



# Agricultural Extension: **TIME TO CHANGE**



National Institute of Agricultural Extension Management (MANAGE)  
(An organisation of Ministry of Agriculture and Farmers' Welfare, Govt. of India)  
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## **About the Publication**

This publication is result of the discussions held during the three day National Workshop on “Agricultural Extension: Time to Change” conducted as a launching programme for “MANAGE-University Alliance for Advancing Agricultural Extension” by National Institute of Agricultural Extension Management, Hyderabad from February 14-16, 2018 with the objectives to understand the evolution of extension curricula through the years and initiating dialogue on future directions; delineate the status of extension research in India to influence policy and development dialogue; and address the extent of integration of field extension experiences and innovations in research and curricula.

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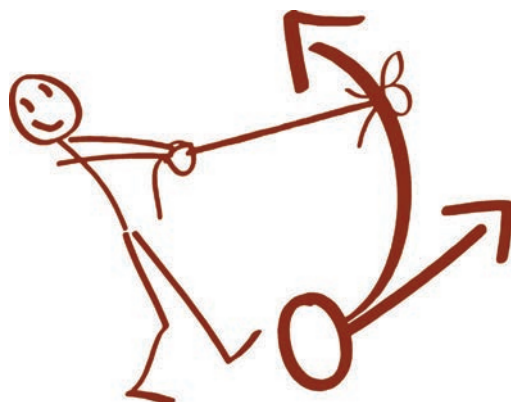
MANAGE-University Alliance for Advancing  
Agricultural Extension and Advisory Services

National Workshop on

**Agricultural Extension:  
TIME TO CHANGE**

February 14-16, 2018

MANAGE, Hyderabad



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## Agricultural Extension: Time to Change

Agricultural Extension and Advisory Services (AEAS) in India started in a major institutional form with the Community Development Programmes in the 1950s. In the 1960s, the focus shifted to increasing agricultural production, taking the country out of the clutches of frequent famine threats and becoming self-sufficient in food grain production. AEAS, during those times, concentrated mostly on Transfer of Technology (ToT). While the green revolution was successful in increasing production of rice and wheat in a few irrigated areas in the country, more complex challenges came to view with time.

### EVOLVING EXTENSION

- Evolving, collaborative, bottom-up development
- Gradual entry of the private sector, increased focus on value chain extension
- Introduction of concepts of innovation, incubation, start-ups
- Promoting farming as a business model rather than a mere act of subsistence
- New responses to new challenges like climate change, nutrition security, natural resource management, and so on

### CURRICULUM MISMATCH

- Widening mismatch between the university curricula and its relevancy in the field
- Integration of the ever-changing field-level developments and innovations are minimal
- System imparting required soft skills, functional skills, and specialized skills to the students of extension education is either ill-developed or non-existent

### IRRELEVANT RESEARCH

- The current research, in most cases, is a repetition of studies already conducted and fails to contribute to the advancement of theory or practice of AEAS.
- Research at the university level does not contribute much to policy making
- Evidence-based policy advocacy requires designing research to address current gaps in AEAS

### SILOED, UNDOCUMENTED EXTENSION

- Lack of proper documentation of extension activities of Universities, KVKs, line departments and NGOs
- Many good practices are confined to small areas and are eventually lost without being scaled up
- Efforts to share experiences, methodologies and innovations have also been limited

## MANAGE-University Alliance for Advancing Agricultural Extension

**Focus:** Forming a Consortium for Development Dialogue on AEAS for revamping existing curricula in extension education, identifying major thrust areas for extension research leading to evidence-based policy suggestions, increasing research competence through good practices workshops, documenting field innovations and communicating them to suitable stakeholders, and formulating field extension models and sharing the best fit models.

### Inauguration: The first step to a better future

Agricultural Extension is not just another discipline; rather it is the only discipline that spans equally across classroom, research labs and the farm and family of the rural people. The importance of Agricultural Extension is immense, the scope is huge, and possibilities are tremendous. But that's the past and the future. Right now, things can be better, and so, it is time to take stock and shoulder responsibilities to make the Agricultural Extension better in theory and practice. Against this background, National Institute of Agricultural Extension Management (MANAGE) embarked on a multi-stakeholder dialogue on 'Agricultural Extension: Time to Change' from February 14-16, 2018 at MANAGE, Hyderabad with the following key objectives:

1. Understanding the evolution of extension curricula through the years and initiating dialogue on future directions
2. Delineate the status of extension research in India to influence policy and development dialogues
3. Address the extent of integration of field extension experiences and innovations in research and curricula



## **DIRECTOR GENERAL'S MESSAGE**

“ A huge effort is being invested in capacity development by MANAGE during last 30 years, but has there been an attitude change? Or increase in commitment and accountability? Has the behavior change intended, achieved? If not, why? The answer lies in the education system.

