GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE & FARMERS' WELFARE
DEPARTMENT OF AGRICULTURE & FARMERS' WELFARE

LOK SABHA
UNSTARRED QUESTION NO. 1815
TO BE ANSWERED ON THE 10TH February, 2026

SMART AGRO-FOOD SYSTEMS AND SUSTAINABLE PRODUCTION PRACTICES

1815. Smt. Bharti Pardhi:
Shri Naresh Ganpat Mhaske:
Dr. Shrikant Eknath Shinde:
Shri Shrirang Appa Chandu Barne:
Shri Ravindra Dattaram Waikar:

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

(a) whether the Government has identified key agronomic priorities such as climate-resilient, carbon-neutral and regenerative agriculture, if so, the details thereof and if not, the reasons therefor;
(b) the major components of smart agro-food systems and sustainable production practices therein;
(c) whether the Government proposes to integrate existing schemes like NMSA, PMKSY, Soil Health Card, Digital Agriculture Mission and Natural Farming with these agronomic priorities, if so, the details thereof and if not, the reasons therefor;
(d) the steps being taken to strengthen research, innovation and capacity-building of scientists, students and farmers based on the identified issues; and
(e) whether these agronomic focus areas are expected to guide future agricultural policy-making, if so, the details thereof and if not, the reasons for the same?

ANSWER

MINISTER OF STATE OF AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण राज्य मंत्री (SHRI RAMNATH THAKUR)

(a) & (b): Government has identified key agronomic priorities including climate-resilient, carbon-neutral and regenerative agriculture to address the challenges of climate change, resource degradation and sustainable food security. Several schemes have been initiated under National Mission for Sustainable Agriculture, to promote sustainable agriculture practices. Per Drop More Crop scheme increases water use efficiency at the farm level through micro irrigation technologies i.e. drip and sprinkler irrigation. Rainfed Area Development focuses on Integrated Farming System for enhancing productivity and minimizing risks associated with climatic variability. The Soil Health & Fertility scheme promotes integrated nutrient management through judicious use of chemical fertilizers. Mission for Integrated Development of Horticulture, Agroforestry & National Bamboo Mission also promote climate resilience. Pradhan Mantri Fasal Bima Yojana along with weather index based Restructured Weather Based Crop Insurance Scheme provides a comprehensive insurance cover against crop failure to farmers suffering crop loss/damage due to natural calamities.

Indian Council of Agricultural Research (ICAR) is implementing a project- National Innovations in Climate Resilient Agriculture (NICRA) that studies the impact of climate change on agriculture, conducts district level risk & vulnerability assessment due to climate change. Under NICRA, 310 districts were identified as climatically vulnerable out of which 109 districts have been categorized as 'very high' and 201 districts as 'highly' vulnerable. For enhancing the resilience and adaptive capacity of farmers, location-specific climate resilient technologies (such as system of rice intensification, aerobic rice, direct seeding of rice, zero till wheat sowing etc) have been demonstrated under the project through Krishi Vigyan Kendras in 151 districts covering 448 Climate Resilient Villages. Capacity building for village level seed banks and community nurseries is undertaken under NICRA to enable availability of seed. Drought and flood tolerant climate-resilient varieties of rice, wheat, soybean, mustard, chickpea, sorghum, gram, and foxtail millet were demonstrated in several NICRA villages. Besides, training programmes are conducted under Agricultural Technology Management Agency (ATMA) on various issues of agricultural practices. ICAR has released 2900 varieties during last 10 years (2014-2024) of which 2661 varieties are tolerant to one or more biotic and/or abiotic stresses.

(c): Government is progressively aligning and converging existing agricultural schemes with broader agronomic priorities, including digital transformation, soil health, water use efficiency, organic/natural farming and other sustainable farming practices. Such merger will ensure a more integrated and outcome-oriented approach, improve convergence, reduce duplication of efforts, optimize resource utilization, and strengthen implementation efficiency.

(d) & (e): Indian Council of Agricultural Research has established 731 KVKs with the mandate of technology assessment, demonstration and capacity development. The KVKs organize capacity-building programmes for the farmers on new technologies of agriculture and allied sectors including those related to climate-resilient and regenerative agriculture. Government is aligning agricultural policies with identified agronomic priorities such as climate-resilient agriculture, sustainable and regenerative farming practices, soil and water conservation, resource-use efficiency, diversification of cropping systems, and reduction of environmental footprints.

*****