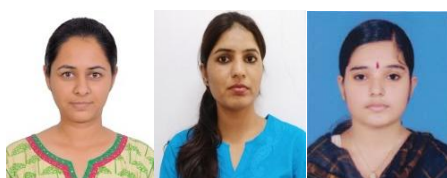


**National Workshop on  
Agricultural Extension in India: Time to Change  
14-16 February, 2018  
National Institute of Agricultural Extension Management (MANAGE), Hyderabad**



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## CONTEXT

Agricultural Extension professionals need new capacities to support farmers to deal with evolving challenges. Merely training existing staff in new areas is not enough. Capacity development should start from their education, especially at the undergraduate and post-graduate levels. Extension curricula, currently used in Indian Universities to teach students at the undergraduate and post-graduate levels, have remained more or less static over the last two decades. Many have pointed out the need for curricular reforms and strengthening of research in extension. However, there have been very negligible efforts in revising the curricula or strengthening research training. Other major issues have been the limited connection between field and frontline extension efforts, and the lack of University support to strengthen field extension through research. This workshop was organised by MANAGE and its alliance partners from Agricultural Universities to mainly discuss these issues, and find ways of addressing the above mentioned challenges.



## INAUGURAL SESSION

This has been the first meeting of the 'MANAGE-University Alliance for Advancing Agricultural Extension and Advisory Services'. In her inaugural address, Smt. V. Usha Rani, IAS, Director General, MANAGE, emphasized the need for extension to address the new demands from farmers for more support. Universities play a very important role in teaching,



research, and extension and the alliance between them and MANAGE will hopefully add value to both. Currently, ICAR institutes are primarily concerned with research, Universities with teaching, and State line departments with field extension, but the linkage among these three organisations is very weak. To undertake effective extension, which is critical for bringing out behavioural changes among farmers, extension

professionals need to have a wide range of skill sets and universities should ensure that students acquire these skill sets before they leave their premises. She also expressed her gratitude to Dr. Murari Suvedi, Professor, Department of Community Sustainability, Michigan State University, for agreeing to participate in this workshop and share his experiences.

## SESSION I: CURRICULUM IN AGRICULTURAL EXTENSION – WHEN WAS THE LAST EVOLUTION?

Dr. R Saravanan, Director (Agricultural Extension), MANAGE, set the context for this session by pointing to the changing role of extension and the curricula mismatch in extension education. In his brief presentation, he emphasised important areas, such as value chain extension, technology incubation, capacity development, partnerships, certification, professionalization, etc.

Dr. Rasheed Sulaiman V, Director, Centre for Research on Innovation and Science Policy (CRISP), highlighted the importance of curricula reforms because of the upcoming and new challenges/opportunities in farming, need for new capacities to address these challenges, changing job markets, and availability of better insights from research in communication and innovation studies, as well as advances in social science research methods. He also briefed about the New Extensionist Learning Kit (NELK) developed by the Global Forum for Rural Advisory Services (GFRAS), which is an important source of knowledge that can support capacity development of extension personnel (GFRAS 2017). He also presented the results from the analysis of extension contents in the UG and PG curricula, currently followed in 17 universities. This analysis



clearly revealed that almost 80 percent of the syllabus followed is similar across universities, and these have not been updated in several years. As a result, scholars of extension, who could actually fit into many jobs, such as CGIAR Social Scientist positions, M&E Specialists, Capacity Development Experts (national and global), Development Managers, Communication Officers, etc., are rendered virtually unfit to even apply for these positions. Consequently, the job market for extension students is restricted to a very few positions available under Agricultural Research Services and faculty in Universities. He emphasised the need for identifying core extension competencies that are required by agricultural graduates and extension post-graduates, and build up courses that support the development of these among students. To assess the core competencies required for upgrading an extension professional, CRISP along with MANAGE, is conducting an online survey among potential employers as well as employed agricultural graduates.