Knowledge, skill, and character is built during graduation, post-graduation. Unless education changes with time, the curriculum keeps pace with changing times, we will not be able to do justice to the profession.

Universities play an important role worldwide in extension. They conduct research, advocate policies, and develop extension models. But in India, the activities are taken up in silos by ICAR, Universities and state departments respectively, without much collaboration or engagement. Policies are more feel-good than do-good. There are hardly any debate on policy influence on the life of the billions.

All these have led to the idea to contribute in concrete terms. Extension requires innovation based on social context. An extension personnel should have technical knowledge but should also be able to communicate, convince and bring change. The journey to take extension forward needs to start somewhere, and this workshop is an initiation of that change that we all have been talking about and waiting for.



**Smt. V. Usha Rani, IAS**  
Director General, MANAGE





## Curriculum in Agricultural Extension – When was the last evolution?

Extension has evolved from its linear model to multi-stakeholder collaborations in innovation systems with advent of unique situations, agripreneurial innovations, Information and Communication Technologies (ICTs), increased focus on competencies and so on. But the curriculum has not changed effectively in the last few decades. The development sector though, has evolved faster and the new demands cannot be fulfilled by the existing education system. Frontline extension system, which was the glory in the past, have been reduced to routine activities of training and demonstrations. Development like incubation, agripreneurship, natural resource management extension, agrotourism, social skills, etc. are not incorporated in the education curriculum, leaving the new generation of extension professionals unprepared to deal with the farming community altogether.



**Dr. Saravanan Raj**  
Director (Agricultural Extension), MANAGE

We cannot be emotionally attached to our past glory but need to evolve with changing times and grow with the learnings from the past experiences. A whole generation of extension professionals are coming out of universities underqualified to fit in the emerging job markets because of the restricting education system. Extension courses have reduced, the curriculum has lost touch with the market demands, and research only produces degrees with almost no practical applicability or policy implication.



A complete overhaul of the curricula is the need of the hour. Several consultations, publications, and blogs have been reiterating the need for changing curriculum since long. ICAR appointed Deans' Committee is responsible for revision of the Under Graduate (UG) curricula in India. While voices of students and young researchers have also been getting stronger for a curricula reform, they have hardly made any dent at the higher levels. Introduction of flexibility in the curricula is also important.



**Dr. Rasheed Sulaiman V**  
Director, CRISP

We need to look at the core competencies that are expected from the graduates and work backwards from there to make the curricula functional. We need to benchmark our standards globally.





**Dr. Murari Suvedi**  
Professor,  
Michigan State  
University, USA

Importance of innovation in agricultural extension is not prioritised enough in the existing curriculum or in their administration. Out of the box thinking can only be a saving grace in today's conditions.



UG curricula and its contents is a hotch-potch of communication, sociology, and writing skills with little relevance to changing context and new roles to be played by extension professionals. There has also not been much change in curricula from the 2<sup>nd</sup> Deans' Committee to the 5<sup>th</sup> Deans' Committee. In development studies and related institutes, the course booklets and prospectus clearly states the course objectives, skills they will impart and the ultimate aim of the course, which is again missing in extension curriculum at UG, PG, or PhD level. The curriculum is limited to 'Introduction to' and 'Basics of' which is not very desirable for potential employers in the development sector.



Collective action approach with common but differentiated responsibilities and respective capabilities are essential to ensure sustainable growth.

**Dr. Sagar K. Wadkar**  
Assistant Professor, TISS, Mumbai



Core competency domains are needed to be identified and prioritized based on requirement and context. Exercises on how to develop the required core competencies needs to be identified and implemented. Research based knowledge sharing experiences also needs to be encouraged. Emphasis should be on becoming un-biased professionals.



While agriculture has achieved the professional status, professionalism is yet to reflect in teaching methodology, curricula, or professional work culture in Indian extension fraternity. Extension organizations and departments' role has been reduced mostly to event management. Practical application of extension, its role and purpose should be introduced at the very beginning during UG level. Many of the courses also need a complete revision of content based on the market demand. Teaching methodologies need reevaluation as well based on practical orientation and enhancing analytical capabilities of the students.



**Dr. Sethuraman Sivakumar P**  
Principal Scientist,  
ICAR-CTCRI

What does quality research in extension mean? The degree to which extension research contributes to professional development in extension.



