GOVERNMENT OF INDIA MINISTRY OF EARTH SCIENCES

RAJYA SABHA UNSTARRED QUESTION NO. 514

ANSWERED ON 04/12/2025

WEATHER FORECASTS BY REGIONAL METEOROLOGICAL CENTRE (RMC) KOLKATA

514. SHRI SAMIK BHATTACHARYA:

Will the Minister of **EARTH SCIENCES** be pleased to state:

- (a) the level of accuracy of weather forecasts issued by the Regional Meteorological Centre (RMC), Kolkata during the last three years and the manner in which this accuracy compare with the national and international meteorological benchmark;
- (b) the measures taken by RMC Kolkata to improve the accuracy of forecasts;
- (c) the current status of infrastructure, staffing, vacancies and research capabilities of RMC Kolkata along with steps being taken to strengthen these resources; and
- (d) the number of weather warnings issued by RMC Kolkata during the last three years and the success rate of these warnings?

ANSWER

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

- (a) The level of accuracy of weather forecasts issued by the Regional Meteorological Centre (RMC), Kolkata over the past three years for different severe weather events such as heavy rainfall, heat wave, thunderstorm and dense fog at district and city levels for the State during last 3-years of 2022-2024 in terms of percentage correct are 84%, 95%, 62% and 90%, respectively against their national averages of 85%, 97%, 88% and 70%.
- (b) Different important measures taken in recent years to improve the forecast service. Details are given below:
 - Expansion of the Observation network, including installation of new automatic weather stations and new rain gauges
 - Multi-hazard impact-based forecasting and risk-based warning
 - Upgradation of logistic support and infrastructure
 - Implementation of impact-based forecast for different sectors like agriculture, transport (both aviation and surface), power, fisheries, tourism, and disaster management, etc., at the district and city level.
 - Use of a new decision support system (DSS) for data analysis and forecast decision in nowcasting (for a few hours) to short to medium range forecasting (up to a few days) at the districts, blocks, river catchment area, and State levels.
 - MoU with various academic institutions for research and development works for improving operational forecast; Internship of students, Regular forecaster training for officials of RMC Kolkata.

- (c) Currently, RMC Kolkata is equipped with the following infrastructures:
 - Weather monitoring, analysis, and forecasting systems
 - Multi-hazard early warning GIS-based DSS
 - The Area Cyclone Warning Centre (ACWC) in Kolkata has forecasting facilities that operate round the clock.
 - Two Flood Met offices and one Damodar Valley Corporation (DVC) Met Unit for providing the quantitative precipitation forecast and flood meteorological services over the concerned river basins.
 - State Agromet Advisory Centre (SAMC) for issuing the user-specific forecast and advisory to farmers
 - A total of 4 Airports Meteorological Offices are functional in the State, with the Meteorological Watch Office at Kolkata
 - One DWR functional at Kolkata round the clock
 - 14 departmental manned surface meteorological observatories, 18 part-time observatories, 52 Automated Weather Stations (AWS), 39 Automated Rain Gauge (ARG) stations, and 03 no. of high wind speed recorders (HWSR) covering the entire coast.

A total of about 334 officials are working in RMC Kolkata, with ACWC 29 no. of officials. Besides providing severe weather warnings to disaster managers and the public, it has been equipped with all the infrastructure needed to provide customised sectoral services to various sectors like Agromet, Aviation, Hydromet, etc. Scientists are also working in various research fields to improve the detection and accuracy of severe weather warnings. MoUs are also signed time to time with various academic institutions for research and development works. Advanced forecaster training, seminar, and symposium conducted for improving Human resources. Total sanctioned strength, men in position, and vacancy position of RMC Kolkata, Alipore, including DWR Kolkata as on 01.11.2025, as follows: Sanctioned strength (221), Mention in position (158), Vacancy position (63).

(d) Total number of severe weather warnings issued during 2022-2024 for the State of West Bengal is 1757, 723, 877, 2681, and 4868 number of warning bulletins issued for Heavy Rainfall, Heat Wave, Dense Fog, Thunderstorm, and Nowcast, respectively, and their accuracies are around 83%.
