GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 1287
TO BE ANSWERED ON THURSDAY, May 05, 2016

ERROR MARGIN OF IMD IN PREDICTING NORMAL MONSOON

1287. SHRI C.M. RAMESH:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) how the Ministry looks at the reduced error margin of India Meteorological Department (IMD) and its prediction that there would be a normal monsoon;
(b) how the Ministry looks at the possibility of 50 per cent of La Nina developing in the second half of this year; and
(c) how La Nina is helpful in getting more and more rains?

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

(a) The average absolute error (difference between forecast and actual rainfall) during the last 13 years (2003 -2015) was 5.92% of LPA compared to the average absolute error of 7.94% of LPA during the first 13 years (1990 -2002) just prior to that period. This indicates that the forecast has become more reliable in the last few years.

IMD's Operational Long Range Forecast (LRF) for the 2016 Southwest monsoon rainfall is as follows:

Quantitatively, the monsoon seasonal rainfall is likely to be 106% of the Long Period Average (LPA) with a model error of ± 5%. The LPA of the seasonal rainfall over the country as a whole for the period 1951-2000 is 89 cm.

(b) The latest model forecasts from Indian Institute of Tropical Meteorology (IITM)'s coupled ocean-atmospheric model and other international models indicate that the probability of development of La Nina condition increases towards the latter half of the year. Nearly all models predict weakening of El Niño, with a transition to El Niño–

Southern Oscillation (ENSO)-neutral likely during late summer 2016. Then, the chance of La Niña increases during the last quarter of 2016.

(c) The occurrence of La-Nina (anomalous cooling of Sea Surface Temperature of Equatorial Pacific ocean waters) has high positive correlation with Indian summer monsoon rainfall (ISMR). La-Nina events are generally associated with normal to above normal monsoons. La-Nina generally causes rising (ascending) motions of moisture laden air-masses over Indian landmass, resulting more than average rainfall. Thus, La Nina is generally helpful in getting more and more rains.

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