Research quality can impact professional development by developing new knowledge, approaches, methods, and tools to address the emerging challenges on a sustained basis to improve working standards and impact performance. Professional working standards needs to be developed through research, content as well as delivery of content of extension curricula needs to be updated for doing proper justice to extension education and research.

Curriculum in research methodology, while strong in basics, lacks practical hands-on experience which limits its application. Also, while much of the extension research deals with measuring psychological constructs, they are actually defined and measured quite loosely because of lack of understanding of the subject, leaving them redundant. Having influential individuals with limited expertise as part of curriculum formation committees instead of handpicked experts and potential officials, have left curriculum designing a mere visionless activity.

In both Fisheries and Veterinary Sciences, while Post Graduate (PG) curricula is similar to that of Agriculture, they are adapting to the changing rural socio-economic forces which has influence on integrated service delivery. While 'Day 1' skills are yet to be assessed and incorporated in the curricula, efforts to integrate process competencies are already underway. Application of technical competencies needs more focus with practical orientation in the courses. In training curricula too, need assessment and integration of required core competencies are important, which at the current level, is not very encouraging. While all the required competencies cannot be introduced in the UG or PG curricula, based on job roles strong induction and in-service programmes are required with well-structured curriculum.



**Dr. P. V. K. Sashidhar**  
Director, School  
of Extension and  
Development  
Studies, IGNOU

Technical competencies will get the job done; process competencies will produce leaders.



## Group Exercise

Core extension competencies needed among agricultural graduates and postgraduates in agricultural extension, identified through group work by the participants

### UG Level

#### Social skills

- Communication skills
- Good listening
- Rapport building

#### Management skills

- Decision making
- Time management
- Group mobilization
- Need assessment
- Conflict management
- Programme planning, execution, evaluation
- Mobilization and group dynamics

#### Technical skills

- Entrepreneurship
- ICTs
- Negotiation skills
- Data collection, analysis, report writing
- Participatory methods
- Stakeholder analysis
- Value chain and trade
- Contemporary issues- gender, climate change, sustainability issues
- Policy facilitation
- Understanding different developmental programmes and issues
- Risk analysis
- Entrepreneurship development

### PG Level

#### Management skills

- Analysing situations- perspectives, development potential, socio-economic status, agro ecosystem analysis
- Group mobilization- social capital, group dynamics, gender, rural leadership
- Project formulation- feasibility, revenue models
- Programme planning- communication skills
- Programme execution
- Programme evaluation- analytical and comprehensive skills

#### Technical skills

- Research methodology- social sciences, development, market
- Entrepreneurship- enterprises, market led extension
- Media, communication, ICTs- content development, instructional technologies
- Information technology

(Also refer: Bhatt, A., Raghuvanshi, R., and Sreelakshmi, C. 2018. My Meeting Notes: National Workshop on Agricultural Extension in India: Time to Change. <http://www.aesa-gfras.net/admin/kcfinder/upload/files/AESA%20MEETING%20NOTE%2062%20MAR%202018%281%29.pdf>)

## MAJOR TAKEAWAYS

- Development agencies and prospective employers need to be part of the discussion for reforming curricula
- Teachers needs to be equipped for proper administration of course curriculum, especially for core competencies and research methodology
- Research based knowledge sharing experiences should be encouraged
- CSR funds needs to be brought in agricultural and rural development
- Entry and exit test, currently incorporated in medical courses, should also be incorporated in veterinary education

## **SPECIAL SESSION**

### **University Education, Research and Extension: The academicians' perspective**

#### **Curricular issues**

- Mismatch between the demand of employers and the current curriculum
- Specialization in curricula will also help in reducing the number of students that drift off from development sector where they have to compete with graduates with specialization

#### **Functional difficulties**

- Promotion and marketing of the graduates is not happening
- Most Directors of Extension (DoE) are from non-extension background
- Extension personnel are facing tough competition for SMS positions in KVKs, they are not considered indispensable candidates for SMS post
- Role of extension professionals in KVK needs to be articulated properly and specialised competencies are required to be inculcated
- Many ICAR institutes have scientists with expertise that can produce good student research but they are not recognised by Universities as guides and the potential goes unutilized.