In his presentation, Dr Murari Suvedi focused on the Core Competencies of Extension Professionals. He talked about the changing global agricultural scenario (improved crop varieties and animal breeds, mechanization, biotechnology, precision agriculture, organic farming, energy conservation, etc.) and how an extension worker is serving as the bridge between policy makers, researchers, educators, other stakeholders and the community. Given the changing agriculture scenario, extension staff need to perform new roles as educators, facilitators, coordinators, social researchers, trainers, change agents and information brokers. He also spoke about the four core competency domains – programme planning, programme implementation, communication and information technologies, and programme evaluation. He further talked about the process skills and competency needed for extension professionals.



Dr Sagar Wadkar, Assistant Professor, Tata Institute of Social Sciences, deliberated on the agricultural extension curricula from the development perspective. He emphasised the need for collective action by communities, as well as the need for coordinated action by different stakeholders in dealing with new challenges in agriculture. He pointed out that though job opportunities for agricultural graduates and extension post-graduates do exist in the development sector, lack of field orientation and development of practical skills among them are leading to their rejection for several posts. The use of traditional teaching methods and lack of provision for internship have led to this impasse. Many universities are currently following diverse instructional methods, and these include lecture-cum-discussion, case method, students' group presentation, and field work etc., and he emphasized the need for strengthening the use of these methods by extension faculty.





Dr P Sethuraman Sivakumar, Principal Scientist (Agricultural Extension), ICAR-CTCRI (Central Tuber Crops Research Institute), focused on quality research in extension, i.e., the degree to which extension research contributes to professional development in the discipline. He discussed various roles of extension researchers: developing scientific theories and models and sound replicable interventions. He also emphasized the importance of psychology (educational psychology and organisational psychology) within extension curriculum as extension's main focus is on change in human behaviour. He also discussed the course content under research methodology at the MSc and PhD levels. He also focused in detail on the advanced designs and techniques in social science research course content. According to him the research course curricula is strong in basics of scaling but some current developments are missing, so there is a strong need to update the course content. He also suggested that books for extension research method courses are very old so there is a need to update the textbooks.



Dr P V K Sashidhar, Director, School of Extension and Development Studies, IGNOU, threw light on the core competencies of extension professionals in livestock and fisheries sector, and its implications for UG and PG curricula. Dr Sasidhar gave an overview of the curriculum of veterinary and fishery extension at the PG and PhD levels. He believes that extension professionals need to have two types of core competencies, i.e, technical competencies and process competencies (soft skills), and gave an outline of Performance of Veterinary Services

(PVS) by the Organisation for Animal Health (OIE).He also suggested some of the ways to acquire these core competencies, like pre-service training for scholars at the UG and PG levels, licensing examination to conform to uniform competencies, basic introduction and in-service training, etc.

Then a group exercise was conducted wherein participants were divided into four groups. Thereafter, two groups were asked to identify core extension competencies that are required or need to be developed among agricultural graduates, adequacy of the present curricula, the need for additional content and instructional methods that ought to be included to deliver appropriate content, capacity gaps in faculty, and need for a



system to be put in place to develop capacities of teachers. The other two groups were asked similar questions for discussion and to generate recommendations for post-graduate scholars in extension. The outcomes of the group discussion were synthesized and presented by the respective group members (Table 1).

<b>Table 1: Core extension competencies needed among agricultural graduates and post-graduates in agricultural extension, identified through group work by the participants</b>	
<b>UG Level</b>	<b>PG Level</b>
<ul style="list-style-type: none"> <li>• Communication skills</li> <li>• Entrepreneurship</li> <li>• Technical expertise</li> <li>• Decision making</li> <li>• Time management</li> <li>• Group mobilization</li> <li>• Good listening</li> <li>• ICTs</li> <li>• Negotiation skills</li> <li>• Data collection, analysis, report writing</li> <li>• Need assessment</li> <li>• Rapport building</li> <li>• Conflict management</li> <li>• Programme planning, execution, evaluation</li> <li>• Participatory methods</li> <li>• Stakeholder analysis,</li> <li>• Mobilization and group dynamics</li> <li>• Value chain and trade</li> <li>• Contemporary issues- gender, climate change, sustainability issues</li> <li>• Policy facilitation</li> <li>• Understanding different developmental programmes and issues</li> <li>• Risk analysis</li> <li>• Entrepreneurship development</li> </ul>	<ul style="list-style-type: none"> <li>• Analyzing situations- perspectives, development potential, socio-economic status, agro ecosystem analysis</li> <li>• Group mobilization- social capital, group dynamics, gender, rural leadership</li> <li>• Project formulation- feasibility, revenue models</li> <li>• Research methodology- social sciences, development, market</li> <li>• Entrepreneurship- enterprises, market led extension</li> <li>• Media, Communication, ICTs- content development, instructional technologies</li> <li>• Programme planning- communication skills</li> <li>• Programme execution-</li> <li>• Programme evaluation- analytical and comprehensive skills</li> <li>• Information technology</li> </ul>

