

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

**LOK SABHA**  
**UNSTARRED QUESTION NO. 3746**  
TO BE ANSWERED ON THE 17<sup>TH</sup> MARCH, 2020

**IMPACT OF CLIMATE CHANGE ON FARMERS**

3746. SHRIMATI SARMISTHA SETHI:

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

- (a) whether the Government is aware of the impact of climate change on farmers in India; and
- (b) if so, whether the Government intends to bring out any action plan to protect our farmers from the impact of climate change, the details thereof?

**ANSWER**

MINISTER OF AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

(a) & (b): The country has initiated action to address the problems likely to arise due to climate change. These efforts have provided valuable inputs in terms of the regional and national level impacts of climate variability and climate change on crops, horticulture, livestock and fishery. Through its programmes and schemes, focus on climate resilient agriculture, appropriate adaptation strategies have been devised for ensuring food security, enhanced livelihood opportunities and economic stability.

National Mission for Sustainable Agriculture (NMSA), one of the Missions under National Action Plan for Climate Change (NAPCC), includes programmatic interventions like Soil Health Card (SHC), Paramparagat Krishi Vikas Yojana (PKVY), Mission Organic Value Chain Development for North Eastern Region (MOVCDNER), Rainfed Area Development (RAD), National Bamboo Mission (NBM) and Sub-mission on Agro Forestry (SMAF). These and other programmes including Prime Minister Krishi Sinchayee Yojana (PMKSY) are ensuring judicious use of natural resources. Assistance is provided under National Food Security Mission (NFSM) for inter alia stress tolerant/climate resilient varieties of food grains.

Under NMSA following ten deliverables are monitored

i) Area under organic farming, ii) Production of Bio-fertilizers, iii) Precision Irrigation, iv) SRI/ Direct Seeded Rice from Transplantation, v) Crop diversification, vi) Additional Area under plantation in Arable land, vii) Climate Resilient Varieties (CRV) Identified/ Released, viii a) Identification of genotypes of crops with enhanced CO<sub>2</sub> fixation potential and less water consumption & Nutrients, viii b) Climate Resilient genotypes with greater adaptation to drought, flood, salinity and high temperature, ix) Coverage of milch animals under ration balancing programme and x) Establishment of bypass protein feed making unit.

Indian Council of Agricultural Research (ICAR) has developed 45 models for climate resilient Integrated Farming Systems (IFS) which are replicated in Krishi Vigyan Kendras (KVKs) for demonstration and extended through the Rainfed Area Development (RAD) programme. Climate resilient villages have been developed, one in each of 151 districts under the project National Innovations in Climate Resilient Agriculture (NICRA). This follows a multi-pronged strategy encompassing strategic research on adaptation, mitigation and demonstration of technologies on farmers' fields to create awareness, aiming mainly to evolve crop varieties tolerant to climatic stresses like floods, droughts, frost, inundation due to cyclones and heat waves. An atlas on vulnerability of Indian agriculture to climate change has been prepared by Central Research Institute of Dryland Agriculture (CRIDA), Hyderabad. District Agriculture Contingency Plans for 648 districts have been prepared for managing weather aberrations for sustainable agriculture.

Due to preparedness and introduction of climate resilient varieties, total food grain has increased from 208.60 Million Tonnes in 2005-06 to 284.95 Million Tonnes in 2018-19 (4<sup>th</sup> Adv. Est.) and horticulture production from 116.9 Million Tonnes in 2004- 05 to 313.85 Million Tonnes in 2018-19 (3<sup>rd</sup> Adv. Est.).

\*\*\*\*\*