#### **Good practices**

- Institutional convergence for absorbing research scholars and developing research partnership exist in Kerala to some extent, especially with CTCRI



## **Q&A**

### **1. What model should be followed for a uniform service delivery in veterinary extension?**

- Ideal will be a separate cadre but it is not possible due to lack of human resource. District level office of Joint Director can coordinate directly
- Majority of the students are not oriented towards extension and takes it as 3rd preference at best. As state veterinary officers, extension is part and parcel of the job.
- Burden is also increased on animal healthcare

### **2. Field veterinarians have different job titles in different states and that results in lack of proper understanding of duties.**

- As the degree is animal science and animal husbandry, extension should be part and parcel of the job, irrespective of the job title

### **3. Regarding Research Methodology, sample size becomes important. Scales are not used, only made. So what is the solution?**

- Scale development is a specialized task. But ones developed as part of Masters or PhD research are not rigorously made following scientific methods, and so cannot be used in following scientific research.

### **4. We consider farmers as consumers. Lot of market research in consumer preference is done in other areas but not in agriculture. Why?**

- Agriculture is Business to Business (B2B), farmers are not consumers, just intermediaries. So, instead of market research, participatory research is conducted to understand farmer preference and technologies are developed accordingly. Market research (research prioritization) is needed for the consumer of agricultural commodities

### **5. Can we come out with a framework for PhD research, Master's research, and faculty research to guide research in extension systems?**

- A broad guideline exists but needs to be refined and included in thesis guideline.
- Systematic research in large projects and trying to understand the large scale working of extension systems can give broad ideas and systems perspective
- A task force and team needs to be formed to recommend future directions

### **6. How can competency be developed in research methodology?**

- Competencies of teachers needs to be increased on statistics and research methodology, how to analyse and how to interpret
- Statistical courses in IARI are being offered in collaboration with statistical institutes. Similar model may be followed in other institutes as well.
- Social psychology needs to be incorporated

### **7. How can MANAGE-University Alliance contribute to curriculum revision and development?**

- MANAGE is taking an advocacy role for influencing change of curriculum
- MANAGE-University Alliance is working on a moral mandate to give evidence based suggestions for required curriculum changes
- Good practices of the universities, wherever exists, will be identified and communicated
- Standardization of research design and facilitating collaborative initiatives in development of course content, specifically in research methodology





## Better Research for Better Extension



**Smt. V. Usha Rani, IAS**  
Director General,  
MANAGE

Because research background or evidence based policy recommendation is absent, policies fail to make any impact in the field level. Moreover, impacts of the programmes implemented are also not studied effectively, which hinders their further modification and ultimately, development. MANAGE, in a new initiative, is trying to collaborate with Agricultural Universities and ICAR institutes to collect technologies with low adoption rate to work with extension professionals on those technologies, train them, implement and refine them based on need and necessity. Extension research should be contemporary, problem solving, helpful to farmers and develop new models.



### A. What guides research activity in Extension?

- To develop or modify scientific theories and models which improve the impact of extension work on the user system.
- Develops sound intervention approaches/ models (technology, education, social, economic and communication) with high degree of replicability
- To enhance the professional outlook of extension discipline by effective management of programmes by applying ethical and professional standards.

### B. Problems in University extension research

#### (i) Narrow focus on the research problem

- Existing extension research focuses only on applying extension principles on solving the field problems without approaching the issues in a multi-disciplinary perspective.
- Research is often confined to academic journals and professional groups without benefiting its intended users.

#### (ii) Heavy reliance on exploratory approaches

- Extension research is considered as largely "ex-post facto". In a field-oriented discipline, this absence of the "manipulative capacity" produces results with limited ability to generalise.

#### (iii) Inappropriate methods and techniques

- Choosing a "right" research method for a specific research problem is a concern in extension science.
- There is tendency among innovative and enthusiastic researchers to rush into innovative research areas or using new methods without gaining adequate insights into the requirements and assumptions of these methods, resulting in a misfit into the research problem and reporting spurious relationships in a subjective way.

#### (iv) Poor quality research publications

- Ambiguous or inadequate titles
- The research methods and tools are inadequately explained in many research papers in the "Methods" section.
- Since extension research is conducted in a small universe which results in "location-specific" evidence, there is limited scope for generalizing results for a larger society.



Extension research needs to deal with panel data to understand how development happens over time and space. Cross sectional study based on the findings will be far more effective in planning development interventions and framing policies.

#### **Dr. Souvik Ghosh**

Professor, Deptt. of Agril. Extension, Agril. Economics and Agril. Statistics, Visva Bharati University



#### **C. How private sector research differs from the public sector?**

- Focus on solving the field problems and equipping the field extension personnel with new competencies required to address these problems.
- Action research approach is popular among private sector which is effectively used to solve problems while advancing knowledge.
- Considering the efficiency in addressing the field issues effectively, the private sector extension research generates good amount of revenue to the Institutions.

