



MANAGE Agricultural Extension “Evening4Learning (E4L)” Webinar Series



Topic : “Transforming Agricultural Extension: Research Priorities and Perspectives”



Schedule:

20-11-2022, 19:30-20:00 PM



About the Program

The MANAGE Agricultural Extension “Evening4Learning” Webinar Series is aimed at enhancing knowledge and professional engagement in the field of agricultural extension. The twelve-day series is structured with each day focusing on a distinct topic under a common theme, allowing participants to gain comprehensive insights into key areas of extension. The program is intended for a diverse audience, including postgraduate and doctoral students, agricultural faculty, and industry professionals. It covers broad themes ranging from entrepreneurship and sustainability to emerging technologies in agriculture.



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MANAGE
Agricultural Extension
Webinar Series
(Online)

19-30 November 2022
19.00-20.30 pm (IST)

Agricultural Extension
To meet the new challenges in the agri-food systems



Speaker

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 Saravanan Raj

About the Speaker

Dr. Saravanan Raj is the Director (Agricultural Extension) at MANAGE, Hyderabad. He heads the Centre for Agricultural Extension Innovations, Reforms and Agripreneurship (CAEIRA) and serves as the CEO of MANAGE–Centre for Innovation and Agripreneurship (CIA), a Centre of Excellence in Agri-Business Incubation and knowledge partner for implementing the RKVY-RAFTAAR scheme of the Government of India. He is also working as the CEO of MANAGE–Fisheries Innovation and Startup Hub (MANAGE–FISHub), a national-level incubation and innovation hub established with the support of the Department of Fisheries (DoF), Ministry of Fisheries, Animal Husbandry and Dairying (MoFAHD), Government of India. He specializes in public-private extension, privatization of extension services, institutional pluralism, ICTs and digital media in agricultural extension, extension innovations, and agri-startups and policy issues. With extensive experience in agricultural extension, innovation, and entrepreneurship development, he has played a key role in promoting digital and market-oriented extension approaches and strengthening the agri-startup ecosystem in India.

Introduction

The importance of continuous research in agricultural extension is essential for understanding emerging challenges, changing farmer needs, evolving agri-food systems, and transformations in extension approaches. Agricultural extension is no longer confined to the linear transfer of technologies from research institutions to farmers. Instead, contemporary extension systems are increasingly becoming pluralistic, demand-driven, market-oriented, participatory, digitally enabled, climate-responsive, and innovation-focused.

It was emphasized that research priorities vary according to the mandate and institutional context of different organizations. At the global level, major research areas include food security, evolving agri-food chains, rural producer empowerment, Information and Communication Technologies (ICTs), climate change, extension financing, pluralistic extension systems, and monitoring and evaluation. In the Indian context, emerging research priorities include natural and ecological farming, Farmer Producer Organizations (FPOs), agri-startups, public-private partnerships, youth engagement, policy research, and evaluation of agricultural extension programmes.

Major Global Research Priorities in Agricultural Extension

Globally, agricultural extension research is increasingly focused on issues that influence food systems, rural livelihoods, farmer empowerment, and the effectiveness of advisory services. Major research priorities include:

- Food security and nutrition
- Transformation of agri-food chains and market systems
- Rural producer empowerment and collective action
- Farmer Producer Organizations and other producer organizations
- ICTs and digital agricultural extension
- Climate change and climate-resilient extension
- Pluralistic and demand-driven extension systems
- Market-oriented agricultural advisory services
- Innovative financing mechanisms for extension
- Monitoring, evaluation, learning, and impact assessment

These areas reflect the changing role of extension from technology dissemination towards facilitation, knowledge co-creation, innovation management, market linkage, and empowerment.

Reorientation Towards Pluralistic and Demand-Driven Extension

A major research priority is understanding how extension systems can be reoriented from predominantly public-sector delivery towards pluralistic extension systems involving public and private organizations, civil society organizations, farmer organizations, agri-businesses, consultants, media, startups, and other knowledge providers.



Research can examine:

- Effectiveness of pluralistic extension systems
- Demand-driven and farmer-centred advisory services
- Public–private partnerships
- Institutional coordination and convergence
- Accountability mechanisms
- Decentralized extension systems
- Financial sustainability of extension organizations
- Linkages among research, extension, markets, and farmers
- Networks and partnerships among extension stakeholders

Such research can generate evidence for strengthening national and sub-national extension policies and institutional arrangements.

