



Western Disturbance

Why in News

According to the [India Meteorological Department \(IMD\)](#), a **western disturbance is likely to affect the Himalayan region** soon.

- The disturbances will result in fairly widespread **light to moderate snowfall and rains** in the **plains of Jammu**.

Key Points

- Western Disturbance (WD), 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.
- In the term **“extra-tropical storm”**, **storm refers to low pressure**. **“Extra-tropical”** means **outside the tropics**. As the **WD originates outside the tropical region**, the word “extra-tropical” has been associated with them.
- A **WD is associated with rainfall**, snowfall and fog in **northern India**. It arrives with rain and snow in Pakistan and northern India. The **moisture which WDs carry with them comes from the Mediterranean Sea and/or from the Atlantic Ocean**.
- WD **brings winter and pre-monsoon rain** and is important for the development of the [Rabi crop](#) in the Northern subcontinent.
- The WDs are not always the harbingers of good weather. Sometimes **WDs can cause extreme weather events** like floods, [flash floods](#), [landslides](#), dust storms, hail storms and [cold waves](#) killing people, destroying infrastructure and impacting livelihoods.
 - Expert opinion on western disturbances is divided regarding the **2013 floods in Uttarakhand** in which over 5000 people were killed, after three days of incessant rainfall.