#### **D. What has been the status of policy influence by extension research?**

Though few extension researches conducted at the Universities have significantly influenced policies, majority of the University research has limited or no influence on development policies.

- The research areas are focusing more on field problems associated with a limited geographical area or narrow section of farmer groups
- The sample size of many research work is inadequate to generalize the results to a larger area
- Conducting research to influence policy requires work on specialized topics with specific research approaches and methods. The expertise to conduct such policy research is currently not available at the Universities.

#### **E. What is the status of research on Central Sector Schemes?**

Suggested focus areas of extension research on Central Sector Schemes (CSS).

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**Sl. No Central Sector Scheme Focus areas**

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1	ATMA	Training needs assessment of farmers and extension functionaries; organizational structure and performance; role of women in decision-making; effectiveness of research- extension- farmer linkages in ATMA system; constraints faced in managing ATMA and implementing strategic research and extension plan; impact of ATMA on stakeholders
2	AC&ABC	Factors affecting agricultural graduates participation in AC&ABC scheme; types and effectiveness of extension services provided to farmers; stakeholder analysis; critical success factors; entrepreneurial characters of agripreneurs; constraints faced by AC&ABC agripreneurs in developing and managing businesses; impact of extension services provided by Agriclincs to farmers

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**F. How can field extension benefit from research?**

Extension research in India was originally conceived as a platform to develop sound field methods to help the extension functionaries. However, the current system has little contribution in creating field extension methods as it is focused on short-term student oriented approach with limited applicability.



**Dr. P. Alageshan**  
Senior Scientist  
and Head,  
MYRADA KVK

KVKs across the country have some interesting extension models that they are continuously working on. MYRADA for one, highly involves the communities for implementation, students for research and development and collaborates with research organizations for technology refinement. Popularising such models and integrating them in state departments' activities will give better direction to future extension efforts.





**Dr. Mahesh Chander**  
Principal Scientist  
and Head, Division of  
Extension Education,  
ICAR-IVRI

The current extension system is not equipped to meet the requirements of the agripreneurs and innovative farmers, which makes the system partially redundant. The system is not equipped to address the problems of value chain as well. It is easy to raise expectations, but supporting business aspirations is a whole new game. Role of extension has moved beyond suggesting NPK doses. It needs to support innovation and be innovative. The question is, can we do all that with existing curricula in extension education?



## MAJOR TAKEAWAYS

- Providing opportunities to Universities to expand their research focus on Central Sector Schemes by developing a nation-wide project on network mode
- Developing guidelines for designing and implementing research methods courses with updated syllabi at PG and PhD levels
- Developing quality research methodology books, manuals and teachers' guides
- Providing opportunities for professional development by organizing trainings or workshop to address the deficiencies
- There is a need to develop a platform involving MANAGE, Universities, ICAR Institutes, KVKs, State extension departments and private agencies including NGOs, professional networks and societies for continuous exchange of ideas and expertise to conduct extension research to address the field problems, develop sound field methods and influence policy.
- The students' research at Universities may be expanded by involving stakeholders from MANAGE, ICAR Institutes, EEIs, SAMETIs, ATMA, KVKs, NGOs and state extension functionaries to make them relevant to field practice and also to address the field problems faced by farmers.

## Group Exercise

### How can field extension and policy benefit from University research?

#### Field extension

- Help in adopting best practice models for Transfer of Technology (ToT); redesign technologies; up scaling horizontal and vertical ToT; promote successful cases; product development and process adoption; redesign programmes and methodologies; help administrators for furthering extension programmes; help bureaucrats; reorient, redesign, and revisit for required policy frameworks.
- Bridging technology gaps and innovation validation
- Monitoring and evaluation of Central Sector Schemes (CSSs); develop innovative models of extension delivery
- Develop value chain models
- Communication of research findings to extension professionals

#### Policy

- Participatory agro-ecosystem based research can help with future planning and policy advocacy
- Development of new programmes and policies based on gaps identified by SAU research
- Evidence based research with communication the findings to policy makers
- Documentation, analysis, and synthesis of good practices in extension and review of policy implementation
- Panel data studies to influence policy

### How can MANAGE-University partnership for research be best implemented?

#### Collaborative activities

- Action oriented research projects and guiding area specific research based on University context and capacity
- Collaborative initiatives in Research Methodology
- Certificate/Diploma courses through Memorandum of Understanding (MoU)
- Associate with student research at University level through MoU
- Monitoring and reviewing research activity of universities
- Developing good practices in extension research
- MANAGE-University-Private player collaboration for developing extension models as well research proposals
- MANAGE can participate in Research and Extension Advisory Council meetings of the universities

#### Curricula reforms

- Justification and prioritization of research areas
- Advocating curricula development through detailed deliberations

## Capacity development

- Workshops/trainings on research methodology, research proposal writing, using software tools, etc.