Innovative Financing of Agricultural Extension

Traditionally, agricultural extension has relied substantially on public-sector financing. However, new approaches involving private investment, co-financing, partnerships, and innovative financing mechanisms are emerging.

Research priorities include:

- Alternative financing models for extension
- Public–private financing mechanisms
- Cost-sharing and co-financing models
- Financial sustainability of extension organizations
- Financing of digital advisory services
- Effectiveness and equity of different financing arrangements
- Evidence from such studies can support the development of sustainable extension financing systems.

ICT and Digital Agricultural Extension

ICT-based extension has remained an important research area for more than two decades. With the rapid expansion of digital agriculture, the research focus is moving beyond simple technology adoption towards understanding the effectiveness, inclusiveness, scalability, and sustainability of digital advisory systems.

Potential research areas include:

- Digital agricultural advisory services
- Mobile-based extension
- Social media and mass media for agricultural communication
- Artificial Intelligence-enabled advisory systems
- Digital platforms and farmer databases
- Digital inclusion and exclusion
- Farmer access to, trust in, and use of digital information
- Digital literacy and capacity
- Effectiveness of ICT-mediated extension
- Integration of digital tools with conventional extension systems



Research should also examine whether digital innovations are reaching smallholders, women farmers, youth, and other underserved groups.

National Research Priorities in Agricultural Extension

Natural Farming, Ecological Farming, and Knowledge Co-Creation

The increasing interest in natural farming, ecological farming, organic farming, and other alternative approaches has created new research opportunities for agricultural extension.

The traditional extension model largely followed a linear pathway:

Research Institution → Extension System → Farmer

However, ecological and natural farming practices often involve substantial farmer knowledge, local experience, experimentation, and adaptation. Therefore, extension needs to support processes of co-creation and co-innovation of knowledge.

Research priorities include:

- Farmer knowledge and indigenous practices
- Farmer-to-farmer extension
- Community-based extension
- Participatory technology development
- Co-creation and co-innovation of knowledge
- Farmer experimentation and innovation
- Role of farmer groups as knowledge providers
- Effectiveness of peer learning
- Extension approaches for ecological and natural farming

This represents a shift from the extension professional being primarily a technology messenger to becoming a facilitator of knowledge and innovation processes.

Farmer Producer Organizations and Rural Producer Empowerment

Farmer Producer Organizations (FPOs) and other producer organizations are increasingly important mechanisms for collective action, market participation, value addition, and rural producer empowerment.

Research can examine:

- Farmer mobilization and group formation
- Leadership and group dynamics
- Governance and institutional management
- Capacity development of FPO members and staff
- Collective marketing and procurement
- Value addition and branding

- Market and consumer linkages
- Financial management
- Digital platforms for FPOs
- Partnerships with public, private, and civil society organizations
- Innovation systems surrounding FPOs

Particular attention is required to understand why some producer organizations develop sustainable operations while others face difficulties. Research on leadership, networks, institutional linkages, multi-stakeholder partnerships, and innovation ecosystems can provide useful evidence.

Agri-Startup and Innovation Ecosystems

The emerging agri-startup ecosystem represents another important research frontier. Agri-startups are introducing new technologies, services, business models, and employment opportunities across the agricultural sector.

Research priorities include:

- Business models adopted by agri-startups
- Technology and innovation dissemination
- Farmer adoption and use of startup-led services
- Startup–farmer linkages
- Startup–extension institution collaboration
- Startup–research institution partnerships
- Employment and entrepreneurship generation
- Contributions to farmer income and livelihoods
- Public–private partnerships
- Scaling of agricultural innovations

Research can also explore how agri-startups can be integrated with traditional extension institutions and research organizations to create complementary rather than isolated innovation systems.

Organizational Performance

Agricultural extension is increasingly delivered through a diverse institutional ecosystem. Therefore, research is required to understand the performance of:

- Public extension organizations
- Krishi Vigyan Kendras (KVKs)
- Farmer Producer Organizations
- Non-Governmental Organizations (NGOs)
- Civil Society Organizations (CSOs)
- Agri-startups
- Agri-business firms
- Community-based organizations
- Private advisory providers

Research can assess organizational effectiveness, human resource capacity, service delivery mechanisms, innovation practices, partnerships, and institutional sustainability.

