Cloudbursts

Prelims – *Current events of National and International importance| Geography.*

Why in News?

Recently, Director-General of the India Meteorological Department (IMD), stated that while full-scale cloudbursts aren't increasing, India is witnessing a rise in Mini cloudbursts.

- **Cloudbursts -** It is a sudden, localized *downpour of extreme rainfall*, dumping 100 mm or more of water in a few minutes to an hour over a small area, typically in *mountainous or desert regions.*
- It is often accompanied by thunderstorms.
- **Mini cloudbursts –** It is defined as an extreme amount of rainfall, typically 5 cm (50 mm) or more within an hour over a geographical area. They remain "impossible" to forecast.
- **Formation -** It occurs when updrafts holding moisture in a cumulonimbus cloud suddenly collapse.
- It can grow up to 12-15 km in height through the entire troposphere (occasionally up to 21 km) and can hold huge amounts of water.
- **Causes –** Monsoons, Orographic lifts, Thunderstorms, Climate changes.
- **Effects –** Flash floods, Landslides, Soil erosion, Human losses, prone to communicable disease, Damage infrastructure.
- **Prone Regions –** The Himalayas, Western Ghats, Northeastern hill States and Coastal regions of India.
- **Confluence of disturbances –** The extremely active monsoon in northern India in a large-scale destruction of lives and property in Himachal Pradesh, Jammu and Uttarakhand.
- It was due to a confluence of several western disturbances (storms that travel to India from the Mediterranean) and storms from the Bay of Bengal moving northwards.
- **Recent incidents –** Cloudburst in Uttarakhand's Rudraprayag and Chamoli districts, Jammu, Kashmir & Ladakh.
- Chennai also experienced a cloudburst, with several areas across the city receiving heavy rainfall.

Reference

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