

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 6
TO BE ANSWERED ON 21.07.2025

Impact of Global Warming and Climate Change

6. SHRI RAJEEV RAI:

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

- (a) whether the Government has taken any major steps towards mitigation of adverse impact of global warming and climate change with respect to farmers of northern plains in the country, especially in the flood affected areas of eastern Uttar Pradesh during the last five years and the current year; and
- (b) if so, the details thereof and if not, the reasons therefor?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) and (b) The Government of India stands committed to combating climate change and has launched many schemes and programs to scale up India's action on both, the adaptation and mitigation. Appropriate measures are being taken under these schemes and programs across many sectors including water, agriculture, forest, energy and enterprise, sustainability mobility and housing, waste management, circular economy, and resource efficiency, etc.

The Government is implementing the National Action Plan on Climate Change (NAPCC), which comprises missions in specific areas of solar energy, energy efficiency, water, agriculture, Himalayan eco-system, sustainable habitat, green India, human health, and strategic knowledge on climate change. The respective nodal Ministries implement these, Missions. One of the Missions, the National Mission for Sustainable Agriculture (NMSA), aims to make the agriculture sector more resilient to the changing climate.

Considering the challenge posed by climate change in agriculture, several schemes have been initiated under NMSA to deal with the adverse climatic situations. Per Drop More Crop (PDMC) scheme was launched during 2015-16 to increase water use efficiency at the farm level through Micro Irrigation technologies i.e. drip and sprinkler irrigation systems. Rainfed Area Development (RAD) scheme implemented from 2014-15 in the country focuses on Integrated Farming System for enhancing productivity and minimizing risks associated with climatic variability. The Soil Health Card (SHC) / Soil Health Management (SHM) scheme is operational through the State Governments under National Project on Management of Soil Health & Fertility. The main objective of the scheme is to assist States in promoting Integrated Nutrient Management through judicious use of chemical fertilizers including secondary and micronutrients in conjunction with organic manures & bio-fertilizers for improving soil health

and its productivity. Soil Health Card provides information to farmers on soil nutrient status of their soil and recommendation on appropriate dosage of nutrients to be applied for improving soil health and its fertility.

The Government of India has supported preparation of State Action Plans on Climate Change (SAPCC) in the States and Union Territories including the State of Uttar Pradesh (UP) to address state specific issues relevant to the climate change. The SAPCC for the State of UP has identified five strategies to deal with impacts of climate change in Agriculture and Allied Sector.

The Department of Science and Technology (DST) has established a Centre of Excellence (CoE) at Banaras Hindu University, Varanasi under National Mission for Strategic Knowledge on Climate Change (NMSKCC), which is mandated to provide climate services to society through Early Warning System. This DST-CoE issues need-based heat and cold wave, and heavy rainfall warnings. Additionally, it also issues location and crop-specific weather-based advisories for the benefit of the farming community of Uttar Pradesh in collaboration with India Meteorological Department, Indian Space Research Organisation and the Ministry of Agriculture & Farmers Welfare. Different media platforms like print/ visual/SMS/ Radio/IT-based media and Interactive Voice Response Service are being used for these advisories which facilitate large number of farmers for appropriate field-level actions.

The Government is also implementing a network project, namely National Innovations in Climate Resilient Agriculture (NICRA), which aims to study the impact of climate change on agriculture, including crops, and promote climate resilient technologies to cope with weather extremes. In Uttar Pradesh, one village cluster from each of 17 vulnerable districts viz., Baghpat, Bahraich, Banda, Basti, Chitrakoot, Gonda, Gorakhpur, Hamirpur, Jalaun, Jhansi, Kanpur (Dehat), Kaushambi, Kushi Nagar, Maharajganj, Pratapgarh, Sant Ravidas Nagar and Sonbhadra were selected for technology adoption through NICRA.

In addition, the Government is promoting organic farming in the country since 2015-16 through the schemes of Paramparagat KrishiVikasYojana (PKVY). The yojana also aims to promote traditional indigenous practices and to create awareness of farmers. Mission for Integrated Development of Horticulture (MIDH), Agroforestry & National Bamboo Mission also aim to increase climate resilience in agriculture. The Risk and vulnerability assessment was performed for predominantly agriculture districts. A total of 109 districts are categorized as very high and 201 districts as highly vulnerable.

Promising climate resilient technologies have been demonstrated to the farmers, which can be upscaled in convergence with various developmental programs in the State. Some of the climate resilient technologies such as system of rice intensification, aerobic rice, direct seeding of rice, zero till wheat sowing, cultivation of climate resilient varieties tolerant to extreme weather conditions; micro irrigation systems; laser land levelling; improved shelter for livestock to minimize heat stress; integrated farming systems including poultry; have been developed and demonstrated to large number of farmers. Capacity building programs to farmers on climate resilient agriculture in these districts were also undertaken.

The Government is committed to supplements efforts of States by providing technical guidance and promotional financial assistance for management of floods in critical areas.
