

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

**LOK SABHA**  
**UNSTARRED QUESTION NO. 381**  
TO BE ANSWERED ON 15/09/2020

**PROMOTION OF AGRICULTURAL RESEARCH**

381. SHRI VISHNU DAYAL RAM:

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

- (a) whether steps are being taken/proposed by the Government to promote agricultural research and education to make the country self-reliant in the agriculture sector, if so, the details thereof;
- (b) the suggested norms/criteria for opening new agriculture universities in the country;
- (c) whether the Government proposes to establish new agricultural universities in various States including Jharkhand;
- (d) if so, the details thereof along with the locations identified for the purpose including the estimated funds required for the same; and
- (e) the suggested timeline for the establishment of these universities?

**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. To promote agricultural research and education, and to make the country self-reliant in the agriculture sector, DARE/ICAR has developed a country wide network of 103 Agricultural Research Institutes, 75 Agricultural Universities including 3 Central Agricultural Universities and 11 Agriculture Technology Application Research Institutes ably supported by a network of Krishi Vigyan Kendras (KVKs) at the district level mandated with technology assessment and demonstration for wider application and capacity development. The institutes are developing and promoting high yielding varieties and technologies for higher production, reducing farm input (manpower, seed, fertilizer and water) and improving the income of farmers.

During the last 6 years, to accelerate the development of new and improved crops, improved crop health and sustainable farming practices Nanaji Deshmukh Plant Phenomics Center for research was established at IARI, Pusa, New Delhi. Towards creation of new state of art infrastructure, Rajendra Agricultural University, Pusa, Bihar was upgraded to Dr. Rajendra Prasad Central Agricultural University. Two new institutes on the lines of Indian Agricultural Research Institute - Indian Agricultural Research Institute - Jharkhand and Indian Agricultural Research Institute - Assam were established. New colleges were started under Central Agricultural University, Imphal and Rani Laxmibai Central Agricultural University, Jhansi. Mahatma Gandhi Integrated Farming System Research Institute was established at Motihari, Bihar to provide holistic solution for the farming system in the flood prone areas. To improve the outreach of the ICAR among farming community of the country, 81 new Krishi Vigyan Kendras were established during the last 6 years taking the total number of KVKs upto 721. The details pertaining to the salient achievements made by DARE/ICAR in agricultural research and education are given in **Annexure-I**.

Due to the varieties of crops, improved breeds of livestock, technologies and production practices developed by ICAR/NARS ably complemented by the programmes and policies developed and implemented by the Government, the total production (2019-20) of food grains, pulses, oilseeds, sugarcane, horticultural produce, milk and fish has reached the mark of 295.67, 23.01, 33.50, 358.14, 313.35, 187.70 and 13.42 million tonnes per annum respectively thereby making India self-reliant or surplus in most of these commodities.

(b) Government has issued Guidelines for establishment of Central Agricultural Universities (CAU). These guidelines are available at <https://icar.org.in/files/CAU-Guidelines-%202014-English%20.pdf>

Government has also issued minimum requirements for establishment of new college in Agriculture and allied sciences. These requirements are available at [https://icar.org.in/files/MinimumRequirements\\_Final.pdf](https://icar.org.in/files/MinimumRequirements_Final.pdf)

**(c) to (e):** No, Sir. Currently there is no proposal for establishment of new agricultural universities in India.

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- In higher agriculture education, during the last 6 years, the recommendations of 5<sup>th</sup> Deans Committee were implemented. Four-year degree courses in agriculture, horticulture, fisheries and forestry have been declared as professional degrees. State Agricultural Universities were accredited for quality education in agriculture. A total 40 new centres of excellence were established for advanced training of faculty. To attract talent and strengthen higher agricultural education in the country, the World Bank sponsored National Agricultural Higher Education Project (NAHEP) was started with total funding assistance of Rs.1100.00 crores. A new international fellowship, "Netaji Subhash ICAR Fellowships", was introduced to provide training to Indian scholars in selected excellent laboratories in the world and to train foreign scholars in excellent Indian universities/establishments.
- During the last 6 years, ICAR/NARS developed and released 1405 high yielding/stress tolerant varieties/hybrids in different crops including 707 of Cereals, 220 of pulses, 206 of oilseeds, 154 of commercial crops, 93 of fodder crops besides 20 Bt. Cotton varieties and 5 other crops. In addition, over 472 improved varieties of different horticultural crops have also been notified for cultivation under different agro-climatic conditions during this period. To tackle the problem of malnutrition, a total of 54 biofortified varieties of crops were developed by ICAR, a new initiative. These varieties could be used to effectively tackle malnutrition by incorporating them in the PDS system and/or through introduction in the mid-day meal scheme of schools.
- Approximately, 7,02,663.8 quintals breeder's seed of improved varieties of crops produced and provided DoAC & FW for sustaining the effective seed chain in the country. In addition, 29,25,319.8 quintals of quality seed were also produced and supplied to farmers and other agencies by ICAR during last 6 years. ICAR also produced and supplied 3124.1 lakh Quality planting material including 45.3 lakh tissue culture plants among farmers.
- Developed 63 Integrated Farming System Models encompassing field and horticultural crops, agroforestry, livestock, fisheries for doubling income of small and marginal farmers of different agro-ecological regions of the country. ICAR developed 60 organic farming packages of practices for dominant crops and cropping systems to enhance farmers' income, which are being promoted under *ParampragatKrishiVikasYojana* (PKVY). As part of technology demonstration component of National Innovations in Climate Resilient Agriculture (NICRA), climate resilient technologies are being demonstrated in 446 villages representing 151 climatically vulnerable clusters. The district based contingency plans were prepared for 650 rural districts in the country so far and hosted on ICAR/DAC websites (<http://farmer.gov.in/>, <http://agricoop.nic.in/acp.html>, <http://crida.in/> and were made available to all state agriculture departments for implementation. During 2014-20

