

**GOVERNMENT OF INDIA  
AGRICULTURE  
LOK SABHA**

UNSTARRED QUESTION NO:1352

ANSWERED ON:28.07.2015

Agricultural Research

Selvam Shri V. Panneer

**Will the Minister of AGRICULTURE be pleased to state:**

(a) whether the Government has held any joint research programmes with agricultural research institutions of other countries to make the research more progressive and at par with other countries; and

(b) if so, the details thereof along with the benefits accrued therefrom?

**Answer**

MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE  
(DR. SANJEEV KUMAR BALYAN)

(a) Yes Madam, the Government of India takes measures to encourage research programmes with agricultural research institutions of other countries to make the agricultural research more progressive and at par with the other countries.

(b) Research programmes with agricultural research institutions of other countries are carried out as per the MoUs and Work Plans signed with them. The details of some of the measures undertaken in the recent past are listed below:

MoUs/Work Plans, 2015

1. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and The University Court of the University of Edinburgh, Scotland, United Kingdom on 16th January, 2015.

MoUs/Work Plans, 2014

1. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Global Alliance for Livestock Veterinary Medicine (GALV med), UK in March-April, 2014.

2. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Global Foot and Mouth Disease Research Alliance (GFRA), USDA, U.S.A on 8th April, 2014.

3. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Dhofar University (DU), Sultanate of Oman on 13th June, 2014.

4. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the University of Queensland, Australia on 5th September, 2014.

5. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Ohio State University, USA in October, 2014.

6. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Auburn University, USA on 11th December, 2014.

MoUs/Work Plans, 2013

1. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Robert B. Daugherty Water for Food Institute of the University of Nebraska, USA on 19th February, 2013.

2. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Purdue University, USA in March, 2013.

3. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the School of Veterinary Medicine, University of Pennsylvania, USA on 21st August, 2013.

MoUs/Work Plans, 2012

1. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Kaz Agro innovations (KAI), Kazhakastan on 31st May, 2012.

MoUs/Work Plans, 2011

1. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Ethiopian Institute of Agricultural Research (EIAR), Ethiopia was signed in December, 2011.

2. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Board of Trustee of the University of Illinois, Urbana-Champaign USA was signed in November, 2011.

3. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Agriculture Development Fund, Govt. of Saskatchewan, Canada.

4. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the Michigan state University, USA in August-September, 2011.

MoUs/Work Plans, 2010

1. A Work Plan for the year 2010-11 between the Indian Council of Agricultural Research (ICAR), New Delhi, India and the Agricultural Research Centre for the Arab Republic of Egypt was signed on 14th January 2010.
2. A Memorandum of Understanding between the Indian Council of Agricultural Research (ICAR), New Delhi, India and the Kansas State University, USA was signed on 7th June 2010.
3. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the National Institute of Research on Forestry, Agriculture and Livestock of the United Mexico States, Mexico (INIFAP) was signed on 7th September, 2010.
4. A Memorandum of Understanding between Indian Council of Agricultural Research (ICAR), New Delhi, India and the University of Georgia, USA was signed on 7th September, 2010.
5. The quadripartite "Letter of Intent" for Joint Global Research Collaboration on "Food Security: Sustainable Crop Production Research for International Development" was signed on 11th November, 2010 between (i) Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India; (ii) the Indian Council of Agricultural Research (ICAR) (iii) Biotechnology and Biological Sciences Research Council (BBSRC), UK and (iv) Department of International Development (DFID), U.K.

