

RESEARCH

On-going research focuses on structural transformation, value chain analysis, resource use planning, doubling farmers' income, climate resilient agriculture, agricultural innovations, delivery of extension services, farm mechanization, micro-irrigation, technology foresight, water management, market integration, crop insurance and market reforms. Research projects also include the following collaborative projects:

- **Structural Transformation, Regional Disparity and Institutional Reforms in Agriculture**

The impact of export promotion in processed and unprocessed foods sectors on output growth in farm and non-farm sectors, labor and capital intensity, shift in labor demand across gender and education, and the inequality in income distribution in rural and urban households are quantified. Governance indicators related to agriculture are constructed and performances of states over time are assessed. Impact of irrigation governance on agricultural productivity is also estimated.

- **Promoting Value Chain of Agricultural Commodities**

Under this project, the institute along with the network partners have mapped and analyzed in terms of costs, returns and margins besides identifying weak and strong points for intervention in the value chains of regionally important commodities comprised of horticultural, livestock and organic value chains.

- **Resource Use Planning for Sustainable Agriculture**

Sustainable cropping pattern and crop-livestock mix were identified for major agro-ecologies of the country. Different resource use scenarios and enterprise patterns were built by simulating the effect of technologies and policies. Case studies on resource use pattern and returns of conservation technologies were also conducted.

- **Doubling farmers' income in India by 2021-22**

A framework for income estimation based on improvement in seven sources of growth namely, crop and livestock productivity, resource use efficiency, crop diversification, cropping intensity, price realization and non-farm sector was developed and interim income growth rates from 2015-16 to 2018-19 were estimated. The estimates indicate a positive direction of change. These income estimates are being used by the DAC&FW for appropriate strategic framework.

Consultancies

- **Transformation and Sources of Growth in Southeast Asian Agriculture**

The study focused on decomposition of agricultural growth. For efficient, sustainable and inclusive growth,

the recourse has to be with exploiting potential of (i) existing and frontier technologies, by investing more in agricultural research and extension systems, and (ii) diversification of production portfolio towards higher-value food commodities by strengthening institutions that link farmers to remunerative markets; and investing in post-harvest infrastructure for food processing.

- **Policies for assuring availability of P & K fertilizers**

In the study, various policy options were analyzed to ensure the uninterrupted supply of fertilizers and raw material to the Indian fertilizer companies to ensure availability of fertilizers at reasonable prices.

- **Post-Harvest studies of commodities**

The study on post-harvest profile of commodities viz. onion, potato, tomato, groundnut, mustard, bengal gram, soybean, green gram and red gram was accomplished entailing information from origin, importance, area, production, zone-wise major commercial varieties, national and international prices trends, post-harvest management, marketing practices and constraints, marketing channels, costs and margins, marketing information and extension besides alternative systems of marketing besides institutional facilities and their utilization.

Publications

Economic Impact of ICAR Research

The book documents the impact of 30 recent technological interventions on almost all sectors of agriculture (crop, horticulture, animal husbandry, fisheries, natural resource management and farm machinery) which have made significant impact on farmers' fields. The evidences are collated from SMDs and ICAR institutes to help policymakers and other stakeholders. The book is bilingual and also available on the ICAR and the institute website.

COVID-19 Lockdown and Indian Agriculture: Options to Reduce the Impact

The article discussed the impacts of the lockdown on Indian agriculture. The paper showed that agriculture remained largely unaffected during the lockdown. Measures to minimize the impact and available opportunities are also recommended.

Agricultural Sustainability in the Indo-Gangetic Plains of India

The brief contains measures and practices for agricultural sustainability in the Indo-Gangetic Plains. A framework for agricultural sustainability assessment is also discussed.

Annual Report 2019-20

The report glimpses the accomplishments achieved by the institute during the year 2019-20. It also

spectacles the significant research contributions, engagements in policy dialogues, and outreach of the capacity building programs and publications of the Institute.

Research Advisory Committee (RAC)

The virtual meeting of RAC was convened on 26th May 2020 to review the research progress and future programs (2020-24), under the chairmanship of Prof. Abhijeet Sen, former member, Planning Commission. Action taken report on recommendations from previous meeting of RAC was presented to the committee. Work progress of the ongoing research programs were reviewed by the committee during the meeting under all the three themes. RAC members provided valuable suggestions and recommendations for improving the research agenda of the institute for the new EFC.

CAPACITY BUILDING

Induction-level Training of IES Officers on Core Issues related to Agricultural Sector

Conducted training program for Indian Economic Service Officers on "Core Issues Related to Agricultural Sector" during February 17-21, 2020. All the trainees appreciated the training program, content and field visits which were coordinated by Dr Rajni Jain and Dr Balaji S J.

Webinar Series

ICAR-NIAP organized 20-day Webinar Series on "Quantitative Methods for Social Sciences" from June 2 to June 20, 2020. About 4200 researchers and students had registered for the series. Lectures covered various quantitative methods required for social scientists by giving theoretical as well practical coverage using software. Recorded lectures are available on Facebook page (<https://www.facebook.com/ICARNIAP>) and YouTube channel () of the institute. The videos so far have been viewed by more than 51 thousand people.

Lecture Series on Agriculture Development

ICAR-NIAP started a lecture series on "Agricultural Development" focusing on various aspects of agricultural development. First Lecture was delivered by Dr Suresh Pal, Director, NIAP on "Agriculture during Covid-19, Economic Package and Reforms" on June 16, 2020. Second lecture was jointly given by Dr Ramesh Chand, Member, NITI Aayog and Dr H K Bhanwala, Former Chairman, NABARD on June 24, 2020. It covered various aspects related to policies and finance



in agriculture. These videos available on Facebook are viewed by more than 8700 persons.

WORKSHOP/SEMINARS

One-day national seminar on sustainable agriculture was inaugurated on March 6, 2020 by Dr T. Mohapatra, Secretary, DARE and DG, ICAR.



Measurement of agricultural sustainability, sustainable agricultural technologies, practices, policies and institutions were discussed in the seminar. On this occasion a NIAP Policy Brief 46 titled "Agricultural sustainability in the Indo-Gangetic plains of India" authored by Chhabilendra Roul, Prem Chand and Suresh Pal was released.

EVENTS

International Women Day

The day was celebrated on March 9, 2020. Dr Usha Ahuja, former principal scientist, ICAR-NIAP, chief speaker shared her views on significance and necessity of empowering women in agriculture.

Ambedkar Jayanti Celebration

ICAR-NIAP staff celebrated Ambedkar Jayanti on April 14, 2020 using virtual means during lockdown. All colleagues read the preamble of constitution of India and constitution duties from their respective homes due to lockdown. Dr Suresh Pal, Director, ICAR-NIAP chaired the meeting.

International Yoga Day

As per the directives of the ICAR, International Yoga Day was celebrated on June 21, 2020. An online Yoga session was organized in guidance of eminent yoga trainer, Mrs. Shikha Chakraborty from Mumbai.

Personnel

Scientific strength reached 26 with posting of one scientist at NIAP.

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