surface (occurred due to erosion).

The erosion and deposition processes are carried out by running water, ice and wind.

Landforms can be grouped based on the elevation and slope and they are:

- Mountains
- Plateaus
- Plains

MOUNTAINS

- **Any natural elevation of the earth surface is called a Mountain.**
- **Range**- Mountains arranged in a line.
- **Glaciers** – Glaciers are permanently frozen rivers of ice in mountains.

There are three types of mountains and they are:

1. **Fold Mountains**
 - They are rugged relief and high conical peaks.
 - E.g. Himalayan Mountains and the Alps (Young fold mountains)
 - The Aravali range in India (oldest fold mountain system in the world)
 - The Appalachians in North America and the Ural mountains in Russia (very old fold mountains)

2. Block Mountains

- Created when large mass of land are broken and displaced vertically.
- E.g. The Rhine valley and the Vosges mountain in Europe

3. Volcanic Mountains

- Formed due to volcanic activity.
- E.g. Mt. Kilimanjaro in Africa and Mt. Fujiyama in Japan.

How the Mountains are useful?

- Mountains are very useful in various ways.
- They are storehouse of water and many rivers have their basis in the glaciers in the mountain.
- Reservoirs are made and water is harnessed for the use of people.
- Water from the mountains is also used for irrigation and generation of hydro-electricity.
- Mountains have a rich variety of flora and fauna.
- The forests provide fuel, fodder, shelter and other products like gum, raisins, etc.
- Mountains also provide a tranquil site for tourists.

PLATEAUS

- A plateau is an elevated flat land.
- It is a flat-topped table land standing above the surrounding area.
- E.g. The Deccan plateau in India is one of the oldest plateaus.
 - The Western plateau of Australia, the East African Plateau in Kenya (The Tanzania and Uganda), the Tibet plateau (the highest plateau in the world) etc.

How the Plateaus are useful?

- Plateaus are very useful as they are rich in mineral deposits.
- E.g. African plateau is famous for gold and diamond mining
- Chhotanagpur plateau in India is a huge reserves of iron, coal and manganese

PLAINS

- Plains are large stretches of flat land.
- Generally, not more than 200 metres above mean sea level.
- Generally, plains are very fertile; hence these plains are very thickly-populated regions of the world.
- E.g. largest plains made by the rivers are found in Asia and North America

- Large plains in Asia are formed by the Ganga and the Brahmaputra in India and the Yangtze in China.

How the Plains are useful?

- Plains are the most useful areas for human habitation.
- Building houses, construction of transport network, as well as for cultivation is easy.
- In India, the Indo-Gangetic plains are the most densely populated regions.

