

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**LOK SABHA**  
**UN-STARRED QUESTION NO.3411**  
TO BE ANSWERED ON 13.03.2020

**Climate Change**

3411. SHRI KUNWAR PUSHPENDRA SINGH CHANDEL:

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

- (a) whether climate change has affected the agriculture plantation and water resources during the last two decades;
- (b) if so, the details thereof, State-wise; and
- (c) the details of the steps being taken in Bundelkhand region to mitigate adverse effects of climate change?

**ANSWER**

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

(a) to (c) Climate change is a global environmental challenge and there are studies projecting varied impacts on different sectors including agriculture and water resources. According to India's Second Biennial Update Report (BUR) submitted to the United Nations Framework Convention on Climate Change (UNFCCC), the overall impact of climate change on water resources is anticipated in terms of rise in extreme events, thereby increasing the flood and drought frequency, intensity of rainfall and spatial variability.

Agriculture sector in India is vulnerable to climate change. Higher temperatures tend to reduce crop yields and favour weed and pest proliferation. It also has negative effects on irrigated crop yields across agro-ecological regions both due to temperature rise and changes in water availability. Rainfed agriculture will be primarily impacted due to rainfall variability and reduction in number of rainy days.

Government has launched the National Mission for Sustainable Agriculture (NMSA) under the National Action Plan on Climate Change (NAPCC) to transform agriculture into an ecologically sustainable, climate-resilient production system by devising appropriate adaptation and mitigation strategies for ensuring food security at the national level.

The Government of India has formulated a National Perspective Plan for Water Resources Development which envisages the transfer of water from surplus basins to water deficit basins. The Government has also circulated a Model Bill to 'Regulate and Control the Development and management of Ground Water' to all the States/UTs to enable them to

enact suitable ground water legislation for regulation of its development which includes provision of rain water harvesting.

Thirty three States/Union Territories including Uttar Pradesh have prepared their State Action Plan on Climate Change (SAPCC) taking into account State's/UT's specific issues relating to climate change. Under the grant scheme 'National Adaptation Fund for Climate Change (NAFCC)', Government is providing grants to Uttar Pradesh to support adaptation measures in Banda, Hamirpur, Orai (Jalaun) & Chitrakoot Districts of Bundelkhand region.

Indian Council of Agriculture Research (ICAR) through its research institutes viz. Indian Institute of Farming System Research (IIFSR), Central Research Institute for Dryland Agriculture (CRIDA), All India Coordinated Research Project on Dryland Agriculture (AICRPDA), All India Coordinated Research Project on Farming Systems (AICRPFS) and Network Project on Organic Farming (NPOP) is continuously engaged in developing, refining and demonstrating efficient and sustainable cropping patterns for Bundelkhand region.

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