

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

LOK SABHA
UNSTARRED QUESTION NO. 2307
TO BE ANSWERED ON 03/12/2019

EFFECTS OF CLIMATE CHANGE ON THE AGRICULTURE SECTOR

2307. SHRI UTTAM KUMAR REDDY NALAMADA:

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

- (a) whether any studies have been conducted to understand the effects of climate change on the agriculture sector in India and if so, the details thereof;
- (b) if not, the reasons therefor;
- (c) whether any research has been commissioned by the Government to link the predictions regarding climate change with studies of agricultural production systems in the country to suggest suitable options for sustaining agricultural production in future and if so, the details thereof;
- (d) whether any programmes have been implemented to provide farmers with the relevant information and advise them on farming practices that will help them account for changing climate and weather patterns; and
- (e) if so, the details thereof?

A N S W E R

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

- (a) Yes, Sir. The Indian Council of Agricultural Research (ICAR) of the Department of Agricultural Research and Education, Ministry of Agriculture and Farmers' Welfare has initiated a National Programme called "National Innovations in Climate Resilient Agriculture (NICRA)" during the year 2011 to enhance the resilience of Indian agriculture including livestock and fisheries to climatic variability and climate change through development and application of improved production and risk management technologies.
- (b) Does not arise in view of (a) above.
- (c) Yes, Sir. Under National Innovations in Climate Resilient Agriculture (NICRA), efforts have been made to identify / develop drought /high temperature/ flood tolerant varieties suitable to vulnerable agro-ecologies. Similarly, resource conservation technologies have also been evaluated to cope with adverse weather conditions.

(d) & (e): Yes, Sir. As part of the Technology Demonstration Component (TDC) of the NICRA, demonstration of location specific climate resilient technologies has been taken up to enable farmers to cope with the current climatic variability and to enhance their adaptive capacity. The demonstrations are taken up in farmers' fields in 151 climatically vulnerable districts of the country by taking one representative village from each of the district.

During 2018-19, 663 demonstrations were conducted on *in-situ* moisture conservation and *ex-situ* water harvesting structures. During 2018-19 in 121 KVKs, 2332 training programmes were conducted benefitting 39104 farmers for creating awareness on climate change and sustainable crop production under variable climate.

In collaboration with Indian Meteorological Department (IMD), ICAR-Central Research Institute for Dryland Agriculture is involved in issuing agromet advisories twice in a week to give forewarning about the adverse weather conditions.
