GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 3126
TO BE ANSWERED ON WEDNESDAY, 11TH MARCH, 2026

MISSION MAUSAM

† 3126. SMT. ANITA NAGARSINGH CHOUHAN:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the Government has launched 'Mission Mausam' with the objective of making the weather forecasting, climate services and early warning systems more accurate, effective and timely for disasters in the country;
(b) if so, the details of the primary objectives, key components and the timeline fixed for the implementation of the said Mission;
(c) whether the said Mission proposes the integration of data and technology between the India Meteorological Department (IMD) and the Indian National Centre for Ocean Information Services (INCOIS) along with the utilisation of Artificial Intelligence (AI), High-Performance Computing (HPC) and advanced radar systems and if so, the details thereof;
(d) whether any special action plan has been formulated by the Government to improve the reach and quality of weather services in the country particularly in the districts falling under Ratlam Lok Sabha constituency in Madhya Pradesh and other remote areas: and
(e) the details of the potential impact and benefits of the said Mission on agriculture, fisheries, disaster management and the daily life of the general public?

ANSWER
THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR
MINISTRY OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES
(DR. JITENDRA SINGH)

(a) Yes. The Government has launched “Mission Mausam” to enhance the accuracy, effectiveness, and timeliness of weather forecasting, climate services, and early warning systems for disaster management in the country. The mission is being implemented by the Ministry of Earth Sciences through its institutions, including the India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM), and the National Centre for Medium Range Weather Forecasting (NCMRWF), by strengthening observation networks, improving numerical weather prediction models, and expanding high-performance computing capabilities to deliver more accurate and timely forecasts and warnings.

(b) Yes. Mission Mausam, launched by the Ministry of Earth Sciences, aims to enhance the accuracy, lead time, and reliability of weather forecasts and early warnings for extreme weather events. The primary objectives include improving weather and climate prediction capabilities, strengthening observation networks, enhancing high-resolution numerical weather prediction models, and improving last-mile dissemination of weather services. In short Mission Mausam aims to make country “Weather Ready and Climate Smart”.

The key components of the Mission include expansion and upgradation of observation systems, augmentation of High-Performance Computing capacity, development of advanced modelling systems including Artificial Intelligence and Machine Learning, and improved impact-based forecasting services through institutions such as the India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM), and the National Centre for Medium Range Weather Forecasting (NCMRWF). The Mission is also supported and executed in other institutes within the MoES. The Mission is being implemented in phases till 2031.

(c) Yes. Mission Mausam envisages the integration of observational data, modelling systems, and technological capabilities among institutions of the Ministry of Earth Sciences, including the India Meteorological Department (IMD) and the Indian National Centre for Ocean Information Services (INCOIS), for improved weather, ocean, and climate services.

The Mission provides for enhanced utilisation of Artificial Intelligence (AI), High-Performance Computing (HPC) systems, advanced numerical weather prediction models, and expansion & upgradation of observation networks. These technologies will support complex data assimilation from atmospheric, oceanic, and satellite observations to improve the accuracy and lead time of forecasts and early warnings for extreme weather and ocean-related hazards.

(d) Yes. The Government has undertaken several measures to improve the reach and quality of weather services across the country, including remote and vulnerable regions. The Ministry of Earth Sciences, through the India Meteorological Department, is expanding the network of Automatic Weather Stations (AWS), Automatic Rain Gauges (ARG), and Doppler Weather Radars, and strengthening district-level forecasting and impact-based warning services. Ministry has also established a premier observational facility, located at Silkheda village in Sehore District, Madhya Pradesh. Positioned strategically in the heart of the monsoon core zone, Atmospheric Research Testbed (ART), Central India (CI) aims to address longstanding data gaps and improve understanding of monsoon convection, cloud microphysics, land-atmosphere interactions, and boundary layer processes that influence rainfall variability in Central India.

Weather forecasts and warnings are disseminated through multiple platforms including mobile applications (MAUSAM, MEGHDOOT, DAMINI etc.), SMS alerts, television, radio, and social media, ensuring wider outreach to the public and local authorities. These services are available across all States and districts, including those falling under the Ratlam Lok Sabha constituency in Madhya Pradesh, as well as other remote areas of the country. Further, sector-specific advisories are provided to farmers, disaster management authorities, and other stakeholders to support timely preparedness and response.

(e) Mission Mausam, implemented by the Ministry of Earth Sciences (MoES), is expected to provide significant benefits across multiple sectors by improving the accuracy and lead time of weather forecasts and early warnings. In agriculture, improved weather and monsoon forecasts support crop planning, irrigation scheduling, and protection from extreme weather events. In the fisheries sector, enhanced ocean and weather advisories issued by institutions such as the Indian National Centre for Ocean Information Services help ensure the safety of fishermen and support efficient fishing operations. The Ministry has successful used satellite derived data for the demarcation of Potential Fishing Zone (PFZ) as a proxy to potential shoals of fish aggregation in the Indian waters.

For disaster management, more accurate and timely forecasts of cyclones, heavy rainfall, floods, heatwaves, and other extreme events enable early warnings, evacuation planning, and preparedness by authorities. For the general public, improved weather services facilitate better planning of daily activities, travel, health preparedness during extreme weather conditions, and access to reliable weather information through multiple dissemination platforms provided by the India Meteorological Department.

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