

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION

RAJYA SABHA
UNSTARRED QUESTION NO. 1550
TO BE ANSWERED ON 15/12/2023

CLIMATE RESILIENT AGRICULTURE FOR SMALL LAND-OWNERS

1550. SMT. PRIYANKA CHATURVEDI:

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

- (a) whether Government has made any assessment on the impact of climate change on small land-owners, if so, the details thereof;
- (b) whether Government has any specific schemes to support small land-owners to shift to climate resilient agriculture, if so, the details thereof;
- (c) whether Government has any specific definition of 'climate resilient agriculture', if so, the definition thereof; and
- (d) whether Government has any comprehensive plan to support climate resilient agriculture among small land-owners, if so, the details thereof?

ANSWER

THE MINISTER OF AGRICULTURE & FARMERS WELFARE
(SHRI ARJUN MUNDA)

- (a) National Innovations on Climate Resilient Agriculture (NICRA), a network project of the Indian Council of Agricultural Research (ICAR) studied the impact of climate change on agriculture and farmers including small land-owners. The simulation modelling studies indicate that in the absence of adaptation measures, climate change projections are likely to reduce irrigated rice yields by 3%, rainfed rice yields by 7 to 28%, wheat yield by 3.2-5.3%, maize yield by 9-10% and increased the soybean yield by 2.5-5.5% for the period 2020-2039. Extreme events like drought affect the food and nutrient consumption, increase incident of poverty, encourage outmigration, increase indebtedness and reduce farmers' capacity to adapt to climate change.
- (b) Government implements National Mission for Sustainable Agriculture (NMSA) to deal with the impact of climate change on agriculture and farmers including small land-owners. NMSA has three major components i.e. Rainfed Area Development (RAD); On Farm Water Management (OFWM); and Soil Health Management (SHM). Subsequently, new programmes 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. are also included.
- (c) Climate resilience is a fundamental concept of climate risk management. According to FAO (2021), climate resilient agriculture is defined as "The ability of an agricultural system to anticipate and prepare for, as well as adapt to, absorb and recover from the impacts of changes in climate and extreme weather".
- (d) The various schemes of Government of India listed in part (b) support climate resilient agriculture among small land owners. Further, Government has introduced flagship yield based Pradhan Mantri Fasal Bima Yojana (PMFBY) along with Restructured Weather Based Crop Insurance Scheme (RWBCIS) from Kharif 2016 to protect the farmers including small land-owners from climate hazards. The scheme aims at supporting sustainable production in agriculture sector by way of providing financial support to farmers including small land-owners suffering crop loss/damage arising out of unforeseen natural calamities, adverse weather incidence and to stabilize the income of farmers to ensure their continuance in farming.
