

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

LOK SABHA
UNSTARRED QUESTION NO. 5244
TO BE ANSWERED ON 27/03/2018

EFFECT OF CLIMATE CHANGE ON CROPS AND ANIMALS

5244. SHRI SHRIRANG APPA BARNE:
SHRI ADHALRAO PATIL SHIVAJIRAO:
SHRI VINAYAK BHAURAO RAUT:
SHRI DHARMENDRA YADAV:

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

- (a) whether the Government is aware of the challenges of unknown biotic stress in crops/animals due to climate change and if so, the details thereof;
- (b) whether the Government has taken up the matter with the State Governments for effective cooperation to lessen the effect of climate change on crops/animals and if so, the details thereof and the response of the State Governments thereto;
- (c) whether the Government has extended funds to States for this purpose and if so, the details thereof; and
- (d) the steps taken by the Government for developing biotic stress resilient crops and breeding animals using indigenous as well as wild resources and the outcome thereof?

A N S W E R

MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE
कृषि और किसान कल्याण मंत्रालय में राज्य मंत्री
(SHRI PARSHOTTAM RUPALA)

- (a) Yes, Madam. Although the effects of climate change on emergence of biotic stresses are hard to predict. Effect of climate change on emergence of new pests, shift of minor pests as major ones, increasing aggressiveness, altering distribution of hosts, pests and diseases are under investigation.

For the scientific estimation and handling consequences of climate change on crops and animals effectively, network national projects are ongoing in most of the States.

(b) The causative climate driven factors and climate variability in their incidence is under investigation through National Innovations in Climate Resilient Agriculture (NICRA) launched by ICAR since 2011 in a network mode to address challenges of unknown biotic stress through Real Time Pest Dynamics (RTPD) program having exploratory surveys and real time ICT based surveillance.

In addition to four specifically Plant Protection ICAR Institutes viz. National Centre for Integrated Pest Management, National Bureau of Agriculturally Important Microbes, National Bureau of Agriculturally Important Insects and National Institute of Biotic Stress Management; Crop Science, Horticulture Science, Fisheries, Poultry and Veterinary Institutes, various all India project (AICRP) centres on specific field crops, horticultural crops, poultry and animals located at different State Agricultural Universities /States/ ICAR Institutes are the partners of the program.

(c) Yes, Madam. Government has extended funds to states for the projects/ programmes exclusively dealing with the challenges of unknown biotic stresses (pests and diseases) that includes the followings:-

1. National Innovations in Climate Resilient Agriculture NICRA Project with an annual budget of 50 crores and 73% of the budget shared with 12 States.
2. Central Integrated Pest Management Centres (CIPMC) (with 35 Centres in 29 States)
3. Crop Pest surveillance and advisory project (CROPSAP) with a budget of 3.74 lakhs
4. Consortia Research Platform on molecular breeding for improvement of tolerance to biotic and abiotic stresses, yield and quality traits in crops (chickpea) – 28.80 lakhs.
5. Studies on climate volatility and its impact on pests of crop plants at micro level in varied agro-ecosystem of Uttar Pradesh - 24.2 lakhs.

(d) India has effectively managed many evolving pest and disease exigencies which otherwise could have resulted in national calamities. A total of 242 biotic stress resistant varieties of different crops have been released which include rice (34), wheat (23), maize (18), sorghum (4), pearl millet (20), other millets (9), pulses (37), oilseeds (27), forage crops (20), cotton (21), other fibre crops (9) and sugarcane (20). Use of genetic resources, modern technologies, including biotechnology are being applied to develop resilient crops/ animals.
