

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**RAJYA SABHA**  
STARRED QUESTION No. \*425  
TO BE ANSWERED ON **THURSDAY, AUGUST 07, 2014**

**INDIA-USA AGREEMENT TO DEVELOP MONSOON FORECAST MODEL**

**\*425. SHRI BAISHNAB PARIDA:**

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

- (a) whether India and USA propose to enter into an agreement to develop the monsoon forecast model, if so, the details thereof;
- (b) whether it is also proposed to improve weather systems in India under the above agreement; and
- (c) whether the above cooperation would help Indian farmers to increase productivity and enhance climate and crop forecasting to avoid losses, if so, the details thereof?

**ANSWER**

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

**(a)-(c) A statement is laid on the Table of the House.**

**STATEMENT LAID ON THE TABLE OF THE RAJYA SABHA IN REPLY TO (a) to (c) OF STARRED QUESTION No. 425 REGARDING “INDIA-USA AGREEMENT TO DEVELOP MONSOON FORECAST MODEL” ASKED BY SHRI BAISHNAB PARIDA FOR ANSWER ON THURSDAY, AUGUST 07, 2014**

- (a) No Sir. Recognizing the importance of scientific and technical cooperation in Earth Observations and Sciences a MoU was signed on the Earth sciences and Observations by the Ministry of Earth Sciences (on behalf of Govt. of India), and National Oceanic & Atmospheric Administration (on behalf of US Government) on 16<sup>th</sup> April 2008 to establish an enabling mechanism for undertaking joint activities between the two countries to use the combined scientific and technical skills in enhancing the observations of the Earth and use the information most effectively for the benefit of the society.

Under this MoU, various Implementation Agreements (IAs) were undertaken with specific strategy involving Indian and US groups with well defined objectives, deliverables, individual as well as joint roles and monitoring/evaluating mechanism. For overall monitoring and integration of the various activities, a mechanism, is being put in place in the form of Joint Committee (JC) having members from both the countries.

- (b) Yes Sir. One of the IAs - 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. A “Monsoon Desk” along with a dedicated scientist has been established in this regard. **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”. So far an amount of Rs. 1.53 crores (US \$284668) has been released to NCEP, USA for the purpose.** Indo-US scientists are currently sharing the knowledge and skills to improve the Climate Forecast System (CFS) for long-range forecasts of the monsoon and a first variant of Indian Earth System Model has already been developed as a part of overall joint efforts to improve the climate forecasting system.
- (c) Yes Sir. The main objective of the agreement is to develop dynamical weather prediction models with a full understanding of the Indian monsoon and associated rainfall characteristics as India’s dependence on monsoon rains for the major share of agricultural production.

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