GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION No. **1904**
TO BE ANSWERED ON WEDNESDAY, JULY 23, 2014

Climate Modeling

1904. SHRIMATI POONAMBEN MAADAM:

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

(a) whether India has developed a climate model of its own;
(b) if so, the details thereof and if not, the reasons therefor;
(c) the details of climate modeling activities initiated/proposed to be initiated by the country; and
(d) the perceived advantages of climate modelling?

ANSWER
MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES (Independent Charge)
(DR. JITENDRA SINGH)

(a) Yes Madam.

(b)-(c) Government has launched the National Monsoon Mission to set up a state-of-the-art climate model for a) improved prediction of monsoon rainfall on extended range to seasonal time scale (16 days to one season) and b) improved prediction of temperature, rainfall and extreme weather events on short to medium range time scale (up to 15 days).

(d) At present operational extended range to seasonal forecasts are prepared using statistical methods which have constraints and limitations. Experimental forecasts from the research version of the climate model are generated and its performance is regularly evaluated with that of the existing models since 2011 apart from building focused R & D efforts to improve the model.

Centre for Climate Change Research (CCCR) of the Earth System Science Organization-Indian Institute of Tropical Meteorology (ESSO-IITM), Pune successfully incorporated Ocean Biochemistry and Ecosystem modules into the climate model, resulted in the manifestation of the first prototype of the ESSO-IITM Earth System Model. Currently test runs to evaluate the prediction of past climate in hindcast mode are being carried out.

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