

Innovative approaches for Agricultural Knowledge Management

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As you remember I shared my concerns with you about the scientific advancements of the field of agricultural extension (see Issue 11-04; Does extension yield new scientific knowledge?). I also mitigated my concerns regarding the practical field of extension (see Issue 12-01, Scientific advancement of extension revisited). These observations were confirmed during the 'International Conference on Innovative Approaches for Agricultural Knowledge Management' of the International Society of Extension Education (INSEE) and the Indian Council of Agricultural Research (ICAR) which took place in New Delhi on November 9-12, 2011. The conference was officially opened by the President of India, Smt. Pratibha Devisingh Patil. Instead of what one could call just a ceremonial speech, the President had a convincing key note speech. Security around this opening was very tight. The Instruction for the around 600 Delegates stated that it was not allowed to take hand bags, briefcases, cameras and electronic gadgets into the conference room, which made it difficult to register what was being said. Key organisers of the conference seemed also to be quite hesitant to share the text of this speech, as after several requests I did not receive it yet, whereas I thought there was not really anything secret in the speech. I find it a pity that it is impossible to share various details of it as it was very informative. Nevertheless I do recollect that Mrs Patil stated that farmers should be valued more as contributors of the sustained existence of the human race. It is true that food security in the western world is often taken for granted, whereas worldwide there are 900 million people hungry every day. Compared to professions like medicine farming is easily being undervalued. In the hypothetical case that all farming would suddenly stop around the world, consequences for the human race would be more extreme than when all medical doctors would stop their activities. If the medical profession would end all its activity a large proportion of the global population would survive, but when all food production would stop, global population would decimate to a larger extent than by any health pandemic the world has ever seen. So I thank Mrs Patil for attributing a key identity to the farming households.

During the conference figures were shown for the production of various agricultural commodities. Next to that the consumption needs in tonnes of these commodities of the Indian population of 1,3 billion people were shown. This explained very clearly that there are huge gaps in consumption needs and production volumes for certain commodities. Although there is already a huge extension system in India, with around 100,000 extension professionals, there are plans to increase the budget of extension and agricultural research 10 times for the next 5-year planning period. This way the government hopes that the nation can fight food price inflation and rural poverty.

However, whereas this plan may help to produce more, better and cheaper food, I expect it will create new problems. As Anne van den Ban informed me: in India 52% of the labour force works in agriculture. The Minister of Agriculture & Food Processing Industries, Sharad Pawar, stated that only 15% of the gross national product is generated in agriculture. The average income of the people working in farming is only 20% of the average income of all Indians. He stated that a large staff training program is needed to make such a large increase

of investment in agricultural extension and development a success. That is correct I think. But I think that the extension system should go beyond mere agricultural extension and include notions of integral rural development. My argument here is that by making agriculture more productive, meaning more yield of higher quality at lower prices, many farmers will not be able to cope with the new performance requirements.. That means that the livelihood of many agricultural households will be at risk and that new employment has to be created for the people involved. Since job creation in rural areas is not an easy thing, much will depend on the entrepreneurial attitude of the population. Since entrepreneurship is new for many in the primary sector, extension services would also have to be oriented towards this activity. That means that extension should be much broader than just agricultural knowledge transfer or agricultural innovation process facilitation. It should be embedded in regional socio-economic restructuring plans in which due attention is paid to labour market effects of an intensified agricultural development process. If no alternative is given, the farmers will become more commercial, pushing colleagues/competitors out of the market, which will even strengthen the migration to cities, where making a living is more difficult than many migrants expect.

During the opening session Shri Sharad Pawar, Minister of Agriculture and Food Processing Industries chaired the inaugural function of the conference. Shri Harish Rawat, Minister of State for Agricultural and Food Processing Industries also delivered a speech. Dr. S. Ayyappan, Secretary of the Department of Agricultural Research and Education (DARE) and Director General of the Indian Council of Agricultural Research (ICAR) was the Guest of Honour. The conference organisation was led by Dr. K. Vijayaragavan, Joint Director (Extn), IARI and Organizing Secretary, Dr. A.G. Sawant (Former Member of the ASRB and President of the INSEE) and Dr. K.D. Kokate (DDG (Agril. Extn), ICAR and Chairman of the Organizing Committee.

Delegates received a Souvenir of the conference, which was a book with messages, organizational details and other interesting materials such as the profile of INSEE, articles and advertisements. The Prime Minister of India [Dr. Manmohan Singh](#) has a message in the book saying amongst other things that it is heartening that institutions are ‘...sharing ...partnership in organizing this Conference with major aim to strengthen the extension sciences.

The Minister of Agriculture and Food Processing Industries mentioned above points at the several challenges Indian agriculture is facing: ‘climate change, declining per capita holding size, yawning costs of cultivation and post-harvest losses. ... Managing the knowledge emanating from various sources, partners and institutions is probably the major intervention required for sustainable agricultural development in the current context’. I understand and appreciate the importance of this message, which was echoed in the words of a delegate who was saying about the same. As I see myself also as one of the (humble) sources for knowledge in the field of agricultural extension (or rather integrated rural and human development) I was asking this colleague how this would work out in practice and how he would manage my knowledge. He did not exactly understand my point.