### **Recommendations on UG Curricula**

The present curricula were found to be inadequate for developing students in the identified competencies, and hence there is a need for restructuring by adding suitable content; as well as for innovating on delivery methods. Along with that, capacity of the faculty needs to be enhanced both in terms of content and delivery. For accomplishing this objective, group members pointed to the issue of developing a ‘Teacher’s Manual’ on a priority basis. However, the members were not in favour of going for specialization in extension at the UG level.

### **Recommendations on PG Curricula**

The groups which discussed reforming the PG curricula had backing for the specialized courses in extension. The main recommendation was the need for a buffet of courses from

which students can pick and choose. This would enable them to strengthen their competencies in a preferred area. Also the delivery/instruction methods can be diversified, like case teaching method, face-to-face learning, activity groups, as well as e-learning. The degree, post-graduation in extension should clearly define the functional area (viz., researcher/faculty/development professional) in which the scholars can fit into by the time they complete their degree. They also reiterated the need to strengthen and broaden social science research methods (both qualitative and quantitative) and areas (sociology, anthropology, economics, etc.). Apart from this, Economics should be made a compulsory minor course for post-graduates in extension. The members also pushed for the need to have standard textbooks for extension.

A special panel on University Education, Research and Extension was conducted afterwards, with Prof. K Vijayaraghavan, Former Joint Director and Former Director (I/C), IARI, as the facilitator. Key points that came up in the discussion were the need to relook at the RAWE (Rural Agricultural Work Experience) program, quality control and regulation of private agriculture colleges, ICAR institute-SAU convergence in PG teaching/research in extension, documentation of good practices in SAUs and KVKs, enhancing standards of ARS syllabus, and exploring the possibilities of network projects in extension.



## Day 2

The second day started with a recap of Day 1 deliberations by Dr Rasheed. He referred to the changing nature of agriculture and job markets and the new tasks extension personnel have to perform, which calls for the development of new capacities among budding graduates and post-graduates in the discipline. He also spoke of the need to share good practices in instructional delivery of extension content, and enhancing employment options for extension post-graduates based on some of the experiences presented on the previous day. This was followed by a card exercise for participants on priority steps needed to be taken to strengthen extension curricula, students' research and instructional methods. Various points emerged, such as the need to enhance capacity of extension faculty, teachers' manual, strengthening social science research methods, Economics as compulsory minor at PG level, and standard textbooks.

Following this, Dr Mahesh Chander, Principal Scientist, ICAR-IVRI (Indian Veterinary Research Institute), made a presentation on the entrepreneurship curricula at the UG and PG level. He started the session with a role play by students on the lack of empathy and understanding in extension professionals when they interact with farmers, and how this needs to be addressed as the new generation of farmers are becoming more aware, so we also need to upgrade our learning to go hand-in-hand with them.



In his presentation, he called attention to the fact that farmers are now agripreneurs and extension functionaries need to upgrade their capacities to meet their demands and challenges, and the existing curriculum needs to be upgraded to meet their expectations. New subject areas, such as business communication, risk management, financial management, social marketing, HRD and agripreneurship development should be included in the course curricula. He also shared the draft of revised curricula for entrepreneurship for extension at the UG and PG level, and sought comments and suggestions from the participants on this draft.

