

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**LOK SABHA**  
UNSTARRED QUESTION No. **3959**  
TO BE ANSWERED ON THURSDAY, MARCH 21, 2013

**MONSOON FORECAST**

**3959. SHRI A. K. S. VIJAYAN:**

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

- (a) whether the India Meteorological Department (IMD) is aware of the dismal monsoon forecast;
- (b) if so, the details thereof;
- (c) the details of monsoon related projections of IMD during the last three years, current year and the corresponding actual figures;
- (d) the statistically acceptable margin of error between the projections and actual observation and whether such a difference lies between those figures; and
- (e) if so, the details thereof?

**ANSWER**

MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND  
MINISTRY OF EARTH SCIENCES  
(SHRI S. JAIPAL REDDY)

- (a) Earth System Science Organization (ESSO) - IMDs monsoon forecasts are not at all found to be dismal as far as the verification of last 10-years long range forecasts of monsoon are concerned. Details of the forecast errors are presented below:

Period	No. of years during Which Errors were Within $\pm 4\%$	No. of years during Which Errors were Within $\pm 4-8\%$	No. of years during Which Errors were higher than $\pm 8\%$
2003-12	5 ( 2003; 2005; 2008; 2010; 2012)	2 (2006; 2011)	3 (2004; 2007; 2009)
1993-02	2 (1993; 1995)	4 (1996; 1998; 2000; 2001)	4 (1994; 1997; 1999; 2002)

- (b) Does not arise.
- (c) Monsoon projections of ESSO-IMD for the last three years are presented in Annexure.
- (d) The present level of operational acceptability of error margins are of 4% and 5% for the forecasts of all-India seasonal monsoon rainfall issued in June and April respectively every year.
- (e) The present long range forecasting system based on the statistical models has shown some useful skill in predicting the all India season rainfall and the methodology has performed better than the earlier models that were updated in 2003 as per the details presented at (a) above.

**Annexure**

All India	June to September	23 <sup>rd</sup> April 2010	98 ± 5	102
All India	June to September	25 <sup>th</sup> June 2010	102 ± 4	
All India	June to September	19 <sup>th</sup> April 2011	98 ± 5	102
All India	June to September	21 <sup>st</sup> June 2011	95 ± 4	
All India	June to September	26 <sup>rd</sup> April 2012	99 ± 5	92
All India	June to September	22 <sup>th</sup> June 2012	96 ± 4	