

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. - 181
ANSWERED ON 08/12/2022

WEATHER FORECAST BY IMD

181. SMT. JEBI MATHER HISHAM:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether Government has noticed that various States including Kerala have been hiring services from international as well as private weather forecasters by using State Disaster Relief Fund apart from that of India Meteorological Department (IMD), if so, whether Government will take immediate measures to revamp weather forecast models of IMD;
- (b) steps taken to avoid conflicting forecasts by IMD and private weather forecasters, especially during extreme climate conditions, the details thereof;
- (c) whether Government will bolster IMD facilitating the forecast of localised weather phenomena like Gustnado; and
- (d) whether Government will take steps to establish a new weather forecast agency under Indian Space Research Organisation?

ANSWER

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

- (a) India Meteorological Department (IMD) is providing the best weather observation and forecast services for the benefit of the people of Kerala fulfilling their requirements in this regard and will continue to extend similar services in future also.

Since 2012, Kerala had a network of 15 AWSs. As per the request from Kerala Government, a total number of 100 AWS are being installed in Kerala. Eventhough there had been delay in the process due to technical reasons as well as due to the lock down related to the COVID-19 pandemic, installation was progressing in a phased manner.

Very high resolution Numerical Weather Prediction Model Forecast from IMD's state of the art Global Forecast System (GFS), Weather Research & Forecasting Model (WRF) and Global Ensemble Forecasting System (GEFS) are being provided by IMD to Kerala State Disaster Management Authority (KSDMA) since last two years. These forecasts are further downscaled and utilized to generate forecasts for finer spatial resolution like Taluka, district, river basin etc. to meet their requirements for sectorial applications. Regarding the quality of these forecasts, it is mentioned that these forecasts are being utilized by many countries of South Asia for their weather forecast services under regional activities of World Meteorological Organisation (WMO) and that of Regional Integrated Multi-Hazard Early Warning System (RIMES) for Africa and Asia.

From May 2020 onwards, IMD is providing rainfall forecasts at 12.5 Km resolution for next ten days to Kerala State Council for Science, Technology & Environment which is updated on daily basis to support their Basin Wise Emergency System for alert during flood event project for Periyar River Basin, Kerala.

Regarding Doppler Weather Radars (DWR) in Kerala, it is mentioned that two Doppler Weather Radars are already installed in Kerala; one at Kochi and another at Thiruvananthapuram which meet the requirements of Kerala.

- (b) The forecasts and warnings of IMD are disseminated to users including disaster managers by e-mail on regular basis. In addition to this, WhatsApp groups are created including disaster managers and IMD officials and forecast & warnings are disseminated through this facility also. The forecast & Warnings are uploaded in social media & website for reference by all concerned. The nowcasts related to Severe Weathers are disseminated through SMS also to the registered users.

IMD has taken various initiatives in recent years for improvement in dissemination of weather forecast and warning services based on latest tools and technologies. IMD has launched seven of its services (Current Weather, Nowcast, City Forecast, Rainfall Information, Tourism Forecast, Warnings and Cyclone) with 'UMANG' mobile App for use by public. Moreover, IMD had developed mobile App 'MAUSAM' for weather forecasting, 'Meghdoot' for Agromet advisory dissemination and 'Damini' for lightning alert.

In addition to this, IMD regularly holds Media briefing, issues Press Releases for significant weather phenomena and daily, weekly & monthly weather videos and interacts with stakeholders for management and awareness for extreme weather phenomena.

- (c) Very high resolution Numerical Weather Prediction Model Forecast from IMD's state of the art Global Forecast System (GFS), Weather Research & Forecasting Model (WRF) and Global Ensemble Forecasting System (GEFS) are being provided by IMD to Kerala State Disaster Management Authority (KSDMA) since last two years. These forecasts are further downscaled and utilized to generate forecasts for finer spatial resolution like Taluka, district, river basin etc. to meet their requirements for sectorial applications and severe weather events like Gustnado.
- (d) No Sir. IMD is the leading National Agency with international reputé to provide Weather & Climate Services in the country and the region including South Asia, Bay of Bengal and Arabian Sea region. Hence, there is no need for separate forecast agency under Indian Space Research Organization (ISRO) to be established.