## **SESSION 2: BETTER RESEARCH FOR BETTER EXTENSION**

Mrs. Usha Rani, Director General, MANAGE, commenced this session by highlighting the role of research in the growth of all disciplines, and the need for extension research to help develop, adapt and promote new and more relevant extension approaches. “We need to couple the extension syllabus with field-based evidence,” she said. Moreover, research in extension should be able to showcase the extension models that were successfully implemented at the field level. If extension scholars can enhance the standards of research that would be more appreciated. Moreover, this would need relatively less investment, and it would help inform policy makers about ground level issues and realities pertaining to farming and performance of various extension approaches.

### **Special Panel**

A panel discussion was organized primarily focusing on ‘Research in Extension: Yesterday, Today and Tomorrow’. The panel was facilitated by Dr Sethuraman Sivakumar, and had Dr Souvik Ghosh, Professor, (Agricultural Extension) Vishwa Bharti University, and Dr P Alagesan, Senior Scientist and Head, MYRADA KVK, as the other panellists. The session focussed on the existing difference in research being undertaken in Universities and ICAR institutes and how this needs to be improved. Dr Sethuraman noted that extension research is currently facing an identity crisis and we need to make ourselves indispensable by doing



good quality research. There is a need to professionally develop extension discipline by improving research standards and impact of the research undertaken in extension. Certain problems in university extension research were also discussed, namely, narrow focus on research problem, heavy reliance on exploratory approaches, inappropriate methods and techniques, and poor quality research publications. Furthermore, rejection and discontinuance of studies should be focused upon equally with adoption studies.

Dr Souvik Ghosh reflected upon the evolution of extension research in India starting with the phenomena studies in the 1950s, scaling techniques in the 1960s, diffusion and adoption studies in the 1970s, and extension models like T&V in the 1980s. Thereafter, research in extension entered into a phase of complacency with lack of focus on field-oriented issues and inappropriate use of research techniques. He also elaborated on his research experiences in the area of watershed management and emphasized the need for an extension researcher to carve out niche areas of work and then specializing in it. He concluded that most of the emerging issues in the farm sector are multi-pronged and hence need a multi-disciplinary focus. Therefore extension researchers should be able to work in harmony with the specialists from sister disciplines and should equip themselves with advanced research techniques, like modelling.



Dr P Alagesan shared his views on institutional good practices in agricultural extension, particularly his experiences from MYRADA KVK and extension models that can be translated into extension curriculum and research. He elaborated upon various services and innovative works that were initiated at the KVK, such as Community Managed Resource Centre (CMRC), identification of farm innovations, conducting Farmers' Science Congress, and outreach of various farm technologies. Institutional knowledge gained from experience working at field extension level should also be an important part of extension curricula at UG and PG level, he observed.

Afterwards, participants were asked to present their thoughts on how field extension and policy can benefit from university research. Participants noted that university research can help identify and bridge technology gaps, can validate farmer innovations, support monitoring and evaluation of extension interventions, develop innovative models of extension delivery, document, analyse and synthesize good practices in extension and review policy implementation. Participants also expressed their thoughts on how the MANAGE-University partnership for research can be best implemented. Various points came up for consideration as action-oriented research projects and guiding area-specific research, based on university priorities and capacities. Other areas include: collaborative initiatives in



strengthening research methodology; review of extension interventions; advocating curricula development; developing extension models; and joint research proposals.

### Special Lecture

Prof. V Veerabhadraiah, Former Director of Extension, UAS-B and Emeritus Scientist (ICAR), delivered a special lecture on 'Changing times, changing priorities: A journey of extension research, curriculum, and university extension spanning six decades'. As an experienced extension professional, he threw light on the various changes in extension discipline and practice in India during the last six decades. He also noted that the urge for curricula reforms



and the need for strengthening extension research – as expressed by young researchers – will definitely help in reinventing extension to meet the new challenges, and will make the discipline more relevant to the changing times.

Following this lecture, the participants visited the MANAGE Library, especially to familiarise themselves with the '50 publications every extension professional must read', which was suggested in AESA Blog 75 (AESAs 2017).

