

Ch: CLIMATE (NOTES)

READ THE FOLLOWING PARAGRAPH THOROUGHLY AND TRY TO UNDERSTAND.

**Climate** refers to the sum total of weather conditions and variations over a large area for a long period of time (more than thirty years).

**Weather** refers to the state of the atmosphere over an area at any point of time.

The elements of weather and climate are the same, i.e. temperature, atmospheric pressure, wind, humidity and precipitation. On the basis of the monthly atmospheric conditions, the year is divided into seasons such as:

- Winter
- Summer
- Rainy Seasons

## Climatic Controls

The climate of any place depends on the following factors:

### 1) Latitude

The amount of solar energy received varies according to latitude due to the curvature of the earth. That's why air temperature generally decreases from the equator towards the poles.

### 2) Altitude

The atmosphere becomes less dense and temperature decreases when we go to the higher altitude from the earth surface. This is the reason why hills are cooler during summers.

### 3) Pressure and wind system

The pressure and wind system of any area depends on the latitude and altitude of the place. It influences the temperature and rainfall pattern.

### 4) Distance from the sea

The sea exerts a moderating influence on the climate. As the distance from the sea increases, its moderating influence decreases and people experience extreme weather conditions. This condition is known as **continentality** i.e. very hot during summers and very cold during winters.

### 5) Ocean currents

Ocean currents along with onshore winds affect the climate of the coastal areas. For example, any coastal area with warm or cold currents flowing past it, will be warmed or cooled if the winds are onshore.

## **6) Relief features**

Relief plays a major role in determining the climate of a place. High mountains act as barriers for cold or hot winds. They may also cause precipitation if they are high enough and lie in the path of rain-bearing winds. Precipitation is any form of moisture which falls to the earth. It includes rain, snow, hail and sleet.

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