

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 1199
TO BE ANSWERED ON 28.06.2019

Effects of Climate Change

1199. SHRI RAMPRIT MANDAL:

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

- (a) whether major climate change has taken place in the Indian subcontinent;
- (b) if so, the details thereof;
- (c) the details of the negative effects of climate change on human life and natural resources;
- (d) whether the Government has taken steps to mitigate the negative effects of climate change; and
- (e) if so, the details thereof and the results achieved therein?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BABUL SUPRIYO)

(a) and (b) According to India's Second Biennial Update Report submitted to the UNFCCC, the analysis of rainfall data from the India Meteorological Department (IMD) observational network for the period 1901-2010 shows increasing trends in the frequency of dry days in most parts of the country during winter, pre-monsoon and southwest monsoon seasons. In conformity with the rising trend observed in global surface temperatures ($0.85 \pm 0.18^\circ\text{C}$) since 1901, the annual mean temperature for the period 1901-2017 over India has also shown a significant increasing trend of 0.66 degree C per hundred years.

(c) The Government commissioned a scientific study to assess the impact of climate change and published its report titled "Climate Change and India: 4X4 Assessment - A Sectoral and Regional Analysis for 2030s". The report has assessed impact 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 Area and the North-East Region. The study projects a mixed picture for climate parameters and related impact on the relevant sectors. The study projects a variable rate of agricultural production including decrease in yield in some crops and change in the composition of the forests and net primary productivity. Extreme precipitation events are likely to increase in all the regions. Water yield is projected to increase in the Himalayan Region, whereas it is likely to be variable across other three regions. Malaria is projected to spread to new areas and its transmission may increase in duration.

(d) & (e) The Government has launched the National Action Plan on Climate Change (NAPCC) in June 2008 to deal with the climate change and related issues. NAPCC comprises of eight Missions in specific areas of solar energy, enhanced energy efficiency, habitat, water, sustaining Himalayan ecosystems, forestry, agriculture and strategic knowledge for climate change, which addresses the issues relating to mitigation of greenhouse gases and adaptation to the adverse impacts of climate change on environment, forests, habitat, water resources and agriculture. All States and Union Territories (UTs) have also been requested to prepare State Action Plan on Climate Change (SAPCC) in line with the objectives of the NAPCC highlighting state specific issues relating to climate change. So far, 33 States and UTs have prepared their SAPCC.

India's Nationally Determined Contributions under Paris Agreement, submitted in October 2015, for post-2020 period envisages reduction of its emission intensity of GDP by 33 to 35% by 2030 from 2005 level, achieve about 40% cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030, and create an additional carbon sink of 2.5 to 3 billion tons of CO₂ equivalent through additional forest and tree cover by 2030.
