

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

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 489**  
TO BE ANSWERED ON 05/02/2021

**R&D IN AGRICULTURE SECTOR**

489. SHRI SUSHIL KUMAR GUPTA:

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

- (a) whether Government has any plan to strengthen the role of agricultural research and development (R&D) in supporting the farming systems;
- (b) whether it is a fact that agricultural research has neither provided alternative equally remunerative crops nor farming systems that would reduce natural resource inputs like water which has resulted in groundwater depletion in the country; and
- (c) if so, the steps that have been taken so far in this regard in the last three years along with the percentage of GDP spent on R&D in agriculture sector in the country?

**ANSWER**

**THE MINISTER OF AGRICULTURE & FARMERS WELFARE**  
**(SHRI NARENDRA SINGH TOMAR)**

(a) Yes Sir, Government of India supports R&D efforts towards developing and promoting remunerative farming systems in the country. Indian Council of Agricultural Research (ICAR) under All India Coordinated Research Project on Integrated Farming Systems (IFS) has developed 63 farming systems with the participation of farmers in 18 States.

**(b) & (c):** The IFS models developed by Agricultural Research System offer scope for better and sustainable use of natural resources including soil and water, higher profit and employment besides contributing towards household food and nutritional security. Complementary technologies such as bio-intensive cropping systems, multi-storied cropping and land configuration-based farming systems with

location specific components help to make small land holdings more viable. Most of the IFS models have the demonstrated potential of increasing the farmers income by 2-3 times or more and have been included in State Plans by Government of Bihar, Karnataka, Kerala, Jammu & Kashmir and Tamil Nadu for up-scaling. Thirty-one bankable projects suitable for 22 states have also been prepared by ICAR for supporting through medium and short-term credit for scaling up through schemes of States and Central Government.

The steps taken during the last 3 years are as follows.

- Eighteen IFS models, 14 bankable projects on IFS and organic farming packages for 22 cropping systems were developed during last 3 years. Prototypes of different region-specific IFS models have been established at several Agricultural Universities and ICAR institutes for training and capacity building of extension agencies besides demonstrating business model to attract rural youth.
- ICAR has developed 765 field crop varieties of which 578 varieties are climate resilient, 98 drought/moisture stress tolerant; 41 short duration varieties and 47 biofortified varieties suitable for development of alternative and remunerative cropping system during last 3 years.
- Through the countrywide network of 722 Krishi Vigyan Kendras (KVKs), 43.39 lakh farmers were trained on new technologies including resource conservation technologies. KVKs also executed 7.02 lakh frontline demonstrations on various crops, livestock, fish and other enterprises and organized 27.94 lakh extension activities for the benefit of 470.83 lakh farmers during the period.

The public spending on agricultural research and education of agricultural gross value added (GVA) **in the country** for the years 2015-16 to 2017-18 was about 0.62% at current prices.

<b>Year</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>
Amount (Rs Crore)	13,891.1	15,061.7	17,359.7
R&D spending as % of GVA	0.62	0.60	0.62

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