Youth, Gender, and Inclusive Extension

Youth engagement is emerging as an important national research priority because of concerns regarding generational renewal in agriculture, changing aspirations, and migration from agriculture.

Research areas include:

- Youth participation in agriculture
- New-generation farmers
- Youth entrepreneurship
- Digital agriculture and youth
- Skill and capacity requirements
- Factors influencing youth retention in agriculture
- Youth-led agricultural enterprises

Similarly, gender-responsive extension research can examine women's access to information, decision-making, resources, markets, technology, producer organizations, and entrepreneurship opportunities.

Climate-Smart Extension

Extension research is increasingly moving beyond production technologies towards climate resilience and value-chain development.

Climate-related research can examine:

- Climate risk communication
- Climate-smart agriculture
- Weather-based advisories
- Farmer adaptation strategies
- Early-warning systems
- Risk management
- Climate-resilient technologies
- Institutional preparedness

Value-Chain Extension

Value-chain extension focuses on connecting farmers with input suppliers, processors, markets, financial institutions, and consumers.

- Research areas include:
- Market-oriented extension
- Value-chain coordination
- Market information systems
- Value addition
- Branding and quality management
- Consumer linkages
- FPO-led value-chain development

Monitoring, Evaluation, and Impact Assessment

Continuous evaluation of agricultural development programmes and extension interventions is a major research requirement. Government departments, development agencies, donors, and implementing organizations require evidence regarding the effectiveness and outcomes of programmes.

Research can focus on:

Inputs → Outputs → Outcomes/Effects → Impact

Studies may examine:

- Programme implementation
- Beneficiary coverage
- Service delivery
- Asset creation
- Employment generation
- Income and livelihood effects
- Behavioural and technological changes
- Sustainability of interventions
- Cost-effectiveness
- Institutional performance
- Long-term impacts

Monitoring, Evaluation, and Learning (MEL) approaches can further help institutions use evidence for programme improvement, learning, adaptation, and scaling.

Research Areas in Agricultural Extension

Governance, Advisory Methods, and Capacity Development

Agricultural extension research can be broadly organized into three interconnected areas: governance, advisory methods, and capacity development.

Governance

Research may examine:

- Financial sustainability
- Accountability
- Decentralization
- Public–private partnerships
- Multi-stakeholder coordination
- Institutional networks
- Research–extension–farmer linkages
- Performance of decentralized extension systems

Advisory Methods

Emerging advisory approaches include:

- Farmer-to-farmer extension
- Community-based extension
- Farmer Field Schools
- Farmer organizations
- Innovation platforms
- Digital advisory systems
- ICT and mass media
- Multi-stakeholder learning platforms

Research should assess their effectiveness, inclusiveness, scalability, and complementarity with conventional extension.

Capacity Development

Research is also required to identify the changing competencies of:

- Extension professionals
- Knowledge intermediaries
- Farmers
- FPO members and managers
- Community organizations
- Digital service providers

Capacity-needs assessment, competency development, performance assessment, and organizational learning can contribute to stronger extension systems.

Knowledge Management and Innovation Systems

Modern extension systems generate and exchange large volumes of information. Consequently, knowledge management has become an important research area.

Studies can examine the complete knowledge cycle:

Knowledge Generation → Documentation → Validation → Dissemination → Adoption/Use → Feedback → Learning

Research can also investigate Agricultural Innovation Systems (AIS) and the relationships among farmers, research institutions, extension organizations, businesses, civil society organizations, startups, and policy institutions.

The focus is therefore shifting from individual technology transfer towards understanding networks, interactions, partnerships, learning processes, and innovation ecosystems.

Policy Research and Evidence-Based Extension

Policy research was identified as an important but comparatively underutilized area within agricultural extension research. Policies related to FPOs, agri-startups, digital agriculture, natural farming, climate resilience, and extension reforms require systematic assessment.

