

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

LOK SABHA
UNSTARRED QUESTION NO. 1152
TO BE ANSWERED ON 30TH JULY, 2024

EFFECT OF RISING TEMPERATURES ON AGRICULTURAL PRODUCTIVITY

1152. SHRI ADHIKARI DEEPAK DEV:

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

- (a) the manner in which the rising temperatures and changing precipitation patterns is affecting the agricultural productivity in the country; and
- (b) the details of the adaptive measures being taken by the Government to address the above issue?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE
कृषि और किसान कल्याण राज्य मंत्री (SHRI BHAGIRATH CHOUDHARY)

(a) Integrated computer simulation modelling studies revealed that, in the absence of adaptation measures, climate change projections with respect to changes in temperature and precipitation are likely to reduce rainfed rice yields by 20% in 2050 and 47% in 2080 scenarios while, irrigated rice yields by 3.5% in 2050 and 5% in 2080 scenarios, wheat yield by 19.3% in 2050 and 40% in 2080 scenarios, kharif maize yields by 18 to 23% in 2050 and 2080 scenarios. Soybean yields are projected to increase by 3-10% in 2030 and 14% in 2080 scenarios.

(b) To mitigate weather related challenges in the country, the Government of India implements National Mission for Sustainable Agriculture (NMSA). NMSA consists of three major components i.e. Rainfed Area Development (RAD); On Farm Water Management (OFWM); and Soil Health Management (SHM).

RAD focuses on Integrated Farming System (IFS) for enhanced productivity and reduced risks associated with climatic variability and also to mitigate the impacts of extreme weather events like drought and flood.

Government of India also implements Centrally Sponsored Scheme of Per Drop More Crop (PDMC) for enhanced water-use efficiency at farm level through Micro Irrigation Systems.

Soil Health Management (SHM) focuses on improvement in soil health for climate resiliency.

ICAR through NICRA promotes climate resilient technologies in agriculture which address vulnerable areas of the country and the outputs of the project help the districts and regions prone to extreme weather conditions like droughts, floods, frost, heat waves, etc.
