

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

**LOK SABHA**  
**UNSTARRED QUESTION NO. 2385**  
TO BE ANSWERED ON 6<sup>TH</sup> AUGUST, 2024

**NATIONAL INNOVATIONS IN CLIMATE RESILIENT AGRICULTURE**

2385. SHRI P V MIDHUN REDDY:

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

- (a) the salient features of National Innovations in Climate Resilient Agriculture' (NICRA);
- (b) the achievements of flagship network project in the last three years;
- (c) the budget allocated and utilised under NICRA project during the last three years, year-wise;
- (d) whether there was less utilization of funds during the said period, if so, the details thereof; and
- (e) the steps taken for optimum utilization of the allocated funds?

**ANSWER**

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

- (a) Indian Council of Agricultural Research (ICAR), Ministry of Agriculture and Farmers Welfare, Government of India launched a flagship network project namely National Innovations in Climate Resilient Agriculture (NICRA) in 2011. The project aims to develop and promote climate resilient agriculture to address vulnerable areas of the country and help the districts and regions to cope up with extreme weather conditions like droughts, floods, frost, heat waves, etc. The project has three components viz. strategic research, technology demonstration and capacity building. The main thrust areas covered are (i) identification of the most vulnerable districts/regions, (ii) development of crop varieties and management practices for adaptation & mitigation and (iii) assessment of climate change impacts on livestock, fisheries and poultry vis-a-vis identification of adaptation strategies.
- (b) Major Achievements of this flagship project during the last three years are:

- Assessed risk and vulnerability of 573 predominantly agriculture districts as per Intergovernmental Panel on Climate Change (IPCC) protocol. A total of 109 districts are categorised as 'very highly' and 201 districts as 'highly' vulnerable.
- Developed and released 10 climate resilient crop varieties (7 in rice, 1 in wheat and 2 in tomato) tolerant to drought, salinity and high temperatures.
- Identified 6 brinjal rootstocks for waterlogging tolerance and 5 brinjal rootstocks for water stress conditions.
- Developed Pusa Sanjeevni, a microbial formulation with 6 months shelf life for abiotic stress tolerance.
- Developed three climate smart implements viz., pneumatic seed planter cum dibbler, rotary tiller assisted broad bed former cum seeder, and liquid-fertilizer applicator.
- Developed Composite Drought Index (CDI) was developed for assessing drought vulnerability for the drought prone region of Karnataka.
- Prepared risk map of classical swine fever for the state of Assam, African swine fever for north-eastern hill region and avian influenza for pan India.
- Technologies and disease modelling methodologies were established for 15 animal diseases using machine learning methods.
- Developed Hazard Atlas based on the hazards vulnerability index for the coastal districts.
- Standardized package of practices for Integrated Multi-trophic Aquaculture (IMTA).
- Updated District Agriculture Contingency Plans for 452 districts.
- Identified promising climate resilient technologies for 15 States (Maharashtra, Karnataka, Assam, Himachal Pradesh, Arunachal Pradesh, Sikkim, Kerala, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, Andhra Pradesh, Uttarakhand and Odisha) and shared with the respective State Governments for further upscaling.
- 4795 demonstrations were conducted on various technologies related to natural resource management, crops and livestock components involving 1,95,871 farmers.
- 4124 Capacity building programmes were conducted benefiting 1,28,500 stakeholders.

**(c) to (e):** The details of budget allocated and utilized under NICRA project during the last three years (Rs. In crores) is as follows:

<b>Year</b>	<b>Sanctioned</b>	<b>Utilized</b>	<b>% Utilization</b>
2021-22	47.00	46.06	98
2022-23	40.87	40.44	99
2023-24	48.15	47.44	99

The fund utilization during the said period was optimum, which was ensured by close and regular monitoring.

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