## Focused activities

- Database of technologies and good practices formed and maintained by MANAGE
- Enable wide networking and cluster based approach for better technology transfer
- Organize national level professional meets and recognize outstanding research (essentially MSc and PhD) to communicate and inspire quality efforts in research and extension



## **SPECIAL SESSION**

### **Curricula, research and extension: Students' perspective**

#### **Course administration**

- Very few universities provide practical orientation in spite of some provision in the curriculum
- There needs to be orientation about career opportunities and student exchange programmes
- In veterinary extension, focus is on treatment, not prevention and extension
- Lacks practical orientation; technical knowledge is ignored, and soft skills are not imparted either
- Field trips mostly end up as entertainment tours
- Case studies and simulation techniques need to be practically introduced rather than only through lectures

#### **Curriculum**

- Need to build students as photography experts, media experts, editing experts, etc.
- Psychology and Sociology needs to be included in Masters and PhD level
- There is no orientation about why extension is important

#### **Competencies**

- Hands-on practice on data collection and analysis required
- Building skills gives special competence to students making them good professionals
- Soft skills indispensable for extension professionals are rarely inculcated

#### **Research**

- There is very less focus on context specific research, rather repetition of previous research
- Research methodology is mostly ignored, most of the universities either lack apt staff or don't emphasize much on its importance
- Students mostly lack understanding on how to identify research problems, faculties mostly doesn't help, research out of compulsion, rather than compassion

#### **Others**

- Faculty capabilities makes the major difference in student's capacity development , and so this needs immediate attention
- Funds are less in social science, students research are meagerly funded, scholarships are also limited
- Students currently chose extension either from compulsion or to prepare for other jobs; the glamour quotient is almost non-existent
- Making a level playing field for the candidates from every university to enter into the extension research by making the competitive exams more transparent, especially for Agricultural Research Service
- Students have no say in choosing advisors
- Student's feedback are rarely taken into account



**Dr. Suchiradipta  
Bhattacharjee**

MANAGE Fellow, MANAGE

The upcoming generations are important stakeholders in the process of change. As it is about them and how they actively take part in making a better future, their view, ideas, opinions and experiences needs to be heard and taken into account, especially so when the discourse is on extension education, research and field experiences.





## **SPECIAL LECTURE**

### **Changing Times, Changing Priorities: A Journey of Extension Research Curriculum, and University Extension Spanning Six Decades**

**Prof. V. Veerabhadraiah**

Former Director of Extension, UAS (B), & Emeritus Professor (ICAR), Bengaluru

#### **Changing agricultural context**

- 1. The purpose in farming is changing**
  - Subsistence farming system
  - Surplus farming system
  - Market farming system
  - Commercial farming system
- 2. The production base is degenerating**
  - Lack of vegetative cover
  - Soil erosion
  - Surface water bodies disappearing
  - Ground water level sinking
  - Uncertain rain fall
- 3. Aspirations of farm population are rising**
  - Rising literacy levels
  - Exposure to urban life
  - Availability of electronic media
- 4. Emergence of new technologies slackens**
  - "Technology Push" justifying the "Extension Push" is missing
  - Alternative farming practices like LEISA (Low External Input Sustainable Agriculture) approach is needed to sustain development
- 5. Capacity building becomes the Crux**
  - Farming is what farmer does?
  - All other stake holders in agriculture development are his enablers
  - Farmer is the end user of the natural farming resources, the new technologies and development opportunities around
  - Capacity building of large segment of farming population is necessary
  - Specific extension efforts are to be devoted to them

#### **Evolving Research, Curriculum and University Extension**

- 1. Pre-independence era (1900 and 1952)**
  - Individual and institutional efforts
  - Short duration
  - Lack of systematic planning
  - The experiences laid the road for country-wide extension system
- 2. Public sector extension efforts**
  - Community development was the primary focus
  - National Extension Service came into existence
  - Technology was the major focus of agricultural development
  - Social justice was given high importance
  - Organized efforts at development of Agricultural Research, Demonstration and Education at district level
- 3. Era of Agricultural Universities**
  - First agricultural university at Pantnagar
  - Further expansion of agricultural university in each state
  - Subsequent bifurcation into Veterinary and Animal Science University, Horticultural University, Fisheries University, etc.
- 4. University research curricula and extension: Way forward**
  - Curriculum need increased focus on evolving concepts and technologies
  - Research needs to be more scientific and based on needs of the society
  - Extension needs to be pluralistic, focus on HRD, and encourage agriprenurship



