

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

LOK SABHA
UNSTARRED QUESTION NO. 715
TO BE ANSWERED ON 25th JULY, 2023

EFFECT OF CLIMATE CHANGE ON FARMERS

715. SHRI T.N. PRATHAPAN:
ADV. ADOOR PRAKASH:
SHRI ANTO ANTONY:
DR. A. CHELLKUMAR:
SHRI K. MURALEEDHARAN:
SHRI VINCENT H. PALA:
SHRI SAPTAGIRI SANKAR ULAKA:
SHRI PRADYUT BORDOLOI:

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

- (a) whether the Government has any data or has conducted any research linking climate change induced weather events and farmer suicides in the country and if so, the details thereof;
- (b) whether the Government has taken any measures to build resilience amongst farmers to abnormal weather conditions particularly amongst small-scale farmers;
- (c) the steps taken by the Government to ensure agricultural productivity in light of the Indian Council of Agricultural Research (ICAR) projected reductions in crop yields due to change in temperature and rainfall in the coming years;
- (d) the steps taken by the Government to meet the goals set in the Adaptation agenda at the recently concluded COP27 of increasing yield by 17% while reducing farm level greenhouse gas emissions by 21% and
- (e) Whether any specific steps have been taken to promote flood resilient agriculture in climate vulnerable regions such as the North-East and if so, the details thereof?

ANSWER

MINISTER OF AGRICULTURE AND FARMERS WELFARE

कृषि और किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

- (a) Specific study or research on linking climate change induced weather events and farmer suicides has not been carried out.

To protect the farmers from such events, Government has introduced flagship yield based Pradhan Mantri Fasal Bima Yojana (PMFBY) along with weather index based Restructured Weather Based Crop Insurance Scheme (RWBCIS) from Kharif 2016. The scheme aims at supporting sustainable production in agriculture sector by way of providing financial support to farmers suffering crop loss/damage arising out of unforeseen natural calamities, adverse weather incidence and to help in stabilize the income of farmers to ensure their continuance in farming. Comprehensive risk insurance to farmers is provided against unpreventable natural calamities such as drought, dry-spells, flood, hailstorm, inundation etc. under the scheme for entire crop cycle including pre-sowing to post-harvest losses. Since inception of the scheme in 2016-17 to 2022-23, 4,814 lakh farmer applications have been enrolled over an area of 3,479 lakh ha. for a sum insured of Rs. 14,37,645 crore. Claims of Rs. 1,35,248 crore have already been paid to 1,346 lakh farmer applications which includes partial claims for Kharif-22 also (As on 30-04-2023).

(b) & (c) The Government has taken several measures to build resilience amongst farmers to abnormal weather conditions including amongst small-scale farmers. To protect the farmers from abnormal weather conditions ICAR in collaboration with India Meteorological Department (IMD) is issuing Agromet advisories twice a week (Tuesday and Friday) to around 6 crore farmers of the country through Gramin Krishi Mausam Seva program. The Central Government has set up National Action Plan on Climate Change (NAPCC) which provides an overarching policy framework for climate action in the country. National Mission for Sustainable Agriculture (NMSA) is one of the Missions within the National Action Plan on Climate Change (NAPCC). The mission aims to evolve and implement strategies to make Indian agriculture more resilient to the changing climate. NMSA was approved for three major components i.e. Rainfed Area Development (RAD); On Farm Water Management (OFWM); and Soil Health Management (SHM). Subsequently, four new programmes were introduced namely Soil Health Card (SHC), Paramparagat Krishi Vikas Yojana (PKVY), Mission Organic Value Chain Development in North Eastern Region (MOVCDNER) and Per Drop More Crop. In addition to aforementioned programmes under NMSA, restructured National Bamboo Mission (NBM) was launched in April 2018.

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) to promote climate resilient agricultural practices. NICRA project is a multi-sectoral, multi-location program carrying

the major mandate of addressing climate change and variability, and addressing range of stake holders needs across the country. Research, demonstration and capacity building are the three major components, besides providing policy briefs on several aspects related to agriculture and climate change.

The salient achievements of ICAR on climate resilient agriculture include the following;

- In total, 1888 climate resilient crop varieties including 891 of cereals, 319 of oilseeds, 338 of pulses, 103 of forage crops, 182 of fibre crops, 45 of sugar crops, and 10 of other crops have been developed.
- Participatory technology development of climate resilient practices has been undertaken involving farmers in risk assessment, demonstration and adaptation techniques in 151 clusters covering 454 villages, with a footprint of 2.13 lakh households, on 2.36 lakh hectares of land.
- 68 climate resilient technologies have been demonstrated in 454 villages on 15857 farmers' fields during 2014-23.
- 88 biocontrol agents, 31 biopesticides and 41 Biofertilizers have been documented and circulated. Drip fertigation schedules for 35 crops and cropping systems for achieving higher water and nutrient use efficiency have been standardized. Also District Agriculture Contingency Plans (DACPs) for 650 Districts have been developed.

(d) In the COP27 held at Egypt during 6th -18th November, 2022, it was decided to establish four-year joint work on implementation of climate action on agriculture and food security. The detailed work plan on the proposed elements is to be finalised by the COP Secretariat. However, no goals were set to decrease greenhouse gas emissions from agricultural sector or increasing agricultural yield.

(e) As part of the Technology Demonstration Component (TDC) of National Innovations in Climate Resilient Agriculture (NICRA), technologies which can minimise the impact of flood have been demonstrated in four districts of Assam, viz., Dhubri, Dhemaji, Darrang and Nalbari. Flood tolerant rice cultivars and short duration toria, improved planting techniques to minimise the impact of water logging, improved breeds of animals, elevated housing systems for small ruminants and poultry etc. have been identified as promising technologies for these Districts.