Research can examine:

- Policy implementation
- Policy coherence
- Institutional mechanisms
- Enabling and constraining factors
- Policy outcomes
- Implementation gaps
- Stakeholder perceptions
- Evidence for policy modification

Policy reviews and implementation studies can generate evidence on what is working, where gaps exist, why implementation varies, and what institutional changes may be required.

Advocacy and Policy Engagement

Agricultural stakeholders increasingly use advocacy to communicate field-level concerns to decision-makers. Research can examine:

Advocacy strategies used by farmer organizations

- Civil society and NGO advocacy
- Evidence-based policy communication
- Farmer feedback mechanisms
- Stakeholder engagement
- Effectiveness of different advocacy approaches
- Pathways for translating field evidence into policy

This can strengthen the connection between field-level experiences, research evidence, and policy processes.

Major Research Priority Framework

Broad Research Area	Emerging Research Focus
Food security	Sustainable food systems, nutrition, and livelihoods
Extension systems	Pluralistic, demand-driven, and market-oriented extension
Rural empowerment	FPOs, collective action, and producer organizations
Digital extension	ICTs, AI, digital platforms, and digital inclusion
Natural farming	Knowledge co-creation, farmer innovation, and peer learning

Agri-startups	Innovation ecosystems, business models, and scaling
Climate change	Climate-smart extension, adaptation, and risk management
Governance	Partnerships, accountability, and decentralization
Financing	Public-private financing and innovative financing models
Advisory methods	Farmer-to-farmer, FFS, community, and digital approaches
Capacity development	Competencies of extension professionals and farmer organizations
Knowledge management	Knowledge generation, sharing, use, and institutional learning
Value chains	Market linkages, value addition, branding, and consumer connections
Monitoring and evaluation	Programme performance, outcomes, impact, and learning
Organizational performance	KVKs, FPOs, NGOs, startups, and private advisory
Youth and gender	Inclusive participation, entrepreneurship, and new-generation farmers
Policy research	Policy implementation, evidence generation, and policy gaps
Advocacy	Stakeholder engagement and translation of field evidence into policy

Emerging Role of Extension Research

The nature of extension research is changing along with the extension system itself. Earlier research largely focused on technology adoption, communication channels, and dissemination of innovations. Contemporary research increasingly addresses systems, institutions, networks, markets, innovation ecosystems, digital technologies, climate resilience, collective action, policy, and outcomes.

The changing research orientation can therefore be represented as:

Technology Transfer → Farmer-Centred Extension → Pluralistic Extension → Innovation Systems → Digital and Networked Extension → Outcome- and Evidence-Oriented Extension

This transformation requires extension researchers to adopt interdisciplinary and participatory approaches and work closely with farmers, producer organizations, government institutions, private organizations, startups, civil society organizations, researchers, and policymakers.

Key Highlights

- **Emerging Research Priorities:** Agricultural extension research is expanding beyond technology transfer to address food security, agri-food systems, rural producer empowerment, climate change, digital agriculture, and evolving advisory systems.
- **Pluralistic and Demand-Driven Extension:** Increasing attention is being given to pluralistic, farmer-centred, market-oriented, and demand-driven extension systems, involving public, private, civil society, farmer organizations, startups, and other stakeholders.
- **Digital and Innovative Extension:** ICTs, artificial intelligence, digital platforms, and innovative advisory methods are emerging as major research areas, with emphasis on effectiveness, inclusiveness, scalability, digital literacy, and access among underserved groups.
- **FPOs, Agri-Startups, and Innovation Ecosystems:** Research opportunities are expanding around Farmer Producer Organizations, agri-startups, collective action, value chains, innovation systems, partnerships, and new business models for strengthening farmer livelihoods and agricultural enterprises.
- **Climate-Smart, Sustainable, and Inclusive Extension:** Growing research attention is being given to natural and ecological farming, climate-smart agriculture, youth, gender, farmer knowledge, and co-creation of knowledge, requiring extension professionals to move from technology dissemination towards facilitation and innovation.
- **Evidence-Based Extension and Policy Research:** Monitoring and evaluation, organizational performance, governance, financing, capacity development, knowledge management, policy research, and advocacy are important for generating evidence to improve extension programmes, institutions, and policies.

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YouTube Link:
<https://youtu.be/zomYNqdFMB8?list=PLcfEugbo2RL0&t=2451>

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