**Prof. V. Veerabhadraiah**  
Former Director of  
Extension, UAS (B), &  
Emeritus Professor (ICAR)

Agriculture development, indeed, has become essentially a shared responsibility between the farmers as producers and the Government as the enabler. Also, it is to be noted that the farmers themselves fall into two distinct groups – elites as wealth producers with commercial farming and the non-elites adopting livelihood farming. Future progress in the agriculture sector depends not only on improving the productivity of added inputs but more importantly, on the improved managerial abilities of both the farming segments.



**Dr. Murari Suvedi**  
Professor, Michigan  
State University, USA

#### Monitoring and Evaluation in Extension Research and Practice

- Need to enhance capacities related to monitoring, evaluation and impact assessment
- MANAGE in collaboration with alliance partners may organize capacity development programmes on monitoring, evaluation, and impact assessment for extension faculty in universities
- Extension/faculty/managers should be familiar with experimental approaches and methods to measure effectiveness of extension instruments



## Field Extension in India: Innovations and Integrations with Research and Curricula

### Policy

- Major findings from field extension experiences should be used for policy advocacy and reforms by Deans' Committees, other bureaucrats and decision makers
- Developing models to link PG student to national and international institutes through research and internships

### Research

- Institutional mechanism for translating field problems to research priorities needs to be in place
- Young researchers need to be integrated in the research to develop technical as well as functional skills
- Researchable issues: Field level problems, comparisons and studies of pluralistic extension models, extension delivery points and accountability of extension services
- Need to document and promote the learnings and experiences of KVKs, Universities, EEs, and ICAR institutes as working papers, good practices and learning notes

### Curricula

- Academic activities, thoroughly planned and implemented, can lead to mass development schemes and programs – AC&ABC scheme of Ministry of Agriculture and Farmers' Welfare and implemented by MANAGE is one such example
- Job givers require different curricula from job seekers – the curricula needs to evolve with market expectations
- The learnings from success and failures of field extension experiences needs to be included in the curriculum to better prepare students as professionals
- Curriculum development needs to be interactive, done in consultative groups and not by a few individuals related to teaching, research and field extension
- Faculties have little to no field orientation and lack the technical and functional skills themselves
- Lot of interesting experiences on extension are piloted by MANAGE, Directorate of Extension (SAUs), ICAR institutes, KVKs, line departments, and private sector individually and in collaboration with others. These experiences should be included in the UG curricula
- Broaden the curricula revision by consultation with MANAGE faculties, public sector organizations, input dealers, private sector, GOs and NGOs.



## **SPECIAL PANEL OF DIRECTORS OF EXTENSION, AGRICULTURAL UNIVERSITIES OF INDIA**

University Extension Models and their translation to Research, Extension and Policy

- MANAGE's CSS (ATMA, AC&ABC) and other extension agencies in PPP mode may be included in UG and PG curriculum. Research may also be encouraged on this topics
- MANAGE may consider conducting national level research studies on KVKs (workload structure, linkage, impact among farmers)
- Extension research needs to come out of the confined mindset
- Understanding of basic social sciences required
- Need to encourage/permit staff in KVK/Directorate of Extension to teach in the college and guide students



### **Suggestions for improvement**

- Opportunities to Universities to expand research focus on Central Sector Schemes (CSS) by developing a nation-wide project on network mode
- Developing guidelines for designing and implementing research methods courses with updated syllabi at PG and PhD levels
- Developing quality research methodology books, manuals and teachers guides
- Providing opportunities for professional development by organizing trainings or workshop to address the deficiencies
- There is a need to develop a platform involving MANAGE, Universities, ICAR Institutes, KVKs, State extension departments and private agencies including NGOs for continuous exchange of ideas and expertise to conduct extension research to address the field problems, develop sound field methods and influence policy. MANAGE-University Alliance may serve this purpose.
- The student research at universities may be expanded by involving stakeholders from MANAGE, ICAR Institutes, ATMA, KVKs, NGOs, agricultural and social policy research institutes and state extension functionaries to make them relevant to field practice and also to address the field problems faced by farmers.

