

**GOVERNMENT OF INDIA  
EARTH SCIENCES  
LOK SABHA**

UNSTARRED QUESTION NO:4936  
ANSWERED ON:13.08.2014  
WEATHER FORECAST  
Meghwal Shri Arjun Ram ;Nimmala Shri Kristappa

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

- (a) Whether the weather forecast is made in different areas in traditional manner by people apart from the meteorological department;
- (b) If so, whether the Government proposes to link weather prediction made by these people to the meteorological department predictions and make these forecasts relevant;
- (c) If so, the details thereof;
- (d) The total number of research institutions in the country engaged in research on monsoon; and
- (e) The funds earmarked for undertaking research in the field during the last three plan periods, plan-wise?

**Answer**

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

(a) No Madam. Only Earth System Science Organisation-India Meteorological Department (ESSO-IMD) is mandated for generating all India Whether and Climate related warning and alert messages through operational Metrological services to general public and various other sector specific designated agencies in particular disaster management authority at national cum state and district level following established standard operating procedures .

(b)-(c) Does not arise.

(d) Major institutions of the country engaged in research on monsoon are:

1. India Meteorological Department (ESSO-IMD) .
2. Indian Institute of Tropical Meteorology (ESSO-IITM) , Pune.
3. National Centre for Medium Range Weather Forecasting (ESSO-NCMRWF), NOIDA.
4. Indian National Centre for Ocean Information Services (ESSO-INCOIS), Hyderabad.
5. Space Applications Centre, Ahmadabad (ISRO).
6. Centre for Mathematical Modeling and Computer Simulation, Bangalore.
7. Indian Institute of Technology, Bhubaneswar.
8. Indian Institute of Technology, New Delhi.
9. Indian Institute of Technology, Kharagpur.
10. Indian Institute of Technology, Kanpur.
11. Indian Institute of Science, Bangalore.
12. National Aerospace Laboratories, Bangalore.
13. Center for Development of Advanced Computing, Pune
14. Cochin University of Science and Technology, Cochi, Kerala
15. Andhra University, Visakhapatnam
16. Banaras Hindu University, Varanasi

(e) Although no separate allocation for monsoon research per se was provided, based on the requirement of research community in the country, funds are made available for carrying out research through few sponsored research programme by the Department of Science and Technology. After the establishment of Ministry of Earth Sciences (MoES) in 2006 structured research and development initiative involving MoES institution and research group have been lunched. Details of major programs of the MoES during the XII plan include

No.	Name of the Theme	Allocation for XII Plan (2012-17) in Crore
1.	Atmospheric Observation System Network	700
2.	Satellite Meteorology	70
3.	Integrated Himalayan Meteorology Programme (N)	108
4.	Agrometeorology	164
5.	Climate Services (N)	55

6. Numerical Modeling of Weather & Climate	90
7. Monsoon Mission Programme	290
8. Physics and Dynamics of Tropical Clouds (N)	120
9. Development of High Impact Severe Weather Warning System of India	89
10. Short Term Climate Prediction and Variability	90
11. Centre for Climate Change Research (CCCR)	100
12. High Resolution Operational Ocean Forecast and Reanalysis System	40
13. Centre for Advanced Training in Earth System Sciences and Climate - CAT	140
14. Outreach and Awareness Programme	67
15. High Performance Computing	568
Total	2691

Allocation to India Meteorological Department during last 3 five years plans are detailed below

Five Year Plan	Plan	Non-Plan	Total
Rs. in Crore			
9th Five Year Plan (1997-2002)	141.13	493.21	634.33
10th Five Year Plan (2002-2007)	328.45	596.06	924.51
11th Five Year Plan (2007-2012)	749.09	1090.98	1840.07

The NCMRWF is putting efforts to improve the adopted unified model in collaboration with UK for medium range scale monsoon rainfall forecasts including extreme weather phenomena. One of the Implementation Agreements - Dynamical Seasonal Prediction of Indian Summer Monsoon Rainfall (Establishment of Monsoon desk) was signed during the visit of President Obama in November 2010 under which Indian and US scientists are working jointly. The Government of India has committed to provide \$480,000 over a period of five years (Rs.2.4 crores approximately) for activities associated with establishment and maintenance of the "Monsoon Desk".