#### Collaborative Research Programmes with Foreign Countries/Institutions:

##### Crop Science Division:

1. GCP funded project "Targeting Drought Avoidance Root traits to Enhance Rice Productivity under water limited Environments" funded by IRRI, Manila.
2. Molecular Markers for broadening the Genetic base of Stem Rust Resistance Genes Effective against Strain Ug-99 funded by ACIAR, Canberra.
3. Tracking change in Rural Poverty in house hold and village economies in South Asia funded by ICRISAT.
4. Molecular Marker Technologies for faster Wheat breeding in India funded by ACIAR, Canberra.
5. Facilitation and coordination of Rice Wheat Consortium activities in India funded by IRRI, Manila.
6. Tracking Improved rice varieties in South Asia funded by IRRI, Manila.
7. Enhancing farm profitability in north-west in India and South Australia by improving grain quality of wheat funded by ACIAR, Canberra.
8. Root and Establishment trials for greater water use efficiency in Wheat funded by ACIAR, Canberra.
9. Wheat Improvement for Water logging Salinity and Element Toxicities in Australia and India funded by ACIAR, Canberra.
10. Abiotic Stress tolerance maize for increasing income and food security of eastern India and Bangladesh funded by BMZ, Germany and CIMMYT, Mexico.
11. Development on stress tolerant rice varieties/ marker assisted breeding of abiotic stress tolerant rice varieties with major QTLs for drought submergence and salt tolerance funded by IRRI, Manila.
12. Enabling poor rice farmers to improve livelihoods and overcome poverty in South and South East Asia through the CURE funded by IRRI, Manila.

##### Natural Resource Management Division:

1. Impact of meso-scale watershed development in Andhra Pradesh and Comparative catchment in Australia funded by ACIAR.
2. Water harvesting and better farming systems for benefit of small farmers in watersheds in the East India plateau funded by ACIAR.

##### Horticultural Science Division:

1. Banana Germplasm for drought tolerance for the benefit of resource poor farmers funded by Global Crop Diversity Trust Biodiversity International.
2. Engineering late blight commercial Indian potato Cultivars funded by ABSP-II Project.
3. Conserving Banana Diversity for use in perpetuity funded by Biodiversity International.

##### Animal Science Division:

1. OIE Twinning concept project between National Research Centre for Protozoan Disease (NRCPD), Obihiro, Japan. OIE proposal for a) Glanders and b) Equine Influenza funded by OIE.
2. Monitoring and intervention strategies for BT virus epidemics in rural India" between Institute of Health and ICAR /SAUs funded by BBSRC, UK.
3. The use of irradiated vaccine in the control of Trypanosomiasis caused by Trypanosoma evansi in Livestock" funded by IAEA.
4. Identification of molecular basis of differential host response to rapidly evolving avian influenza viruses in different avian species funded by DBT under BBSRC, UK Programme.
5. Understanding Foot and Mouth Diseases Viral Ecology and Landscape Epidemiology towards Control and Eradication funded by CRDF.
6. Development of multiplexed diagnostic biosensor for infectious reproductive diseases of cattle and buffaloes funded by DBT under BBSRC, UK Programme.

##### Fisheries Division:

1. Genetic Improvement of fresh water prawn macro-brachium Rosenberger (deMan) funded by World Fish Centre.

#### Benefits accrued:

International cooperation has played a significant role in developing and strengthening the agricultural research system in India. Many

developed countries like USA, UK, USSR, Canada, Australia, Japan, several European countries; Charitable Institutions, etc.; Rockefeller and Ford Foundations; various International Agencies like FAO, UNDP, UNESCO, World Bank, etc.; and the International Agricultural Research Centers under the Consultative Group on International Agricultural Research (CGIAR) System have contributed extensively to the cause of agricultural research in India.

Spectacular achievements in increasing the food production have raised the country's image considerably, and the bilateral arrangements have changed from the erstwhile donor-donee status to relationship of equal partnership in research. The reciprocity and mutuality of interests with the less developed and as well as the technologically advanced countries are the essence of international cooperation.

Benefits of partnership in agricultural research include: increase in the yields of crops and livestock species, enhancement in productivity, advanced technologies for protection of crops and livestock species, value addition of crops, livestock products and horticultural based products, product diversification, knowledge about new pests and diseases, advancements in science related to biotechnology etc. It has helped in developing repositories of genetic resources related to crop, livestock, fish, insects and microorganisms for their sustainable utilization.

Partnerships and synergies through international cooperation has resulted in enhancing the preparedness of the organization to meet the growing challenges for producing more food for the increasing population. It has increased the organization's Intellectual Property Rights (IPR) domain. It is expanding its reach for generating and disseminating new scientific knowledge to its wide range of stakeholders in the production and food value chain across the country.

International cooperation has resulted in promoting innovation and in improving human resource capacity of the Council. It has strengthened institutional capacity for sustainable food, nutrition and livelihood security and also enhanced the global competitiveness in agricultural research and education.

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