

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOK SABHA  
UNSTARRED QUESTION NO.1890  
TO BE ANSWERED ON FRIDAY, FEBRUARY 12, 2021**

**REGIONAL CENTRE OF NCMRWF**

**1890. SHRI RAJENDRA AGRAWAL :**

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

- (a) the steps taken by the Government to improve the weather forecasting in the country;
- (b) whether the Government has any plan to open the regional centres of National Centre for MediumRange Weather Forecasting (NCMRWF) in various cities and states of the country to improve weather forecasting and prediction;
- (c) if so, the details thereof, State/UT-wise and location-wise; and
- (d) if not, the reasons therefor?

**ANSWER  
MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND  
MINISTRY OF EARTH SCIENCES  
(DR. HARSH VARDHAN)**

- (a) Under the National Monsoon Mission, Ministry of Earth Sciences (MoES) has implemented two state-of-the-art dynamical prediction systems for short to medium range, extended range and seasonal forecasts. All these initiatives have helped to improve the skill of monsoon forecasts over the country. India Meteorological Department (IMD) started using the Monsoon Mission dynamical model to prepare operational seasonal forecast since 2017 monsoon season.

An improved suite of prediction models has already been implemented operationally by IMD for enhanced shorrange weather forecasting through assimilation of all available Indian and global satellite data in real time.

Since December 2016 IMD is using the Global Forecast System (GFS) and Unified model run at National Centre For Medium Range Weather Forecast (NCMRWF) operationally to generate deterministic forecasts at 12 km horizontal resolution in the short to medium range (Up to 10 days). The GFS assimilates global conventional atmospheric data as well as the

data from satellites and weather radars. There also exists a high resolution meso-scale model with 3 km resolution to provide location specific forecast.

In addition, a high resolution (12 km grid scale) state of the art Global Ensemble Prediction System (GEPS) namely Global Ensemble Forecasting System (GEFS) and Unified model Ensemble Prediction System (UMEPS) has been commissioned in 2018 for generating operational probabilistic weather forecasts for 10 days on daily basis.

The weather forecasting systems in the country are comparable to most of the developed countries in the world. Efforts are continuously made to improve the level of efficiency of the forecasting systems and to improve skill of weather forecasts. During the past few years, IMD has been continuously improving weather prediction services in terms of accuracy, lead time and associated impact. The forecasts and warnings are issued by IMD at the national, State and district levels. With the upgradation of observations and prediction system noticeable improvements are noticed in the recent past in skill of prediction, especially with respect to cyclones, heat waves and heavy rainfall.

It is planned to further enhance the accuracy of above mentioned weather forecasts systems with the enhancement in observational systems and advancement in numerical modeling and their effective & timely dissemination in the ensuing years.

(b) No Sir.

(c) Doesn't arise.

(d) NCMRWF is a National Centre of Excellence in Weather and Climate Modelling under this ministry. The mission of the Centre is to continuously develop advanced numerical weather prediction systems, with increased reliability and accuracy over India and neighbouring regions through research and development. NCMRWF provides all the necessary support to IMD for the generation of weather forecasts, and fulfils the requirements. However, IMD has its regional offices in all the states which caters the need for better dissemination of weather forecasts.

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