GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA

STARRED QUESTION NO:254
ANSWERED ON:18.08.2011
PREDICTION OF MONSOON
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Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the Indian Meteorological Department (IMD) has been successful in predicting arrival of monsoons for the last three seasons;

(b) if so, the details thereof?

(c) If not, the deviation, if any, State-wise;

(d) whether the IMD has sought international assistance for accurate prediction of monsoons in the country; and

(e) if so, the details thereof and the other steps being taken by the Government for accurate prediction of monsoons?

Answer

MINISTER OF SCIENCE & TECHNOLOGY AND MINISTER OF EARTH SCIENCES (SHRI VILASRAO DESHMUKH)

a) − e) A statement is laid on the Table of the House.

STATEMENT LAID ON THE TABLE OF THE LOK SABHA IN REPLY TO (a) to (e) OF STARRED QUESTION No. 254 REGARDING "PREDICTION OF MONSOONS" TO BE ANSWERED ON THURSDAY, AUGUST 18, 2011.

(a) Yes. The IMD has been successful in predicting the arrival of the monsoons and touching the southernmost tip of India in Kerala for the last 3-seasons of 2009, 2010 and 2011.

(b) The onset of southwest monsoon over Kerala signals the arrival of monsoon over the Indian subcontinent and represents beginning of rainy season over the region. From 2005 onwards India Meteorological Department (IMD) has been issuing operational forecasts for the monsoon onset over Kerala using an indigenously developed statistical model that has a characteristic model error of Â± 4 days during the middle of May every year. The operational Forecast for the 2011 Southwest Monsoon Onset over south Kerala coast was issued on 13th May 2011. The operational forecasts issued during all the last three years (2009 to 2011) were well within the error range of the as seen in the table given below.

Year	Actual Onset Date	Forecast Onset Date
2009	23rd May	26th May
2010	31st May	30th May
2011	29th May	31st May

(c) Does not arise.

(d) Yes.

(e) Currently, IMD uses a suite of statistical models for prediction of seasonal monsoon rainfall over India. Such a mechanism is continued to be used due to non-availability of a suitable coupled ocean-atmospheric model with a proven performance of capturing the realistic monsoon rainfall variability over India.

With the commissioning of the high-performance computing system recently, the performance of an adopted coupled ocean-atmospheric model of National Oceanic and Atmospheric Administration (NOAA), USA is being critically examined for the monsoon-2010 in terms of its performance in capturing locations of excess and deficient rainfall on monthly and seasonal time scales.

Based on the above, it is planned to build all research and development activities to develop a most representative and advanced dynamical model framework for India for forecasting monsoon rainfall and its variability in various space and time scales under the National Monsoon Mission initiative by involving all relevant organizations and research institutes of India and NOAA.