12. ATMOSPHERIC PRESSURE

- Air pressure or atmospheric pressure is defined as total weight of a mass of column of air above per unit area at sea level.
- The atmosphere is held on the earth surface due to the gravitational force of the earth.
- The atmospheric pressure is measured with the help of an instrument called Barometer.
- Atmospheric Pressures unit is milibars.
- Rapid decrease in the Barometer reading indicates towards a stormy weather.
- When Barometer reading first decreases and then increases slowly, it shows that the rains are approaching.
- Continuous increase in the barometer reading indicates towards anti-cyclonic condition and a clear weather.

Isobar

- Distribution of atmospheric pressure over the globe is shown with the help of imaginary lines are called isobars.
- Isobars are the imaginary lines.
- Isobar joins the places of equal pressure at the sea level.

Distribution of atmospheric pressure-

1. Equitorial low pressure belt (5ºN–5ºS)–

- This is a belt of very low atmospheric pressure.
- The equatorial low pressure belt is thermally induced.
- In this zone, theer is alomst no horizontal movement of air.
- The air in this Belt rises up.
- This belt is called a **"Belt of Calm"**
- Its other name is **"Doldrum".**

2. Sub-Tropical High Pressure Belt (30-40º N&S)–

- These winds get deflected towards east due to rotation of the earth.
- This phenomenon was first discovered by the french scientist Coriolis, hence this force exerted by the rotation of the earth is called coriolis forcce.
- The quanitiy of the force keeps increasing with increasing distances from the equatorial belt.
- This zone of high pressure is called **'Horse Latitude'(40⁰ N)**.

3. Sub-Polar Low Pressure Belt (60-65º N&S)–

- Low pressure is found in this belt.
- In this belt air rise up.
- This zone is characterized by cyclonic storms.

4. Polar High Pressure Belt (90º N-S)–

- Low Temperature found in this belt
- High pressure found in this belt