

Eighth International Conference on Agricultural Statistics (ICAS-VIII) held at New Delhi, India during November 18-21, 2019

The Eighth International Conference on Agricultural Statistics 2019 (ICAS-VIII) was organized during 18-21 November 2019 at New Delhi, India. International Conference on Agricultural Statistics (ICAS) is a series of conferences, promoted by Food and Agriculture Organization (FAO), World Bank (WB), United States Department of Agriculture (USDA), International Statistical Institute-Committee on Agricultural Statistics (ISI-CAS) and other international development agencies, which started in 1998 based on the overarching need for agricultural data worldwide. Earlier seven such conferences have been hosted in different countries viz. USA, Italy (twice), Mexico, China, Uganda and Brazil.

The theme of ICAS-VIII **Statistics for Transformation of Agriculture to Achieve the Sustainable Development Goals (SDGs)**, was very apt as it is a matter of Global concern. Given the importance of agriculture and high academic and research standards of agricultural research and more so agricultural statistics, India is the natural choice to host this Conference. This is a unique and important opportunity for India to host this academically enduring conference. This Conference is a platform to share the rich scientific traditions of India in the field of statistics and agriculture by sharing Indian expertise with other countries. Other thematic sets for concurrent sessions were Data Analysis / Data Integration; Data Sources / Data Collection/ Data Quality; Data Dissemination & Communication; Use of Statistics for Policy Making and Research; Food Security, Poverty, Rural Development and Social Dimensions of Agriculture; Sustainable Agricultural Production and Consumption; Natural Resource Use in Agriculture; Climate Change and Environmental Issues; Capacity building in Agricultural Statistics and Monitoring the SDGs. In the website <https://icas2019.icar.gov.in/> detailed information about the Conference are available.

ICAS-VIII was organized by the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers' Welfare (MoA&FW), Government of India with active participation from Department of Agriculture Cooperation & Farmers Welfare (DAC&FW) under MoA&FW and in close collaboration with the Food and Agriculture Organization (FAO) of the United Nations, the US Department of Agriculture (USDA), ISI-CAS, EUROSTAT, Ministry of Statistics and Programme Implementation (MoSPI) and many other international and national organizations. It is emphasized here that, the DARE, under its valuable guidance, entrusted the task of organizing this mammoth event to ICAR-Indian Agricultural Statistics Research Institute (IASRI), New Delhi which is a constituent institute of ICAR that jointly worked with Indian Society of Agricultural Statistics (ISAS), New Delhi and National Academy of Agricultural Sciences (NAAS), New Delhi for smooth conduct of the event.

The inaugural function was held on November 18, 2019 at National Agricultural Science Complex, New Delhi and other thematic sessions were held during 19-21 November 2019 at The Ashok Hotel, New Delhi. The inaugural function was attended by approximately 1100 participants consisting of conference delegates, officials from various Ministries, volunteers and students. The Conference was inaugurated by Shri Bill Gates, Co-Chair, Bill & Melinda Gates Foundation in the presence of Shri Narendra Singh Tomar, Union Minister of Agriculture & Farmers' Welfare, Rural Development and Panchayati Raj who presided over the inaugural function of the conference and Guest of Honour Shri Kailash Choudhary, Union Minister of State for Agriculture & Farmers' Welfare. Shri Tomar stated that it was a

proud moment for India to host the ICAS event. He stressed on the importance of agricultural statistics in realizing the Government of India's various agricultural-centric schemes. The Minister stated that the subject of statistics holds a crucial place in agriculture like other spheres of life. Shri Tomar regarded the conference to be a great opportunity for the national and international experts to share and exchange their expertise in the field of statistics. While applauding the various statisticians and scientists working in the field of the agricultural statistics, Shri Kailash Choudhary, Union Minister of State for Agriculture & Farmers' Welfare highlighted about the Government's various schemes that are aimed at doubling the farmers' income. He emphasized that the four-day conference will be a fruitful opportunity in realizing the desired goals.

Shri Bill Gates, Co-Chair, Bill & Melinda Gates Foundation, addressed the audience on the theme of improving agricultural productivity using data and innovative technologies. In his speech on the occasion, he said, "In the hands of a single smallholder, the right information can lead to a 20% revenue increase for one farm." He further added, "We can help the world's two billion smallholders adapt to climate change much quicker if everybody in the agriculture sector has access to quality information."

While delivering welcome address during the inauguration of the ICAS event, Dr. Trilochan Mohapatra, Secretary, DARE and Director General, ICAR accentuated that prompt management of agricultural statistics is vital for agriculture-centric country like India. Dr. Mohapatra stressed that in order to deal with the challenges posed due to climate change, enhancing the farmers' income, eradicating poverty and malnutrition and meeting the vision of sustainable development goals, joint efforts are required for strengthening the statistical system which in turn will pave way for achieving these targets. He pointed out that ICAR through one of its Institutes IASRI, has given valuable contributions in the field of agricultural statistics including, but not limited to, crop cutting experiments which are being implemented globally and thus aptly the conference has been held in India. He stressed that the roots of statistics can be traced to Indian epics and historical texts and thus we have now not only a full fledged national statistical system but also national agricultural statistics system. He opined that integration and triangulation of data coupled with modern techniques of remote sensing and GIS has become the order of the day. He quoted the words of the legendary and world renowned agriculturist Prof. M.S. Swaminathan that "It is the effective use of tools of statistical design of experiments that paved the way for green revolution". He suggested that we need to rededicate towards strengthening the statistical system so that the statistical quality of data in real time is ensured and work towards designing cloud computing, use of Artificial Intelligence and Big Data analytics which has become highly necessary in this digital era. Highlighting the importance of Sustainable Development Goals, he mentioned that it will help in eradicating the problems and challenges of malnutrition in an effective manner and that we are committed towards achieving these goals. Dr. Mohapatra expected that the conference will help in discussing and framing the new policies and future action plans. He emphasized that the seminar is intended for young statisticians working in the field of agricultural statistics, or statisticians new to the field of agricultural statistics.

