

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
STARRED QUESTION No. *4
TO BE ANSWERED ON WEDNESDAY JULY 18, 2018**

THUNDERSTORM STUDIES

***4. SHRI JYOTIRADITYA M. SCINDIA:
SHRI GAJANAN KIRTIKAR:**

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether it is a fact that thunderstorms are a regular feature during the pre-monsoon season in India but thunderstorm studies in the country are very rare and the people working on thunderstorms are very few and if so, the reasons therefor;**
- (b) whether in the wake of deadly thunderstorms that struck frequently in the north-west and eastern parts of the country, the Government has decided to set up an expert group on thunderstorms;**
- (c) if so, the details and the modalities to be examined by the expert group and the timeline set for the same;**
- (d) whether the Government has also plans to engage scholars from Universities and outside experts by funding thunderstorm prediction research and if so, the details thereof; and**
- (e) the steps taken/being taken by the Government to promote thunderstorm studies in India, improve IMD thunderstorm predictions and upgrade IMD to provide timely information in the affected areas?**

**ANSWER
MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(DR. HARSH VARDHAN)**

(a) to (e): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) to (e) OF THE LOK SABHA STARRED QUESTION NO. *4 REGARDING 'THUNDERSTORM STUDIES' FOR ANSWER ON 18thJULY, 2018.

(a) **Yes Madam. Thunderstorms are a regular feature, especially during the pre-monsoon season (March to June) in India. Thunderstorms are small scale (10-50 km) weather systems with a life span of couple of hours. Thunderstorms are often accompanied by rain, violent winds, lightning, and hail, thereby posing serious hazardous problems to the general public and various socio-economic sectors like aviation, agriculture, transport, power supply etc.**

For many years, India Meteorological Department (IMD), and other institutes of the Ministry of Earth Sciences and universities in India are involved in basic research on thunderstorms. However, scientists working on this research area in India are much smaller compared to scientists working on other areas like Monsoons and Climate Change.

(b) **Yes Madam. Ministry of Earth Sciences has formed an expert group consisting of scientists from India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM) and National Centre for Medium Range Weather Forecasting (NCMRWF) as members of the working group.**

(c) **The expert group is mandated to development of different monitoring and prediction (based on different techniques) tools for thunderstorms. The group is expected to come out with a better strategy for monitoring and predicting thunderstorms by March 2019.**

(d) **Yes madam. Ministry of Earth Sciences has already advertised the call for proposal on "Thunderstorm and Meso-scale Processes Prediction (THUMP) to receive research proposals from universities and academic institutions in the country specifically in this focussed area. The advertisement was published in July 2018 issue of Current Science journal and also in the Ministry's web page. Through this mechanism, Ministry will provide financial support to universities and academic institutions for working on this important research area.**

(e) **The ongoing augmentation of the IMD's observational network would help in improving the mesoscale prediction system. The proposed augmentation of radar Network of IMD, especially over northwest Himalayas, will also enable wider coverage under Thunderstorm Nowcasting. The Thunderstorm expert group is mandated to develop high resolution operational prediction system by March 2019. Ministry has also invited specific project proposals from universities on thunderstorm studies for research funding.**
