



# Meteorological Department Issues Warning in Madhya Pradesh

## Why in News?

[The Meteorological Department](#) in Madhya Pradesh has **issued a warning for 15 districts**. Over the past few days, the state has experienced storms, rain, and hailstorms in various areas.

## Key Points

- Due to [western disturbance](#), [cyclonic circulation](#) and trough line, a strong system is active in the state. There may be more activity of two western disturbances in the coming days. Due to this, rain and hail are expected.
  - The Meteorological Department has also **issued advisory for the people**.

## Western Disturbances

- These are a series of **cyclonic storms that originate in the Mediterranean region, travel over 9,000 km to bring winter rains to northwest India**.
  - A Western Disturbance **collects moisture from the [Mediterranean Sea](#), [Black Sea](#), and [Caspian Sea](#)** and traverses over **Iran and Afghanistan before hitting the western Himalayas**.
- Western Disturbances are the **primary source of snowfall that replenishes the Himalayan glaciers** during winter.
- These glaciers **feed major Himalayan rivers like the Ganga, Indus and Yamuna** as well as myriad mountain springs and rivulets.

## Monsoon Trough

- **A trough is a belt of low pressure extending to a large area**. This trough is seen during monsoon period, hence known as **Monsoon trough**.
- Monsoon trough is a **part of the Inter Tropical Convergence Zone (ITCZ)** where the northern hemisphere and southern hemisphere winds meet.
- This is **normally shown as a line connecting the location of monsoon low pressure areas**. These troughs run across continents during peak monsoon periods.