

ICAR-Central Research Institute for Dryland Agriculture

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Date: 12.07.2016

Answer to the Rajya Sabha Q Dy. No. S218, U159

- a) Whether the Government has conducted any study to assist the impact of climate change on different systems including agriculture in the country;**

Yes

- b) If so, the details thereof;**

To understand the impact of climate change on agriculture in the country, a network project was initiated by Indian Council of Agriculture Research (ICAR) during X Plan which was continued during XI Plan. This project helped in understanding the impacts of global warming on productivity of rice, wheat and other crops, livestock and fisheries.

Recognizing that the climate change is likely to have a major impact on agricultural and allied sector, the Indian Council of Agricultural Research has initiated a mega network project, National Innovations in Climate Resilient Agriculture (NICRA) during 2010-11. This scheme will continue during the XII plan with a multi-pronged strategy encompassing strategic research on adaptation and mitigation, demonstration of technologies on farmers' fields and create awareness among farmers and other stake holders. The strategic research aims mainly to evolve crop varieties tolerant to climatic stresses like floods, droughts, frost, inundation due to cyclones and heat waves. Standardization of management practices to reduce emission of greenhouse gases is also envisaged. Mitigation of heat stress on livestock through shelter management and feed supplements is also targeted. To accomplish these tasks modern infrastructure facilities are being setup at premier research institutes like IARI, CRIDA, IIHR, NDRI, CMFRI etc.

Simultaneously, another component on technology demonstration on farmers fields has been initiated in 100 vulnerable districts of the country. This program will further expanded to 200 districts in XII Plan. The main components to be included in the demonstrations are short duration drought and flood tolerant varieties, micro irrigation systems to conserve irrigation water, trash burning to minimize frost damage, water harvesting for supplementary irrigation and drought proofing, and custom hiring centers for timely farm operations, etc. During the XI plan about one lakh farmers are being covered through this extensive program. The ICAR in collaboration with SAUs are also conducting climate change awareness programmes to farmers across the country to instill knowledge on better management of natural resources and conserving the ecosystem through efficient soil, water and fertilizer utilization and thereby minimizing the greenhouse gas emission. This program will be continued during XII plan.

- c) Whether any action plan has been chalked out by Government to combat ill effects of climate change in coordination with global agencies; and**

Yes

d) If so, the salient features of such action plan?

National Action Plan on Climate Change (NAPCC) of India is aimed at assessing and developing strategies to combat climate change related effects in India, envisioned creation of eight missions. Each of these missions represents multi-prolonged, long-term, and integrated strategies for achieving key goals in the context of climate change.

It focuses on eight missions, which are as follows

1. National Solar Mission
2. National Mission for Enhanced Energy Efficiency
3. National Mission on Sustainable Habitat
4. National Water Mission
5. National Mission for Sustaining the Himalayan Ecosystem
6. Green India Mission
7. National Mission for Sustainable Agriculture
8. National Mission on Strategic Knowledge for Climate Change

National Mission on Sustainable Agriculture

The thrust areas to be addressed under this Mission are dryland agriculture, access to information, biotechnology and risk management.

Key focus areas of the mission are:

- Strategic Planning at Agro Climatic Zone Level
- Customized interventions to enhance productivity
- Easy access to Information and Institutional Support
- Linking Laboratory to Land
- Dry land Farming