ICAR has planned and/or treated more than 4500 ha area of watershed area at various locations falling in various agro-ecological regions of the country for soil and water conservation and productivity enhancement. Land Resource Inventory (LRI) on 1:10000 scale was prepared for 27 aspirational districts of India to workout block level land use planning. In collaboration with FAO, ICAR has contributed around two lakh geo-referenced soil organic carbon stock data which is the product of SOC concentrations, bulk density and reference soil depth of 30 cm. The same was used to develop soil organic carbon map of India at 1 km grid.

- In livestock sector also, focused attention has been given towards improvement of productivity. During the last 6 years 9 new breeds of pig and 6 new varieties of poultry were developed. Besides, a total of 40 new cattle species were registered and notified by the Indian Council of Agricultural Research during the years 2014 to 2019. The total number of registered animal breeds / species in the country increased to 184. As part of an all-time initiative, all these 184 breeds were notified on 14 October 2019 in the Gazette of India to protect the intellectual property rights of these breeds. Ten vaccines were developed by ICAR to deal with various animal diseases. An effective surveillance regime has been developed and thermos tolerant vaccines are being developed to free India from Foot and Mouth Disease (FMD) by 2024. In addition, a total of 43 diagnostic kits were developed by ICAR for effective diagnosis of major animal diseases during last 6 years.
- In fisheries, ICAR developed 12 breeding and seed production technologies for food fishes and 20 ornamental fish species, developed technologies for shrimp farming in inland saline waters, biofloc-technology, Integrated Multi-Trophic Aquaculture and open-sea cage farming, developed cost affective quality feed such as VannameiPlus, SeebassPlus, Polyplus, CIFRI CageGrow, Trout starter feed, Varna, Varsha and Kalor FishPlus for different fish / shellfish culture species, developed improved variety of rohu, ‘Jayanti’ with >50% higher growth after 9<sup>th</sup> generation, improved catla with 30% higher growth and improved freshwater prawn with 30% higher growth and developed several high value compounds, antioxidants and nutraceuticals for combating joint pain, arthritis; type-2 diabetes; dyslipidemia; hypothyroidism; hypertension; osteoporosis; calcium deficiency and obesity. Besides, ICAR implemented National Surveillance Programme for Aquatic Animal Diseases (NSPAAD) in 17 states covering 115 districts with involvement of 27 organizations.
- ICAR, developed over 750 agriculture-based startups and Agri-entrepreneurs including the Farmer Entrepreneurs in various areas of agriculture. ICAR, Research Institutes have provided the support for technology incubation activity and nurturing the techno-entrepreneurs in Agri-business Incubation (ABI) Centers established in 24 ICAR institutes, keeping in view the spectrum of technologies, available infrastructure and the core competency of the institutes.
- Farm implement and machines suitable for farmers under Indian conditions being developed and popularized by ICAR. The farm machinery banks are being established

for machines being manufactured elsewhere in the country to supply in low mechanized region on custom hiring basis. The rural youths/farmers are being trained at the Institutes for custom hiring of farm implements and machines. The custom hiring is catching up in many states like Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Odisha and Manipur etc. During the last 5 years, ICAR research institutes developed 72 equipment/machines/gadgets and 34 products/ process protocols for mechanization of farm and postharvest operations. Established 652 custom hiring centres and established 49 agro-processing centres in rural catchments to encourage entrepreneurship and processing at the production sites.

- The exercise of monetizing 29 major technologies developed by ICAR has indicated the revenue contribution of Rs. 2 lakh crores per annum for the farming community/ country due to these technologies alone (<http://www.niap.icar.org.in>).
- ICAR through their network of 721 KVKs have provided technological support to over 6.0 crore farmers, farm women and rural youth during last 6 years by conducting technology validation and demonstrations, capacity development and organizing extension activities.

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