



Report on Indian Society of Extension Education National Seminar-2023 “Evolving Extension Science towards Secondary Agriculture for Sustainable Development” held at University of Agricultural Sciences, Bangalore, India during 22-24 June, 2023

Amidst the emerging dynamics of market and policy reforms by the Government, secondary agriculture has the potential to offer solutions to challenges in agriculture. To address the challenge of identifying and suggesting extension science for transition to secondary agriculture to attain sustainable development, the national seminar on *Evolving Extension Science towards Secondary Agriculture for Sustainable Development* was organized on the occasion of 60th anniversary of ISEE, New Delhi at the University of Agricultural Sciences, Bangalore by the Indian Society of Extension Education, New Delhi, UAS, Bangalore, Karnataka Chapter of ISEE in collaboration with several state and national level organisations concerned with secondary agriculture.

The National Seminar-2023 inaugurated by Hon'ble Susri Shoba Karandlaje, Union Minister of State for Agriculture and Farmers Welfare where need was expressed to think on reaching international markets to empower small and marginal farmers and coordination among all farm universities and line departments. The seminar covered ten major themes relating to secondary agriculture and allied aspects of extension education and provided a platform for deliberations on the achievements and a way forward by more than 550 scientists and delegates along with 100 farmers and 37 exhibitors during three-day deliberations divided into 35 sessions wherein 35 lead papers were presented by invited speakers. The participants represented 25 states, 63 universities, and 17 ICAR institutes. A total of 777 abstracts were received which were published in the form of book of abstracts containing 488 pages. The major take home emerged from presentations and discussions have been grouped under five broad heads:

Leveraging social media and ICT interventions

- Keeping in view the advancements in digital technologies, public extension systems should harness the power of drones, machine learning, artificial intelligence, low-cost sensor networks, block chain/ RFID

technologies for traceability, social media analytics-based extension, high resolution remote sensing imageries, 3d printing etc. for dissemination of agricultural technologies to the farming community.

- Digital extension services, especially from ICAR/SAUs/ state department line departments should be aligned with the Agri-stack to serve as a foundation to build innovative agri-focused solutions leveraging emerging technologies. Farmers' education on the services available in government apps along with the methodology of using these apps need to be prioritized with suitable support of manual guide and videos.
- Social media need to be used and promoted as an essential tool for farmers and agribusinesses to connect with consumers, access to new markets and customers and enable them to sell and promote their products online.
- There is need to address the challenges like access to technology and internet connectivity, digital literacy and affordability of ICT tools and services, policymakers, private sector players, and development agencies need to work together to bridge these gaps and ensure equitable access and unlock the potential of ICT in agri-entrepreneurship, contributing to sustainable agricultural development and rural economic growth.

Entrepreneurship Development and Human Resource Development

- The government policies and programmes to promote agriculture entrepreneurship like start up India, stand up India etc., need to be popularized at a greater level. The key areas of HRD with regard to agricultural enterprises need to be focused and strengthened. As Farmer-led innovations have potential of agri-preneurship development and contribute to sustainable development by promoting environmentally friendly farming practices, need more focus and institutionalization. KVKs may facilitate registering the patents of technologies and

innovations developed by the farmers, certification of food products, seeking FPO / Agro-license and quality control license for value added products and provide backstopping to other KVKs and share their experiences.

- Empowerment of farmers and secondary agriculture can be achieved by establishment of structured extension service in processing sector. Extension service providers need to have skill for value chain analysis and need to educate farmers about storage facilities, finance management, facilitation services, and pro-active extension system so that small and medium level enterprises at village level may be created.
- The sustainable processing methods can enhance the nutritional and health benefits simultaneously providing value addition, technological innovation, diversification, export potential and market expansion consequently leading to economic development and food security.
- More emphasis should be given to partnership extension model, FPO partnership model, PPP model, convergence model, community based extension model, A2N model, livelihood security model, multimedia model, digital farm school, *Dhanyamahotsav* model, linking farmers to market and school children extension model. There is a need to link the farmers with agro based companies and promote direct marketing.
- Extension Research need utilize next generation methodologies like meta-analysis, RCT and DID, DCE, SEM, FUZZY theory, grounded theory, Artificial intelligence, Big data etc., Capacity building programmes should be organized for scientists and line department officers in emerging subject matter areas. The role of human resource development in facilitating technology adoption and digital transformation in agricultural entrepreneurship, the impact of digital literacy training, access to information and communication technologies, and the use of e-commerce platforms and entrepreneurial success analysis are key researchable issues.
- Entrepreneurship development to be considered as an essential component of extension educational activity, two levels of training/ capacity building activities including cognitive skills and the psychomotor skills on production of marketable product, operation maintenance etc. are to be taught. The students are to be oriented on Ideation, selection of potential enterprises, SWOT analysis and preparation of business proposals with value chain and financial requirements.

