O.I.H.

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

LOK SABHA
UNSTARRED QUESTION NO. 3466
TO BE ANSWERED ON 17TH DECEMBER, 2024

IMPACT OF CLIMATE CHANGE ON AGRICULTURE

3466. SHRI BRIJENDRA SINGH OLA:

Will the Minister of AGRICULTURE AND FARMERS WELFARE कृषि एवं किसान कल्याण मंत्री be pleased to state:

(a) whether the farmer's crops have been damaged due to cyclone Biparjoy, heatwaves and rising temperatures in the country;
(b) if so, the details of the assessment thereof, State-wise;
(c) whether there is continuous climate change in the country and if so, the details thereof;
(d) whether the Government is taking any measures to tackle the situation of climate change and strengthen agriculture; and
(e) if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE
कृषि एवं किसान कल्याण राज्य मंत्री (SHRI RAMNATH THAKUR)

(a) to (b): The data regarding damaged crops due to any disaster including cyclone and heatwaves is not maintained centrally. However, as per the information received from the State Government of Gujarat, 1,13,358 hectare of cropped area affected to the extent of 33% and above due to cyclone Biparjoy , 2023.

(c): India's Third National Communication submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in 2023 reported that India is experiencing a full range of climate change impacts.

(d) & (e): The Government set up National Action Plan on Climate Change (NAPCC) in 2008, which provide an overarching policy framework for climate action in the country. The NAPCC outlines a national strategy to enable the country to adapt to climate change and enhance ecological sustainability. One of the National Missions under NAPCC is the National Mission for Sustainable Agriculture (NMSA) which evolves and implements strategies to make agriculture more resilient to the changing climate.

The Indian Council of Agricultural Research (ICAR) has launched a flagship network project namely National Innovations in Climate Resilient Agriculture (NICRA). The project conducts studies on the impact of climate change on agriculture including crops, livestock, horticulture and fisheries and also develops and promotes climate resilient

technologies in agriculture for vulnerable areas of the country. The outputs of the project help the regions prone to extreme weather conditions like droughts, floods, frost, heat waves, etc. to cope with. During last 10 years (2014-2024), a total of 2593 varieties have been released by ICAR, out of these 2177 varieties have been found tolerant to one or more biotic and/or abiotic stresses. Risk and vulnerability assessment of agriculture to climate change has been carried out at district-level for 651 predominantly agricultural districts as per Intergovernmental Panel on Climate Change (IPCC) protocols. Out of 310 districts identified as vulnerable, 109 districts have been categorized as 'very high' and 201 districts as 'highly vulnerable. District Agriculture Contingency Plans (DACPs) for these 651 districts have also been prepared to address weather aberrations and recommending location specific climate resilient crops and varieties and management practices for use by the State Departments of Agriculture. For enhancing the resilience and adaptive capacity of farmers to climate variability, the Concept of "Climate Resilient Villages" (CRVs) has been initiated under NICRA. Location-specific climate resilient technologies have been demonstrated in 448 CRVs of 151 climatically vulnerable districts covering 28 states/UTs for adoption by farmers. ICAR through its NICRA project, creates awareness about impact of climate change in agriculture among farmers.

Capacity building programmes are being conducted to educate the farmers on various aspects of climate change for wider adoption of climate resilient technologies. Per Drop More Crop (PDMC) scheme improves water use efficiency through Micro Irrigation technologies i.e. drip and sprinkler irrigation systems. Rainfed Area Development (RAD) scheme focuses on Integrated Farming System (IFS) for enhancing productivity and minimizing risks associated with climatic variability. Mission for Integrated Development of Horticulture (MIDH), Agroforestry & National Bamboo Mission also aim to increase climate resilience in agriculture. Further, Pradhan Mantri Fasal Bima Yojana (PMFBY) along with weather index based Restructured Weather Based Crop Insurance Scheme (RWBCIS) provide a comprehensive insurance cover against failure of the crop to farmers suffering crop loss/damage arising out of unforeseen natural calamities.

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