## MANAGE-UNIVERSITY ALLIANCE: ACTION POINTS

### Vision

#### Curricular Reforms

- Developing extension students with contemporary and future skills
- Providing quality education to students
- Adding field experiences and 'case studies' from the field

#### Advancing Extension Research

- Improving learning and research methodology at university level
- Spearheading increased focus on extension research methodology

#### Reorienting Field Extension

- Character and attitudinal change among extension officials
- Improving the social skills of extension officials
- Identifying and developing core competencies of extension professionals
- Creating awareness on Extension Good Practices

### Activities

#### Curricular Reforms

- Advocacy role in curriculum reforms
- Making students more responsible and contributing through better administration of extension courses

#### Advancing Extension Research

- "MANAGE Center for Advancing Agricultural Extension" in selected Universities
- Proposal from University – Research Projects on on-going Govt. Programs/extension systems
- Standard assessment procedure to identify best research paper, guide and student
- Study of different innovative extension models and good practices
- Organize training programs for faculties on research methodology
- Publishing research articles in MANAGE Journal

#### Reorienting Field Extension

- University – ATMA Association: Adoption of a block/district by university as part of RAWE program
- Setting-up of Incubation Centers/Innovation Centers at Universities/Colleges at district/block level
- Documentation of Best Practices
- Associate Universities in Implementing ATMA, AC&ABC, DAESI, Certified Farm Advisor Activities
- Share selected extension activities of universities in MANAGE Bulletin

# Annexures

MANAGE- University Alliance  
for Advancing Agricultural Extension  
and Advisory Services



National Workshop On  
Agricultural Extension:  
Time to Change

February 14-16, 2018  
MANAGE, Hyderabad

Inaugural session @ Samanvaya Hall  
Other sessions @ Norman Borlaug Hall



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### **CONCEPT NOTE**

#### **MANAGE-University Alliance for Advancing Agricultural Extension and Advisory Services**

Agricultural Extension and Advisory Services (AEAS) in India started in a major institutional form with the Green Revolution in the 1960s with a focus on increasing agricultural production, taking the country out of the clutches of frequent famine threats and becoming self-sufficient in food grain production. AEAS concentrated mostly on Transfer of Technology (ToT). While the Green revolution was successful in increasing production of rice and wheat in a few irrigated areas in the country, more complex challenges came to view with time.

Extension is evolving: The concept of AEAS also changed to collaborative, bottom-up development rather than mere ToT. With the gradual entry of the private sector in AEAS, it further moved to the concept of innovation, incubation, and start-ups in agriculture, promoting farming more as a business model for developed farmers rather than a mere act of subsistence. New challenges like climate change, nutrition security, natural resource management (NRM), and so on, and the response to them have changed the dynamics of AEAS in the recent times.

Curriculum mismatch: While response to the challenges are, to some extent, coming from the policy sector, mismatch between the university curricula and innovations in the field are widening gradually. The university curricula, as of now, are not equipped to integrate the ever-changing field-level developments and innovations – be it challenges or response to those – and so a large gap is being created in imparting the required soft skills, functional skills and specialised skills to the students of extension education to equip them to effectively deal with field problems.

Research is less relevant: Research at the university level comprises mostly of Master's and Doctoral students' research, which does not contribute much for policy making. Evidence-based policy advocacy requires thorough understanding of the current gaps in agricultural extension and designing research to address those in effective ways. The current research being carried out is, in most cases, a repetition of studies already conducted, which does not help in contributing to either advancement of knowledge and theory or practice of extension.

Siloed, undocumented frontline extension efforts: Another major contribution of universities was frontline demonstration, which is also past its golden years. While universities still engage in frontline extension, there is no proper documentation of the activities and so, many good practices are confined to a small area and are eventually lost without scaling up. Efforts to share the experiences, technologies and innovations of university frontline AEAS have also been negligible in recent years.

MANAGE – Proposing an alliance: MANAGE is a premiere institute of the country engaged in capacity development activities; management education; knowledge management; and

policy research and advocacy. It implements central sector schemes like Agri Clinics and Agri-Business Centres (ACABC), Diploma in Agricultural Extension Services for Input Dealers (DAESI) Programme, etc., promoting both public and private extension and is involved in the entire gamut, from policy advocacy to implementation. Considering its wide reach in India and other Asian and African countries and expertise in AEAS, MANAGE is interested to form an alliance with universities across the country for advancement of extension.

MANAGE is interested in forming a Consortium for Development Dialogue on AEAS for revamping existing curricula in extension education, identifying major thrust areas for extension research leading to evidence-based policy suggestions, increasing research competence through good practices workshops, documenting field innovations and communicating them to suitable stakeholders, and formulating field extension models and sharing the best fit models. These multitude of activities will help faculty members, researchers and other stakeholders keep abreast with the recent developments in extension, increase quality of research, and amp up the extension activities of universities.





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