



## Mains Practice Question

**Q.** Explain the term western disturbances and their impact on the Indian weather systems.

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### Approach

- Start the answer by defining the western disturbances.
- Discuss the impact of western disturbances on the Indian weather systems.
- Conclude suitably.

### Introduction

Western Disturbances are low-pressure depressions that occur during winters, particularly in northern India. They are the extratropical storms that originate in the Mediterranean region and bring sudden winter rain and snow to the north-western parts of the Indian subcontinent.

### Body

#### Impact of western disturbances on the Indian weather systems:

- Western disturbances are estimated to bring 5-10% of India's total annual rainfall. They are the cause of the most winter and pre-monsoon season rainfall across North-West India.
- Western disturbances are usually associated with a cloudy sky, higher night temperatures, and unusual rain.
- Wheat is one of the most important crops, which helps to meet India's food security. Western disturbances precipitation has great importance in the growth of wheat and other Rabi crops.
  - However, strong western disturbances bring excessive precipitation that can cause crop damage, landslides, floods, and avalanches.
  - On the other hand, weak western disturbances are associated with crop failure and water problems across north India.

### Conclusion

Western disturbances are generally observed as a favorable beneficial phenomenon. However, owing to climate change, they have caused disasters in the form of cloud bursts and hailstorms.