GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION No. **3963**
TO BE ANSWERED ON WEDNESDAY, AUGUST 6, 2014

MONSOON PATTERN

3963. SHRI JAYANT SINHA:

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

(a) whether any assessment regarding the variable rate of precipitation patterns of the country including change in monsoon pattern has been made;
(b) if so, the details thereof alongwith noticeable change in monsoon pattern of the country noted including in Jharkhand;
(c) whether the Government has launched any programme to undertaking an assessment of the impact of climate change including change in monsoon pattern on key sectors of economy like water resources, agriculture, forests, energy, coastal zone and human health; and
(d) if so, the details thereof?

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

(a) Yes Madam.

(b) The Government is monitoring the variability of the weather phenomena and development of abnormal weather pattern like drought, flood, cyclone, heat and cold waves, etc. on a continuous basis. Records of past weather events show that extreme values in respect of heavy rainfall, maximum and minimum temperatures, seasonal rainfall etc. remained unsurpassed in many cases. Areas influenced by the abnormal weather pattern change are largely within the interannual and intra-seasonal weather and climate variability.

Heavy rain events (>10 cm/day) over central India are increasing while weak and moderate events are decreasing. The extreme rain events which are becoming more intense in recent years are localized and could be part of the natural variability of the monsoon system. No such pattern is discerned in respect of other weather phenomena.

The monsoon rainfall for the country as a whole over a longer data set has not shown any significant trend. However, Chhattisgarh, Jharkhand and Kerala have witnessed slight decrease in rainfall, and 8 sub divisions namely Gangetic West Bengal, West Uttar Pradesh, Jammu and Kashmir, Konkan and Goa, Madhya Maharashtra, Rayalaseema, Coastal Andhra Pradesh and North Interior Karnataka show increasing trend.

(c) Yes Madam.

(d) Under the Global and Regional Climate Change (GRCC) programme of the Ministry of Earth Sciences ,Earth System Science organisation (ESSO) has established a dedicated Centre for Climate Change Research (CCCR) under the Indian Institute of Tropical Meteorology (IITM), Pune.

Currently, CCCR is leading “Co-ordinated Regional Downscaling Experiment (CORDEX)” for the South Asian region under the aegis of the World Climate Research Program (WCRP) of the World Meteorological Organisation (WMO). The CORDEX program provides an important framework for a co-ordinated set of downscaled regional climate simulations for both the historical past and future decades. Training workshops are conducted for end-users, stakeholders in the South Asian region.

Studies under the aegis of India’s Second National Communication (NATCOM) submitted to the UNFCCC in May, 2012 and scientific study titled “Climate Change and India: 4X4 Assessment - A Sectoral and Regional Analysis for 2030s” in 2010, have assessed the implications and impacts under a projected Climate Change scenario, based on which adverse effects on agricultural, water, forests, health, sea level rise, extreme events and infrastructure have been assessed.

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