

## Mission MAUSAM

*Prelims: Current events of national & international importance | Geography  
| Disaster Management*

### Why in News?

*Updates on implementation of Mission Mausam presented in Parliament.*

- **Aim** - It is a mission to ***modernise weather tracking and forecasting*** and to deliver high-resolution weather services and provide impact-based services to every citizen with accurate weather alerts.
- **Type of Scheme** - Central Sector Scheme (100% funded by Union Government).
- **Launched in** - November 2024.

*The mission was officially inaugurated by Prime Minister Narendra Modi on January 14, 2025, marking the 150<sup>th</sup> anniversary of the India Meteorological Department (IMD).*

- **Nodal Ministry** - Ministry of Earth Sciences.
- **Implementing Agency** -
  - India Meteorological Department - Operational Forecasts.
  - National Centre for Medium Range Weather Forecasting - Modelling (3-7 days).
  - Indian Institute of Tropical Meteorology - Research Support.
  - Indian Space Research Organisation - Satellite Data.
- **Coverage** - Pan-India + surrounding regions, includes **Antarctic stations (Maitri & Bharati)**.
- **Objectives** - To achieve 5 × 5 km resolution forecasting.
- Improve accuracy by 10-15%.
- Enable impact-based & risk-based warnings.
- Ensure last-mile dissemination (household level by 2030).
- **Target - All citizens**, especially - Farmers, Fishermen, Disaster-prone populations.

- **Features - Observation Network** - Expansion of ***Doppler Weather Radars (DWRs)*** for precipitation and wind movement. Radiosonde for Upper-air systems
- Utilisation of Advanced instruments like **Disdrometers** (raindrop size), **LiDAR** (aerosols/clouds), **Radiometers** (temp & humidity).
- **Computing Power** - Use of High-Performance Computing (HPC) systems like *Pratyush* and *Mihir*, alongside AI and Machine Learning models.
- **Forecasting Approach** - Shift to impact-based forecasting and Risk-based warnings (damage-focused).
- **Nowcasting** - Increase the frequency of "Nowcasts" (very short-term predictions) from every 3 hours to **every hour**.
- **Dissemination Mechanism** - Mobile Apps - Meghdoot (Agriculture), Damini (Lightning alerts).
- Disaster alerts → SMS alerts via **Common Alerting Protocol (CAP)**.
- Space → ISRO satellites.
- Integration with disaster management authorities.

## References

1. [IMD | Mission Mausam](#)
2. [PIB | Mission Mausam](#)

