

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

LOK SABHA
UNSTARRED QUESTION NO. 613
TO BE ANSWERED ON 6TH FEBRUARY, 2024

CLIMATE RESILIENT AGRICULTURE

613. SHRIMATI SANGEETA AZAD:

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

- (a) the specific policies that the Government has implemented to promote climate-resilient agriculture in Azamgarh, Uttar Pradesh as well as rest of the country;
- (b) the manner in which the Government support farmers in adopting sustainable and climate-smart farming practices;
- (c) the details of funding allocated for research and development in climate-resilient agriculture;
- (d) the measures that are in place to educate and train farmers on climate-smart techniques and technologies; and
- (e) the manner in which the Government plan to address water management issues in agriculture, considering changing climate patterns?

ANSWER

MINISTER OF AGRICULTURE AND FARMERS WELFARE
कृषि और किसान कल्याण मंत्री (SHRI ARJUN MUNDA)

(a) to (e): The Government is taking several steps to promote climate resilient farming in the country including the State of Uttar Pradesh. National Action Plan on Climate Change (NAPCC) was launched by the Government in 2008 which provides an overarching policy framework for climate action in the country. The National Mission for Sustainable Agriculture (NMSA) being implemented by Ministry of Agriculture and Farmers Welfare 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, new programmes such as namely Soil Health Card (SHC), Paramparagat Krishi Vikas Yojana (PKVY), Mission Organic Value Chain Development in North Eastern Region (MOVCDNER), Per Drop More Crop, National Bamboo Mission (NBM) etc. were also included.

Under NMSA, Per Drop More Crop (PDMC) scheme promotes water use efficiency at the farm level through Micro Irrigation technologies i.e. drip and sprinkler irrigation systems. Till date an area of 83.46 lakh hectare has been covered under Micro irrigation through the PDMC scheme from the year 2015-16. 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. So far an area of 7.13 lakh hectares has been covered under RAD programme from the year 2014-15. Soil Health Card (SHC) / Soil Health Management (SHM) scheme is operational through the State Governments under National Project on Management of Soil Health & Fertility. Now, this scheme has been merged as Soil Health Component of Rashtriya Krishi Vikas Yojana (RKVY) from the year 2022-23. So far 22.71 crore grid based soil health cards have been distributed to farmers under the scheme. Government is promoting Natural Farming since 2019-2020 through Bharatiya Prakritik Krishi Paddhati (BPKP) programme under Paramparagat Krishi Vikas Yojana (PKVY). The scheme mainly emphasizes on exclusion of all synthetic chemical inputs and promotes on-farm biomass recycling with major stress on biomass mulching, use of cow dung-urine formulations and other plant based preparations. Rs. 70.13 Crore has been released for natural farming in 8 states under BPKP across the country. For promoting organic farming, under Mission Organic Value Chain Development in North East Region (MOVCDNER), 379 Farmer Producer Companies have been formed and covering an area of 1.73 lakh ha. The restructured National Bamboo Mission (NBM) was launched during 2018-19 as a Centrally Sponsored Scheme (CSS). During the year 2022-23 the NBM has been merged with Mission for Integrated Development of Horticulture (MIDH) scheme. MIDH is being implemented in which an area of 11.26 lakh ha have been covered. NBM presently implemented in 23 States. So far, an area of 46617 ha bamboo plantation has been achieved under Restructured NBM. Specifically, in Azamgarh District of Uttar Pradesh, under Paramparagat Krishi Vikas Yojana (PKVY), so far, 500 Ha area have been covered so far comprising 750 farmers in the clusters. Moreover, the State sponsored Uttar Pradesh Millets Revival Programme (UPMRP) Programme is also being implemented in district Azamgarh.

To protect the farmers from climate hazards, 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.

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 includes the following;

- i. 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.
- ii. 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.
- iii. 68 climate resilient technologies have been demonstrated in 454 villages on 15857 farmers' fields during 2014-23.
- iv. 88 biocontrol agents, 31 biopesticides and 41 Biofertilizers have been documented and circulated. Also District Agriculture Contingency Plans (DACPs) for 650 Districts have been developed.
- v. 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 details of budget earmarked for research and development in climate change during the past 5 years under NICRA project is given below:

Year	Budget (Rs. In Crores)
2019-20	40.58
2020-21	44.74
2021-22	46.06
2022-23	40.45
2023-24	48.15
Total	219.98

To educate and train farmers on climate-smart techniques and technologies large scale demonstrations of climate resilient varieties in the farmers' fields is being taken up through KVKs in 151 vulnerable districts in the country which enable wide-scale adoption of these varieties by farmers. During the past twelve years, 21,083 numbers of capacity building programs were conducted throughout the country under NICRA project to educate stakeholders on various aspects of climate change and resilient technologies, covering 5,98,529 different stakeholders including farmers so as to enable wider adoption of climate resilient technologies.