### Students Panel

An important highlight of the day was the students' session facilitated by Dr Suchiradipta Bhattacharjee, MANAGE Fellow, where the students were given an opportunity to put forth their views and the concerns that constrain them from becoming good extension professionals. One of the key points that came to light was the need for modifications in extension curricula. Students noted that ability of extension faculty make a major difference in the student's excellence; and so capacity development of extension faculty needs urgent attention. A buffet of courses from extension and allied disciplines that could help in



building special skills for professional development should be included in the curricula, including various MOOCs (Massive Open Online Course) or other online courses through Coursera, Udemy, and so on. There is need to create a level playing field for candidates so that students from every university get a chance to participate in extension research. This can be made feasible by making the competitive exams, especially the Agricultural Research Service selection process, more transparent. This will involve updating the exam syllabus and conducting examinations and interviews in a more transparent manner. Students face many challenges while conducting research and hands-on practice in data collection and analysis is greatly needed, especially in state agricultural universities. Apart from the above mentioned points, there is need for orientation on career opportunities and student exchange programs as well.

### Day 3

#### Special Lecture

The day commenced with a Special Lecture by Dr Murari Suvedi on Monitoring and Evaluation in extension research and practice. Dr Murari presented the fundamentals of monitoring and evaluation and highlighted the need to enhance capacities related to monitoring, evaluation, and impact assessment among extension students and faculty. He suggested that MANAGE, in collaboration with alliance partners, may organize capacity development programmes on monitoring, evaluation, and impact assessment for extension faculty in universities. He also pointed out that extension faculty/managers should be familiar with experimental approaches and methods to measure effectiveness of extension instruments. He also gave a detailed description on how to improve evaluation practice and to document impacts.



### SESSION 3: FIELD EXTENSION IN INDIA: INNOVATIONS AND INTEGRATIONS WITH RESEARCH AND CURRICULA

A panel session was held with Dr P Chandrasekhara (Faculty, MANAGE), Dr M A Karim (Faculty, MANAGE), and Dr Mahesh Chander to discuss the field extension scenario in India. Several issues were highlighted by the panellists in this session and these include: the need for an institutional mechanism for translating field problems into research priorities, use of research findings for policy advocacy, limitations of the ICAR mechanisms for curricula revision including Dean's committee and Subject Matter Committee on Social Sciences,



efficient planning and implementation of academic activities, learning from success and failure of field extension experiences, inclusion of success and failures from field extension into the course curricula, need for developing technical and functional skills among faculty members, development of models to link PG students to national and international institutes for research and internships, collaborative and consultative manner of curriculum development, and documentation of field extension experiences as working papers, good practices and learning notes.

### Special Panel

This special panel session of Directors of Extension was facilitated by Dr Jiju P Alex (Director of Extension, Kerala Agricultural University). Other panelists included Dr H Philip, Director of Extension, TNAU, and Dr R N S Banafar, Director of Extension, Rajmata Vijayaraje Scindia Krishi Vishwavidyalaya (RVSKV).



This session focused on various extension models followed in universities and how these can be translated into research and policy. It was generally thought that research on various extension interventions should be encouraged within universities along with student research at the UG and PG level. It was pointed out that basic understanding of social sciences is a must in order to improve university extension research. It was also suggested that MANAGE, CRISP/AESA may consider conducting national level research studies on KVKs (workload structure, linkage, impact among farmers), and that extension research needs to be broadened beyond the confined mindset of adoption studies. Suggestions that came up were to increase the number of SMSs in KVKs and also encourage them to take up teaching and guidance in research as well. The panelists also highlighted the need for more opportunities for professional development by organizing trainings and workshops. Moreover, there is 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 with regard to conducting extension research that can address field problems, develop sound field methods, and influence policy.

