

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

LOK SABHA
STARRED QUESTION NO. 355
TO BE ANSWERED ON 20/03/2018

PRODUCTIVITY OF AGRICULTURE SECTOR

***355. SHRI RAM CHARAN BOHRA:**
SHRI G.M. SIDDESHWARA:

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

- (a) whether the productivity of the agriculture sector in the country is the lowest in the world, if so, the details thereof and the response of the Government thereto;
- (b) the steps taken/proposed to be taken by the Government to promote the agricultural research activities and improve the functioning of research institutions/organizations and to make the country self-reliant in the agriculture sector;
- (c) the details of agreements signed recently with foreign countries and assistance sought and provided by them for the development of the said sector in the country along with the benefits accrued to the country as a result thereof, country-wise; and
- (d) the extent to which these agreements are helpful in strengthening the agricultural ties with foreign countries?

ANSWER

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE
कृषि एवं किसान कल्याण मंत्री (SHRI RADHA MOHAN SINGH)

(a) to (d): A Statement is laid on the Table of the House.

**STATEMENT IN RESPECT OF PARTS (a) to (d) OF LOK SABHA STARRED
QUESTION NO. 355 TO BE ANSWERED ON 20/03/2018 REGARDING
“PRODUCTIVITY OF AGRICULTURE SECTOR”**

(a) The productivity of agriculture sector in India is not the lowest in the world. Presently the country’s productivity levels in different crops are much better than many countries and global productivity level of our major crops is as under:

Sr. No.	Crop	Rank for productivity
1.	Wheat	5
2.	Groundnut	6
3.	Sugarcane	7
4.	Pulses	9
5.	Paddy	9
6	Maize	10

The productivity of agriculture depends on various factors like agro climatic conditions, adoption of improved technology, crop growing period, biotic and abiotic stresses, etc. Despite these, India has made a commendable progress in genetic enhancement of different crops and the productivity levels have increased to three times (2000 kg/ha) during 2016-17 from 710 kg/ha during 1960-61. The present total food grain production of 275.68 million tonnes has been achieved mainly due to enhancement in productivity. In addition to productivity *per se* per day productivity is also one of the major component for determining the genetic potential of crops. Per day productivity of major crops in India is better or at par with any of the high productivity countries. India has multiple cropping system with high cropping intensity whereas in high productivity countries the crops are taking longer maturity duration due to which only one crop can be taken and cropping intensity is low in comparison to India.

Indian Council of Agricultural Research (ICAR) focuses at harnessing conventional and modern scientific knowledge, tools, and cutting-edge science for development of improved crop varieties/hybrids suited to diverse agro-ecologies situations, climate smart management and protection technology by promoting excellence in basic, strategic and anticipatory research. Further, seed technology research and production of breeder seed of hybrids/varieties is also an important programme. Adoption of modern technologies such as abiotic stress tolerant crop varieties *in situ* moisture conservation, crop diversification, integrated farming system and contingent crop planning to increase the production of agricultural produce in the country. These efforts have resulted in the highest ever production of food grains 275.68 million tonnes during 2016-17. India’s horticulture production with about 299.8 million tons from 24.85 million hectare during 2016-17 has not only brought prosperity to small and marginal farmers, but also provided food and nutritional security to the Nation. Ranked as the second largest producer of Fruits & Vegetables in the world, horticulture in India has today emerged as one of the vibrant part of Indian agriculture. The country ranks at first

position in the production of Banana, Mango, Lime & Lemon, Papaya and Okra. With 165.4 million tonnes ICAR's efforts in this direction has been multidimensional right from taking up research in agricultural Sector from development of high yielding varieties to developing cutting edge technologies enabling farmers to boost their productivity.

(b) The National Agricultural Research System (NARS), which serves the agricultural technology and information needs of the country, has created a research network of 102 ICAR Research Institutes, 11 Agricultural Technology Application Research Institutes (ATARIs) and 73 Agricultural Universities (including 3 Central Agricultural Universities and 5 Universities with Agriculture Faculty) spread across the country. DARE/ICAR has also established a network of 686 Krishi Vigyan Kendras (KVKs) district-wise in the country aiming at assessment and demonstration of technologies/ products developed under NARS and their dissemination among the farmers and line departments through their district level front line demonstration and training programmes. The Council is addressing these aspects through research integration, need-based education and inclusive frontline extension programmes which are playing significant role in the National Food and Nutritional Security.

