

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOK SABHA  
UNSTARRED QUESTION No. 3938  
TO BE ANSWERED ON WEDNESDAY, DECEMBER 17, 2014  
CHANGES IN WEATHER PATTERN**

**3938. SHRI SATISH CHANDRA DUBEY:**

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

- (a) whether the Government has set up any centre to undertake any study regarding the recent changes occurring in the weather pattern; and**
- (b) If so, the details thereof?**

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

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

**Development of Earth System Model (ESM-Version 1.0) is complete by building additional marine biogeochemistry module to the coupled ocean-atmospheric model for generating projections of global climate.**

**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. As a part of this effort, projections up to 2100 were made available from September, 2014 to user community at 50km grid for examination and analysis of the projected temperature and rainfall changes under Representative Concentration Pathway (RCP 4.5) scenario as defined by the Intergovernmental Panel on Climate Change (IPCC) for their Fifth Assessment Report (AR 5).**

**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.**

\*\*\*\*\*