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

LOK SABHA
UNSTARRED QUESTION NO. 1315
TO BE ANSWERED ON 3RD DECEMBER, 2024

CHALLENGES FACED BY FARMERS DUE TO CLIMATE CHANGE

1315. SHRI KODIKUNNIL SURESH:

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

(a) whether the Government has recognized the challenges faced by farmers in flood and drought prone regions due to unpredictable weather patterns and climate change;
(b) if so, the specific policies and programs that the Government has implemented or plans to implement to support these farmers in adapting to climate change and minimizing crop losses;
(c) whether the Government has conducted any assessments or studies to identify the most vulnerable regions and crops affected by climate variability;
(d) the expected timeline for the implementation of these climate-resilient farming initiatives, including any funding or resources allocated for their execution;
(e) whether the Government has engaged with agricultural scientists, environmental experts and local farming communities to develop practical solutions for climate resilience; and
(f) the anticipated long-term benefits of these policies for farmers including improved crop productivity, sustainable farming practices and enhanced food security in the face of climate change?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE

कृषि और किसान कल्याण राज्य मंत्री (SHRI BHAGIRATH CHOUDHARY)

(a) to (f): Yes, Indian agriculture is vulnerable to climate change and one or other part of the country is experiencing extreme weather eventsimpacting agriculture. Change in rainfall distribution is influencing agriculture through increased frequency of extreme weather events viz., drought and flood. The Government is implementing National Mission for Sustainable Agriculture (NMSA) to mitigate the impact of climate change on agricultural productivity and ensure sustainable practices. The NMSA is one of the

Missions within the National Action Plan on Climate Change (NAPCC) which aims to evolve and implement strategies to make Indian agriculture more resilient to the changing climate. Under NMSA, 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 is being implemented as a component under National Mission for Sustainable Agriculture (NMSA) from 2014-15 in the country. RAD focuses on Integrated Farming System (IFS) 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 (INM) through judicious use of chemical fertilizers including secondary and micro nutrients 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. In addition, the Government is promoting organic farming in the country since 2015-16 through the schemes of Paramparagat Krishi Vikas Yojana (PKVY) and Mission Organic Value Chain Development for North Eastern Region (MOVCDNER). PKVY is being implemented in all the States other-than North Eastern (NE) States across the country, whereas MOVCDNER scheme is being implemented exclusively in the NE States. Government is also promoting natural farming since 2019-2020 through a sub-scheme namely Bharatiya Prakritik Krishi Paddhati (BPKP) under Paramparagat Krishi VikasYojana (PKVY). The scheme 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 Indian Council of Agricultural Research (ICAR) under Ministry of Agriculture and Farmers Welfare, Government of India has launched a flagship network project namely National Innovations in Climate Resilient Agriculture (NICRA). ICAR is implementing the project in coordination with Central/State Agriculture Universities. The project aims to study the impact of climate change on agriculture including crops, livestock, horticulture and fisheries. The projectalso develops and promotes climate resilient technologies in agriculture and helps the districts and regions prone to extreme weather conditions like droughts, floods, frost, heat waves, etc. to cope with such extremes. The major achievements of ICAR are as follows:

- 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 is carried out at district-level for 651 predominantly agricultural districts as per Intergovernmental Panel on Climate Change (IPCC) protocols. A total of 109 districts are categorized as 'very high' and 201 districts as 'highly' vulnerable.

- District Agriculture Contingency Plans (DACPs) for these 651 districts have been prepared for weather aberrations like drought, floods, unseasonal rains and extreme weather events such as heat wave, cold wave, frost, hailstorm, cyclone etc. and recommending location specific climate resilient crops and varieties and management practices for use by the State departments of agriculture and farmers.

- Enhancing resilience and adaptive capacity of farmers to climate variability, the Concept of "Climate Resilient Villages" (CRVs) has been initiated under NICRA.

- Capacity building programmes are being conducted to educate the farmers on various aspects of climate change for wider adoption of climate resilient technologies.The Climate Resilient Agriculture (CRA) Technology is implemented in 448 CRVs across 151 districts of 28 states/UTs.

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