



Western Disturbance

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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.