Innovative Extension Science Methodologies

- Establishing platforms for networking mentorship, and collaboration will foster a culture of continuous learning, innovation, and support among agricultural entrepreneurs. Encouraging of environmentally conscious entrepreneurship, resource conservation, and climate-smart farming techniques will contribute to long-

term sustainability and resilience in the agricultural sector.

- Encouragement of PPP) will enrich technology development, commercialization and transfer and investment requirement for the growth of secondary agriculture, where, the Government should be the facilitator, rather than a controller with minimum bureaucratic hurdles. Establishment of food processing units near agricultural production areas need to be facilitated. Migration of skilled and talented workforce may be addressed by strengthening infrastructure at grassroots' level.
- The curricula at SAUs should include secondary agriculture, bio processing technologies and agribusiness courses to have the right human resources to manage secondary and primary agriculture. In the process SAUs should offer diploma/certificate programmes as for the demand of secondary agricultural sector.
- Develop robust market linkages and improve infrastructure for transportation, cold storage units, warehouses, and processing centers to reduce postharvest losses and ensure the availability of quality produce throughout the year. Strengthen market information systems to help farmers make informed decisions.
- KVKs should actively collaborate with research institutions and industry partners to identify and disseminate the latest technologies relevant to secondary agriculture
- Engagement in market intelligence activities to identify emerging trends, consumer preferences, and market demands for value- added agricultural products has potential to facilitate market linkages for farmers and processors, connecting them with potential buyers, exporters, and value chain stakeholders.
- Assistance in branding and marketing strategies, institutional credit, low- cost skilling contextualized to local needs, knowledge-based exposure of farm communities, incubation facilities, specialized enterprise centric extension services at rural level on fast-track basis in secondary agriculture and processing be given the priority sector status. Establishing Information, Innovation and Incubation Centre' (i3C) at a suitable location, will give a big boost to entrepreneurship development in secondary agriculture.

Policy initiatives and Institutional Role

- Establishment of "Krishi Nyayalaya" for speedy disposal of issues related to agriculture and allied enterprises.
- Institutional framework can be created to support the promotion advocacy and connection between secondary and tertiary sectors of business. Unification of farm universities and allied sciences with multidisciplinary

approach for strengthening Teaching-Research-Extension for the benefit of all stakeholders. Creation of convergence platform with state line departments for strengthening extension education and extension service delivery mechanism and Establishment of All India Coordinated Research Project in agricultural extension is the need of the hour.

- Systematic analysis of the influence of policies related to ease of doing business, taxation, land acquisition, intellectual property rights, and sector specific regulations on entrepreneurial activities and outcomes need to be prioritized involving social science disciplines for widening the horizons of extension research under the umbrella of multidisciplinary research.
- Policymakers should simplify loan procedures, develop specialized financial products, and promote alternative financing mechanisms such as microcredit schemes and venture capital funding for secondary agriculture.

Gender Mainstreaming

- Extension approaches should be gender sensitive and check points should be followed while implementing extension methods for farm women for effective output. Women farmers should be encouraged in decision-making processes through the formation of women's farmer groups, exploration of gender dynamics in agricultural entrepreneurship and barriers and opportunities for women entrepreneurs.
- Farmer should make use of various government schemes like PMFME, Sampada yojana and more emphasis should be given on women capacity building programmes especially for nutritional and health benefits to the health conscious consumer
- Governments and other stakeholders should work towards creating an enabling environment for women farmers. This can be achieved through policy interventions, such as gender-responsive budgeting, and by addressing social and cultural barriers that limit women's participation in agriculture and rural development.