The ICAR research institutes have taken up basic and strategic research programmes related to crop/fruit improvement and development of production and protection technologies to form a base for applied research. The information so developed is used by respective All India Coordinated Research Projects (AICRPs) and All India Network Projects (AINPs) being carried out in ICAR Institutes and State Agricultural Universities (SAUs) to develop location specific varieties and technologies as per the agro ecological needs for enhancing the production and productivity. Moreover, various novel and cutting edge science-based research programmes are being pursued besides up-scaling the already developed technologies for maximizing the returns in agriculture for overall development of the country. The research programmes are being prioritized to develop new high yielding pest resistant varieties of food crops, pulses, fodder and commercial crop varieties. New research programs have basic, strategic and applied research related to crop improvement, crop production, crop protection, post-harvest operations, value addition, etc. have been taken up. Also, research efforts are on towards judiciously integrating conventional plant breeding, molecular biology, bioinformatics, genetic engineering, human resource and infrastructural development to make the country self-reliant in the agriculture sector.

To further strengthen the Govt. initiative on Bringing Green Revolution to Eastern India including North East, Rajendra Agricultural University has been upgraded to Dr. Rajendra Prasad Central Agricultural University, Indian Agriculture Research Institute (IARI) has been established at Barhi, Jharkhand on the lines of IARI, PUSA, New Delhi and another IARI is being established in Assam, six new colleges started under Central Agricultural University, Imphal. National Research Centre for Integrated Farming established in Motihari (Bihar) and National Organic Farming Research Institute established in Tadong (Sikkim). Besides these, ICAR established six new Regional Research Stations in MP, Karnatka, Andhra Pradesh, Gujarat and West Bengal and opened 2 new colleges opened under Rani Laxmibai Central Agricultural University,

Jhansi. Financial support has been extended to Telengana, Andhra Pradesh, and Haryana Governments for the establishment of new Agriculture and Horticulture Universities.

As a result of various initiatives by the Government ICAR/ NARS has developed 645 high yielding climate resilient crop varieties / hybrids of field crops have been released for cultivation in different agro-ecologies of the country during the last 3.5 years. Besides, 130 improved varieties of 54 important horticultural crops were also developed by ICAR. ICAR has also developed and validated 623 district contingency plans and conducted skill development programs for 40.9 lakh farmers. ICAR has also developed 45 Integrated Farming Systems (IFS) models in 23 states and 1 Union Territory covering all the 15 agro-climatic regions of the country. These models are being promoted through 462 KVKs in the country. ICAR has also developed 42 Organic Farming Technologies which have been tested and refined through 20 Centres of the AICR project on organic farming across 20 states including 7 north eastern states.

(c) Ministry of Agriculture and Farmer's Welfare have signed twenty five MoUs/Agreements relating to agriculture and allied areas during 01/01/2015-13/03/2018. Besides these, ICAR has also signed MoUs with eight foreign universities/organisations for Capacity Building, Germ-Plasm Exchange etc. A MoU for establishment of BRICS Agricultural Research Platform was also signed to focus on agricultural research, technology, policy, innovations, extension and technology transfer, training and capacity building and information sharing among BRICS countries. Besides India has developed very active collaboration with Consultative Group on International Agricultural Research (CGIAR) system, an international organization that advances international agricultural research for a food secure future by integrating and coordinating efforts of those who fund research and do the research for strengthening the national programmes and works through 15 Research Centres. India is a donor member of country of CGIAR system and now has also become a voting member of newly restructured CGIAR System. India contributed an amount of Rs. 55.763 Crores to CGAIR institutions during year 2017-18.

(d) The benefits accrued / likely to accrue from these agreements are in the form of enhancement of exchange of knowledge, transfer of appropriate technologies, sharing of equipment, exchange of genetic material, research and capacity building and skill development programs for the development of the agricultural sector besides providing training and visiting facilities in respective countries, visit of farmers and farmer organization, providing opportunities for advanced research and higher education in agriculture in other countries in various spheres of agriculture. These also provide our scientists the opportunity to contribute in tackling the National/International challenges which very often go beyond the boundaries as well as to contribute effectively towards ensuring food and nutrition security for the global community.
