# GOVERNMENT OF INDIA MINISTRY OF EARTH SCIENCES RAJYA SABHA UNSTARRED QUESTION No.1769 TO BE ANSWERED ON THURSDAY, DECEMBER 01, 2016

### **UPGRADATION OF FORECAST SYSTEM OF IMD**

#### 1769. SHRI T. RATHINAVEL:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether it is a fact that the Indian Meteorological Department (IMD) is planning to shift next year to forecast system that relied on a supercomputer led dynamical weather modeling;
- (b) whether it is also a fact that IMD's weather forecast has been proving wrong constantly in recent times;
- (c) whether it is also a fact that even the IMD's forecast for August, 2016 went wrong; and
- (d) if so, the steps taken by Government in this regard?

#### ANSWER

## MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTRY OF EARTH SCIENCES (SHRI Y. S. CHOWDARY)

- (a) Yes Sir. From next year (2017), India Meteorological Department (IMD) is planning to implement a seasonal forecasting system that relies on a supercomputer based dynamical modeling system in addition to the existing statistical model based seasonal forecasting system. Both the forecasting systems will be used to prepare the operational seasonal forecasts. It may also be added that IMD is already using dynamical forecasting system for short range and medium range forecasts.
- (b) No Sir. It is not a fact that IMD's weather forecasts have been proving wrong constantly in recent times. IMD has been able to correctly predict several extreme weather and climate events like cyclones, deficient and excess monsoon rainfall, heat waves, heavy rainfall etc. in recent years. For example, IMD has been very successful in predicting the deficient southwest monsoon season rainfall over the country during the recent two years (2014 and 2015) and cyclone PHAILIN and HUDHUD during 2013 & 2014 respectively.
- (c) Yes Sir, IMD's monthly forecast issued for rainfall of August was overestimated than the observed rainfall in 2016.
- (d) The present long range forecast system based on the statistical models has shown some useful skill in predicting all India seasonal rainfall including the deficient monsoon season rainfall during 2015. However, in order to overcome the limitations of the statistical models used so far, dynamical coupled ocean-atmospheric model framework has been implemented under the National Monsoon Mission. IMD is planning to use dynamical forecasting system also to prepare the monthly and seasonal forecasts.