The ISEE Awards

Various awards instituted by the Indian Society of Extension Education were conferred to the extension professionals/educationists in recognition of their meritorious works & services to the following recipients:

Life Time Achievement Award

- Dr. U S Gautam, President ISEE & DDG (Extension), ICAR, New Delhi
- Dr. S V Suresha, Vice chancellor, UAS, Bangalore

Dr. D. K. Mishra Memorial Award

- Dr R.N. Padaria, Joint Director, IARI, New Delhi

Dr. G. S. Vidyarthi Memorial Award

- Dr. Y N Shivalingaiah, Professor and Head, UAS, Bengaluru

Dr. K. N. Singh Memorial Award

- Dr S S. Dolli, Professor and Head, UAS, Dharwad

Dr. O P Dahama Memorial Award

- Dr. Souvik Ghosh, Professor, Viswa Bharati, West Bengal

Dr Y P Singh Memorial Award

- Dr Basavaprabhu Jirli, Director, CMDR, GOI. Dharwad.

Best KVK Scientist Award

- Dr S.K Badodiya
- Dr Ritesh Dube
- Dr Rahul Kumar Singh
- Dr. Mandeep Sharma
- Dr. Shiva Shantanu Singh
- Dr Noorjehan A.K.A.Hanif
- Dr. J.B. Dobaria
- Dr Upesh Kumar

ISEE Fellow Award

- Dr. Bhanu P. Mishra
- Dr. Amulya Kumar Mohanty
- Dr. M.L Meena
- Dr. Subhodeep Roy
- Dr. K. Ravi Shankar
- Dr. R. Venkattakumar
- Dr. Nagaratna Biradar
- Dr. J. B. Patel
- Dr. B. L. Manjunath

Young Scientist Award

- Dr. Kamini Bisht
- Dr. Aparna Roy
- Dr. P. Mooventhan
- Dr. Sanjit Maiti
- Dr R. Vinay Kumar
- Dr. Itigi Prabhakar
- Dr.V. Jyothi
- Dr. C. M. Savitha
- Dr. H. M. Vinaya Kumar

General impressions

The national level seminar was organized with a focus on secondary agriculture promotion and evolving policy for better extension management. There was an overwhelming participation from students, scientists, NGOs, FPOs and farmers. There was a multifaceted collaboration with institutions like NABARD, APEDA, ATARI-KVKs, KAPPEC, MANAGE, CFTRI, KMF, AICRP, IFFCO and CoE on Millets which brought vibrant colours to the seminar.

The presence of Dr. Ashok Dalwai, CEO, National Rainfed Area Authority, MOA & FW, GoI and Dr. P.

Chandrashekara, DG, MANAGE, Hyderabad in the inaugural programme and the august presence of Sh. Cheluvayaswamy, Hon'ble Minister for Agriculture, Govt. of Karnataka and Dr. S.V. Suresha, Hon'ble Vice Chancellor, UAS Bangalore in the valedictory programme motivated the achievers who were bestowed with various ISEE Awards. Reputed scientists, academicians, educationists and researchers presented their professional works in plenary and technical sessions of the seminar which provided the lead for the future endeavors of the extension professionals. The presence of Dr. P. Das (Former DDG) Dr. A. K. Singh (Former DDG), Dr. V. V. Sadamate (former advisor, Planning commission) Directors of ICAR-ATARIs namely; V. Venkatsubramanian, Anjani Kumar, S. K. Dubey, S. R. K.

Singh, A.K. Mohanty, S.K. Roy, Parvender, Sheikh Meera; the two ADGs (Ext); Dr. M. M. Adhikary, Dr. G. Eswarappa, Dr. Veerbhadaria, Dr Gangadharappa and many others helped to shape the seminar proceedings smooth.

Important issues for professional improvement were deliberated in the Annual General Body Meeting held on 22.06.2023 evening and it took the decisions that would further strengthen the ISEE functioning. The seminar was attended by students, researchers, academicians, scientists, extension professionals, NGOs, FPOs, financial institutions, research organizations and policy makers, etc. and in overall the national seminar provided an excellent platform for extension professional congregation and professional engagements who came from all over the country.