

**GOVERNMENT OF INDIA
ENVIRONMENT, FORESTS AND CLIMATE CHANGE
LOK SABHA**

UNSTARRED QUESTION NO:1265

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Impact of Climate Change

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Will the Minister of ENVIRONMENT, FORESTS AND CLIMATE CHANGE be pleased to state:

- (a) whether India is facing the dual problem of Climate Change and Globalization and if so, the details thereof;
- (b) whether unprecedented increase in global temperature is likely to cause severe impact on the global hydrological system, ecosystem, sea level, crop production and related processes and if so, the reaction of the Government thereto;
- (c) whether the Government has conducted any study on the ill effects of climate change including of human health and agriculture if so, the details and findings thereof;
- (d) whether the Government proposes to launch any educational study/ programme on climate change in consultation with the States and if so, the details thereof; and
- (e) the details of financial assistance provided to the States in this regard?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI PRAKASH JAVADEKAR)

(a) Government of India is seized of the dual challenge of Globalization and Climate Change. Government has embarked upon major economic reforms since mid-1991 with a view to integrating with the world economy, & to emerge as a significant player in the globalization process. Greater integration of the economy with the global economy provides India with opportunities as well as brings certain challenges which are faced by all open economies in the world.

India is a party to the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol. There are institutional mechanisms at the National and State levels for addressing the threats of Climate Change and also for effective management of natural disasters which may get exacerbated by it. The Emissions Gap Report certifies that India is performing better.

(b) As per the fifth Assessment report (AR5) of Intergovernmental Panel on Climate Change (IPCC) published in 2014, globally averaged combined land and ocean surface temperature has risen by 0.85 [0.65 to 1.06] °C over the period 1880 to 2012. Changes in many extreme weather and climate events like heat waves, heavy precipitation and tropical cyclones have been observed since about 1950. India's contribution to cumulative emission (1850-2010) is just 2.7%. According to India Meteorological Department (IMD), in line with rising temperatures across the globe, all India mean temperatures have risen nearly 0.60 °C over the last 110 years. Further, IMD studies have highlighted that extreme events like heat waves have risen in the last 30 years.

The Earth System Science Organization-India Meteorological Department (ESSO-IMD) and Indian National Centre for Ocean Information Services are responsible for monitoring, detection and forecast of severe weather phenomenon and Central Water Commission for issuing flood warning in respect of rivers of India.

(c) Government has conducted a scientific study to assess the impact of climate change, and a report entitled "Climate Change and India: A 4X4 Assessment - A Sectoral and Regional Analysis for 2030s" was published in 2010. The study has assessed impacts of climate change on four key sectors of Indian economy, namely, Agriculture, Water, Natural Ecosystems & Biodiversity and Health, in four climate sensitive regions of India, namely, the Himalayan region, the Western Ghats, the Coastal Areas and the North-East Region. The study projects a mixed picture of implications for climate parameters and related impacts on the relevant sectors. The study projects a variable rate of change in agriculture production including losses in some crops, change in the composition of the forests and Net Primary Productivity and spread of Malaria in new areas.

(d) & (e) Government of India has been running successfully a special train, Science Express, for the past seven years, that has been visited by 31,798 schools and has conducted programmes in 391 stations. In the same vein, Science Express Climate Change Special is to visit 65 stations in the first phase spread over 20 States. Education materials are being prepared in 14 Indian languages. In each of the State, it is expected to work closely with the State Government and also conduct platform level activities. The train will give an understanding on the Science of Climate Change, its impacts, the efforts of India in the area of Climate Change Mitigation and Adaptation. It will also highlight aspects of India's traditions and customs which are in consonance with a frugal lifestyle that is required for a world challenged by climate change. The exhibition also inter alia showcases the stand India has taken on equity, and positive action each child/youth and general visitor could take in their own environment.

Besides the above, the Ministry also has a number of other ongoing educational programmes dealing with issues of climate change and sustainable development. Through the programme of 'National Green Corps' and the in-class programme 'Paryavaran Mitra'; the

Ministry reaches out to over 2 lakh middle schools in the country and climate change is an important part of this programme. The Ministry's programme 'National Environmental Awareness Campaign (NEAC)' which involves over 16000 NGOs and other partners across India, also raises general awareness on climate change.

In addition, Government has also released the National Action Plan on Climate Change (NAPCC) in 2008. The NAPCC includes eight National Missions in specific areas of energy, habitat, water, forestry, agriculture and sustaining Himalayan ecosystem. The Government of India has requested all State Governments to prepare State Action Plan on Climate Change (SAPCC) in line with the objectives of the NAPCC. So far, 28 States and 4 Union Territories have prepared their SAPCC with the financial and technical support provided by this Ministry.