This conference has been attended by 500+ delegates from 100+ countries across the globe. Intellectual expertise and experiences were shared through 288 papers comprising of 18 plenary talks and panel discussions, 165 thematic oral presentations, 95 poster presentations and rich academic discussions during the presentations. The interest shown in delivering the work by the participants from across the globe serves as a reminder to us that how important the theme of this conference is. The keynote session discussed the topic how to measure

SDGs. In plenary sessions, discussions were held on the need for timely and accurate agricultural statistics, information and details of 50 × 2030 initiatives, information pathways for enhancing farmer's income and financing agricultural statistics.

Shri Pietro Gennari, Chief Statistician, FAO, Rome, Italy; Ms. Mariana Kotzeva, Director General, EUROSTAT and Prof. Ramesh Chand, Member, NITI Aayog, India were some of the Keynote Speakers during the Conference. Prof. Ramesh Chand, Member, NITI Aayog, India stressed on adoption of effective ways to monitor the statistics of agricultural data with promptness and efficiency. He also emphasized on electronically monitoring of the statistical data. This would help in saving the time and maintain the accuracy of the data. Shri Pietro Gennari, Chief Statistician, FAO, Rome mentioned that the conference has provided a great platform for the experts of the agricultural field to interact and exchange their expertise of agricultural statistics. He stressed that it was indeed a great opportunity to discuss and finalize the several future plans on maintaining and monitoring the agricultural statistical data promptly. Shri Pravin Srivastava, Secretary, Ministry of Statistics and Programme Implementation stated that the huge informal economy in India poses challenges to collect statistical data. As the manual data collection is a challenge, it is necessary to adopt the latest technologies for the agricultural statistical data collection. Dr. Michael Steiner, ISI CAS and World Bank, who was also the Chair for the Scientific Programme Committee of ICAS, stated that it is pertinent to organize such types of conferences in the agriculture-centric countries like India. He emphasized on the importance of managing the agricultural statistics for the overall development of the country. Shri Ugo Astuto, Ambassador-Designate, European Union of India stated that the statistical data helps to realize the sustainable development goals. It plays a crucial role to monitor the progress of the country. The presentations in the plenary sessions along with the thematic sessions have laid the foundation stone for building the beautiful monument of achieving SDGs with mutual partnerships, collaboration and understanding.

Earlier, while speaking during a curtain raiser organized prior to ICAS event, Dr. Purvi Mehta, Senior Advisor and Head of Agriculture for Asia, Bill & Melinda Gates Foundation (BMGF) highlighted about the huge potential in agricultural statistics in India. She stated that the conference will be a great opportunity for the various scientists and experts of agricultural fields to exchange their expertise with each other. This would help to enhance the agricultural scenario both at the country and the international level too. Dr. Mehta also highlighted that the conference will help in evidence-based policy making. She accentuated that the conference will help in Government of India's vision of doubling the farmers' income effectively and efficiently.

In his Valedictory address, Dr. Trilochan Mohapatra accentuated on the enhancing the capacity building through the global partnership. He stressed on the need to have more capacity building in data interpretation and data analysis than in data collection. The Director General urged the countries for identifying their special strengths and sharing them with others wherever the deficiencies are present. He opined to create a Global Knowledge Hub for Agricultural Statistics (GKHAS). He emphasized on working towards global public good. He urged for supporting the evidence-based decision making through data analytics by creating investments in infrastructure and capacity building. He opined for filling-up the data gaps by investments in infrastructure, diversification in agriculture and providing easy market access to the farmers. The Organizing Chair regarded the data as the driver of change. He opined for developing the business models involving government and private sectors. He mentioned that it is important for identifying how data can serve as an important resource not

just for farm-related decision support, but is all the more important for framing farmer-centric policy in the developing countries. Dr. Michael Steiner, Chairman, ISI CAS and Chair, Scientific Programme Committee, ICAS VIII accentuated that the technology speeds up opportunities, but it poses challenges too. He stressed that the use of technology helps in generating timely and accurate data, but it should not be considered as a complete replacement of surveys. Modern technologies for data generation need to be taken up strengthened along with surveys. With the availability of high resolution data, precision of data collection has improved, but without strong and accurate ground truth data remote sensing alone may not be an answer.

Shri Jose Rosero Moncayo, Director, Statistics Division, FAO, Rome urged the agricultural statisticians to come together and identify the gaps between the data collection and maintenance. He accentuated on developing statistical standards for food and agricultural statistics. Shri Gero Carletto, Manager, World Bank, Washington emphasized that the quality and relevance of data is more important than the quantity. He also urged the statisticians to develop strong partnership with the policy researchers in order to generate good agricultural data.

The 2030 Agenda encompasses a far broader ambition requiring better, more timely and reliable data on a wider variety of indicators for evaluating and monitoring of SDGs. Thus its adoption by countries around the world necessitates an even more significant increase in the data that is available to, and used by, governments, civil society, the private sector, academia and international organizations to begin tracking progress towards the achievement of the SDGs.

ICAS-VIII was also annexed with three side events as post-conference events on the use of methods and standards for the collection and analysis of agricultural statistics which includes (i) Methodology for Agricultural Censuses and Surveys for Young Statisticians by USDA; (ii) Using Administrative Data for Agricultural Statistics by EUROSTAT and (iii) Closing the Agricultural Data Gap through Agricultural Integrated Surveys by FAO