Montek Singh Ahluwalia, Deputy Chairman of the Planning Commission of India, plays a key role in the process of following up the results of this conference. He stated that he was looking forward to the outcomes of the conference as ‘...they may have significant implications in shaping the country’s agricultural planning for sustainable development.

Short contributions in the book are from K.D. Kokate, on Agricultural Knowledge Generation, Refinement and Dissemination, H.S. Gupta (Director of the Indian Agricultural

Research Institute) on Addressing Current Agrarian Issues with Better Knowledge Management, B.S. Hansra, P.K. Jain & Sangeeta Upadhyay on Open Educational Resources as an Innovative Approach in Open and Distance Education and J.P. Sharma & R. Roy Burman on Networking for Agricultural Knowledge Management.

The conference itself was special. The plenary sessions were organized very well and were also informative. The concurrent sessions were different. These were sessions of around four hours in which there were a smaller number of around four panellist presentations of approximately twenty minutes, followed by around twenty-five paper presentations. At least that was the number on paper, listing presenters and titles of their presentations. Luckily more than half of those presentations did not materialize because the speakers did not show up. But still, there was far too little time to accommodate all paper presenters. Presentations were limited to only a couple of minutes per paper and needed to be truncated even before they could become interesting in many cases, of course to the despair of the chair persons and the presenters. This was not the best part of the conference.

The content of many presentations was interesting. They were about agricultural knowledge generation, refinement and dissemination, recent innovations and reforms in extension, agribusiness approaches and entrepreneurial development, gender mainstreaming, capacity development for agricultural knowledge management, the use of ICT for agricultural knowledge management, the framework for global e-extension academy, indigenous knowledge systems, technological issues, institutional issues, community issues, networking for agricultural knowledge management, and agrarian issues and agricultural knowledge management. Myself, I had a contribution with Hansje Eppink and Leonoor Akkermans as co-authors in a panel presentation session on the design, implementation and effectiveness of capacity-oriented workplace learning in East Africa. Other speakers in that session were Murari Suvedi on capacity building for agricultural knowledge management, challenges facing the agricultural extension profession, Thomas H. Bruening, Melanie Miller-Foster and Ed Rajotte on feeding the future with the graduates that can make an impact in the world, M.C. Sharma and Rupasi Tiwari on current issues in the livestock sector and animal science knowledge management, and A.K. Singh on enriching knowledge, empowering farmers. The session was chaired by Dr. Mangla Rai, co-chaired by Dr. M.L. Madan and convened by Dr. V. Venkatasubramanian and Dr. T.P. Trivedi.

My general impression of the conference is that there is an enormous amount of attention for agricultural research, development and extension in India. This attention is visible at the level of national and regional governance, innovation policy, development planning and practice. Very many presentations were of the kind of policy analyses, innovations in extension programs and descriptions of pilots and practices. There were a very limited number of presentations which were contributing to the advancement of extension science. That seem to remain the perennial issues in the field of extension. There is need for practical development, there is innovation, but there are only a few approaches in which extension development goes hand in hand with scientific development. Why is that the case? Is the field of extension being regarded as a field of practice in which given scientific principles can be used? That would be a limited view in my opinion. This field also needs attention of scientists that need to be appreciated by national policy makers. Older models of extension have to be replaced by current ones. Practices which are based on the traditional theory of knowledge transfer or knowledge dissemination do not hold anymore and are not effective. Communication and learning sciences have shown new promising roads to development, which are related to

theories about multi-sector competence development, collaborative knowledge construction, facilitating multiple-stakeholder processes, and multi-level transformation governance.

Scientific advancement of the field of extension depends on the volume of and opportunities for research, the state of science in the field and the related interests of researchers. At the moment many colleagues are not very optimistic about this. In my opinion it is a matter of seeing possibilities and making choices. It is not only under the umbrella of extension that interesting scientific progress is made towards agricultural, rural and human development. Applied fields emerge, diverge, and dissolve throughout the advancement of science, and practice can tap the insights of the various different specializations that are relevant for the field.

If, like in India, the governments wants to invest in the development or extension, and research on that is important, and research and practice need to be aligned, will universities and research institutes stimulate their researchers to engage in practical extension work? Or to put it in the words of Anne van den Ban: will research institutes and universities pay their researchers for their contributions to the practice of extension, or will they punish them because they publish too little as a result of that? Unfortunately this question, posed during the final valedictory session, was not really picked up. But the point is clear. Research on a practical field should go hand in hand with the development of that field, and thus researchers should work in, with and for practice (and for science itself of course). And that research and development philosophy should be translated into consistent research funding, research assessment, organizational and human resource management strategies and practices.