



Western Disturbance Across Northern India | Jammu & Kashmir | 30 Dec 2024

Why in News?

Due to a [western disturbance](#), northern India experienced **fresh snowfall** in Kashmir and widespread **rain** in Delhi, Rajasthan, Punjab, and Haryana.

Key Points

- **Kashmir's First Snowfall of the Season:**
 - Popular tourist destinations like **Gulmarg, Sonamarg, and Pahalgam**, as well as districts like Bandipora, Baramulla, and Kupwara, reported fresh snowfall.
 - The [India Meteorological Department \(IMD\)](#) predicted isolated light rain and snowfall in Jammu and Kashmir.
- **Rain and Cold Conditions:**
 - **Incessant rains continued in Delhi** marking the highest December rainfall in 15 years.
 - **Light to moderate rainfall** was forecast for **parts of Haryana, Uttar Pradesh, and Rajasthan**.
 - **Dense fog and rain** in Rajasthan worsened cold conditions and visibility.

Western Disturbances

- Western disturbances are **storms that originate in the Caspian or Mediterranean Sea, and bring non-monsoonal rainfall to northwest India**, according to the [India Meteorological Department \(IMD\)](#).
- They are labelled as an [extra-tropical storm](#) originating in the Mediterranean, is an area of low pressure that brings sudden showers, snow and fog in northwest India.
- The meaning of WD lies in its name.
 - The disturbance travels from **the "western" to the eastern direction**.
 - These travel eastwards on high-altitude [westerly jet streams](#) - massive ribbons of fast winds traversing the earth from west to east.
 - Disturbance means an **area of "disturbed" or reduced air pressure**.
 - Equilibrium exists in nature due to which the air in a region tries to normalise its pressure.

India Meteorological Department (IMD)

- IMD was **established in 1875**. It is the **National Meteorological Service of the country** and the principal government agency in all matters relating to meteorology and allied subjects.
- It works as an agency of **the Ministry of Earth Sciences**.
- It is **headquartered in New Delhi**.
- IMD is also one of the **six Regional Specialized Meteorological Centres of the World Meteorological Organization**.