#### **SESSION 4: RECENT TRENDS AND FUTURE DIRECTIONS IN EXTENSION**

This session had three presentations. Dr Senthil Vinayagam, Principal Scientist, ICAR-NAARM (National Academy of Agricultural Research Management), shared his experiences in entrepreneurship promotion through participatory rural development. He stated that various farmer-led innovations have come up with institutional support and these experiences should be included in student curricula as well. Dr GRK Murthy, Principal Scientist, ICAR-NAARM, spoke on recent trends in online education in the digital era and how MOOCs and other online courses can reform agricultural extension. He spoke about the various digital media initiatives offered in the country and how these can be effectively utilized in agricultural extension work. Ms. Rupan Raghuvanshi, PhD Scholar (GBPAUT), shared her experience as a MANAGE Intern where she worked on Climate Smart Agriculture and Advisory Services and its implications for the future. She spoke about various extension methods for transferring climate knowledge and capacity development.

#### **CLOSING SESSION**

Dr Suchiradipta Bhattacharjee, MANAGE Fellow, did a final recap of the previous days' sessions. Other reflections and suggestions were invited from the participants in order to move forward with the MANAGE-University Alliance for Advancing Agricultural Extension.

In her closing address, Smt. Usha Rani, Director General, MANAGE, talked about having a common vision for developing students with up-to-date knowledge and expertise, as well as with improved research capabilities and relevant functional skills for sound extension



interventions. She also briefed on the MANAGE-University Alliance and the support MANAGE can provide by establishing MANAGE Centres at universities, by guiding students, and by publishing and awarding good quality research findings. She primarily emphasized that it's high time to change and evolve, so that together we can change the future of agricultural extension.

#### **OUR IMPRESSIONS**

Our sincere gratitude to MANAGE for organising this workshop on improving education, research and field interventions in the area of extension. The workshop was efficiently executed and brought together the views of different stakeholders involved in the teaching-



learning process. The contributions of knowledge providers, mainly teachers, directors, field extension professionals and knowledge takers i.e., students, made the workshop very productive.

All the sessions were very informative, and participants were actively involved through various group exercises. They were also encouraged to put forth their reflections and suggestions on the much-needed changes called for in present extension curricula. As students, we enjoyed the special session for students, which gave us the chance to express our views and expectations from the existing course content, whether it is constructive to build core competencies among us or not, what the existing loopholes are in the course content, etc. We sincerely believe that our views will be considered while designing course curricula and strengthening research training.

The workshop was well planned and it effectively focused on the one topic that was long overdue, i.e., extension curriculum, which is the foundation for becoming an extension professional. We, furthermore recommend that in future these kinds of workshops should include a larger number of students so that more creative suggestions ensue. We also think that the present content could be better administered in a more creative and interesting manner, by using case method, group discussion, field visits, etc. But apart from these, there is a critical need to update subject knowledge by adding the latest topics and content in the curricula.



We will be greatly thankful if next time major emphasis is laid on the research methodology part of extension education because it is somewhat weak. In other points, as extension research journals have very low NAAS rating in India, it is also a major area of concern for us. Another matter of concern for us as students is the lacuna of job opportunities available for extension scholars – perhaps this is due to lack of competence and skill set, or even poor awareness, among extension students that lead to neglect by potential job providers.

We will be thankful if some steps can be taken to create awareness about unconventional job opportunities that can come up for us. As students we would like to have more connectivity with various focal bodies involved in extension research and studies, so that we can improve our capacities and contribute our bit to the development of our discipline as well. In conclusion, we feel that the programme was a bit too tightly packed, all the same it was definitely worth attending. It was a very educational and informative experience for all the participants, and we will surely motivate others to attend such workshops in future.

## References

Agricultural Extension in South Asia (AESAs). 2017. 50 publications every extension professional should read. AESA Blog 75.

Accessed from <http://www.aesa-gfras.net/admin/kcfinder/upload/files/Blog75.pdf>

Global Forum for Rural Advisory Services (GFRAS). 2017. The New Extensionist Learning Kit.

Available at [http://g-fras.org/en/knowledge/new-extensionist-learningkit-](http://g-fras.org/en/knowledge/new-extensionist-learningkit-nelk.html#module-1-introduction-to-the-new-extensionist)

[nelk.html#module-1-introduction-to-the-new-extensionist](http://g-fras.org/en/knowledge/new-extensionist-learningkit-nelk.html#module-1-introduction-to-the-new-extensionist)

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