

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

**LOK SABHA**  
**UNSTARRED QUESTION NO. 4579**  
TO BE ANSWERED ON THE 28<sup>TH</sup> MARCH, 2023

**GREEN AGRICULTURE**

4579. SHRI KIRTI VARDHAN SINGH:

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

- (a) whether the Government is contemplating to promote Green Agriculture;
- (b) if so, the various steps taken by the Government to promote Green Agriculture; and
- (c) whether the Government is planning to introduce PM-PRANAM so as to promote alternative fertilisers and if so, the details thereof?

**ANSWER**

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE  
कृषि एवं किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

(a) & (b): Government of India is already promoting green agriculture by way of green/sustainable agricultural and good agriculture practices with environment concern. It is implementing National Mission for Sustainable Agriculture (NMSA) which is one of the National Missions under National Action Plan on Climate Change (NAPCC). NMSA aims to evolve and implement strategies to make Indian agriculture more resilient to the changing climate. The various components being implemented in this regard are Rainfed Area Development (RAD), On Farm Water Management (OFWM), Soil Health Management (SHM), Soil Health Card (SHC), Paramparagat Krishi Vikas Yojana (PKVY), Mission Organic Value Chain Development in North Eastern Region (MOVCDNER), Submission on Agroforestry (SMAF) and Per Drop More Crop (PDMC) under Pradhan Mantri Krishi Sinhchayee Yojana (PMKSY). Rainfed Area Development under NMSA focuses on Integrated Farming System (IFS) for enhancing productivity and minimizing risks associated with climatic variability. Under this system, crops/cropping system is integrated with activities like horticulture, livestock, fishery, agro-forestry, apiculture etc.

To meet the challenges of sustaining domestic food production in the face of changing climate, the Indian Council of Agricultural Research (ICAR), Ministry of Agriculture and Farmers Welfare, Government of India has launched a flagship network project called National Innovations in Climate Resilient Agriculture (NICRA). The project aims to develop

and promote climate resilient technologies in agriculture to address vulnerable areas of the country and to help the districts and regions prone to extreme weather conditions like droughts, floods, frost, heat waves, etc. to cope with such extremes. Short term and long-term research programs with a national perspective have been taken up involving adaptation and mitigation covering crops, horticulture, livestock, fisheries and poultry. The main thrust areas covered are (i) identifying most vulnerable districts/regions, (ii) evolving crop varieties and management practices for adaptation and mitigation, (iii) assessing climate change impacts on livestock, fisheries and poultry and identifying adaptation strategies.

NICRA project has developed several resilient technologies to mitigate climate change. Climate resilient technologies viz., resilient varieties in different crops tolerant to climatic stresses, resilient intercropping systems, conservation agriculture, crop diversification from paddy to other alternate crops like pulses, oilseeds, agroforestry systems, zero till drill sowing of wheat to escape terminal heat stress, alternate methods of rice cultivation (system of rice intensification, aerobic rice, direct seeded rice), green manuring, integrated farming systems, integrated nutrient management, integrated pest management, organic farming, site specific nutrient management, in-situ moisture conservation, protective irrigation from harvested rainwater in farm pond, micro irrigation method (drip and sprinkler) etc. have been developed and evaluated in farmers' fields for their adoption.

ICAR is recommending soil test based balanced and integrated nutrient management practice through conjunctive use of both inorganic and organic sources (compost, bio fertilizers, green manure etc.), split application of nitrogen and placement of other fertilizers, use of slow releasing fertilizers, nitrification inhibitors and use of neem coated urea etc. to reduce the excessive use of fertilizers and pollution of soil, water and environment. The ICAR also imparts training, organises FLDs to educate farmers on all these aspects.

(c): Government has announced "PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth" (PM-PRANAM) scheme in Budget 2023-24 with the objective to incentivise the States and UTs to promote usage of alternative fertilizers and balanced use of chemical fertilizers.

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