



**Technical Report**



**TRAINING COURSE  
ON  
Contemporary Approaches to Extension  
15 – 19 May, 2016  
Cairo, Egypt**

**Japan International Cooperation Agency (JICA)  
and  
International Center for Agricultural Research in the Dry Areas (ICARDA)**



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## EXECUTIVE SUMMARY

### Name of the project

Capacity Development in Agriculture for Afghanistan and Regional countries

### Partners

Japan International Cooperation Agency (JICA)

International Center for Agricultural Research in the Dry Areas (ICARDA)

### Purpose

To enhance the skills of national staff engaged in agricultural extension activities, through an improved understanding of more contemporary approaches for efficacy in the delivery of knowledge to the agricultural community, with the overall aim at improving broad uptake of new technologies and production practices.

### Specific objectives of the training course on contemporary approaches to extension

To provide an introduction to:

- Conceptual relationships between extension and innovation (technological, social, institutional)
- Approaches to rural advisory services (challenges and opportunities) through learning from international experience and participant reflections of extension delivery in Afghanistan:
  - Cost sharing/recovery approaches
  - Commodity specific approaches
  - Farmer Field Schools
  - Multi-input approaches
  - Innovation Systems paradigm
  - The role of extension in rural development (“rural advisory services”)
  - Understanding Innovation Platforms (what is new?)
  - The importance of considering gender in the process of agricultural innovation

### Specific outputs

Thirteen National Agricultural Research Systems (NARS) employees (ten from Afghanistan, two from Egypt and one from Sudan) are introduced to contemporary approaches to, and efficacy in, knowledge acquisition and delivery with specific emphasis on broad uptake of new and/or improved agricultural technologies and production practices.

### Specific outcomes

Course participants have a better appreciation of a variety of approaches to knowledge acquisition and delivery, and are able to assess the contextual validity of these approaches for effective applicability within their working environments.

## GENERAL OVERVIEW

The rapidly changing context of agriculture has resulted in a transformation of the way knowledge is generated and applied. Agricultural development is increasingly taking place in a globalized setting, which implies that domestic markets alone no longer define demand. Agricultural systems are increasingly complex and knowledge from other domains and locales is increasingly more important. Affected by technical, social, economic, political and environmental issues, the range of issues that must therefore be addressed to foster agricultural development is vast and impossible to achieve without adequate foresight.

Hence, what is required is a different approach towards the generation and application of agricultural knowledge. Traditional approaches to agricultural research and extension are no longer sufficient to enable agricultural innovation and development to take place. Over the years, perspectives on the role of agricultural research for development have shifted considerably, moving from linear Transfer-of-Technology (ToT) models in the 1960s to 'Farmer First' and Farming Systems Research approaches in the 1980s and 1990s. Participatory approaches that came into vogue in the 1990s contributed to technology generation and adoption that further brought in economic, market driven value chain thinking into agricultural research and extension. However neither participatory approaches nor value chains addressed the organizational and institutional factors required for technological changes to sustain. Thus far, agricultural research has focused strongly on improving production and processing techniques such as breeding new varieties, improving cultivation practices or interactions between food and cash crops.

More recent views focus on **Agricultural Innovation Systems** (AIS), which builds on systems thinking. **Systems thinking** is an approach to probing and dealing with the complex situations that actors face in a particular sector – looking at the whole and making links between the various parts. Systems are defined as “relationships and linkages among elements within arbitrary boundaries for discourse about complex phenomena to emphasize wholeness, interrelationships and emergent properties” (Röling 1992). Integrated systems are complex wholes in which a range of social and bio-physical processes interact across various levels and scales. Re-orienting the dynamics of systems in favour of realizing desirable outcomes is essentially about changing the way people interact with each other and respond to their changing environment. (Leeuwis et al 2014). As such, recent approaches to agricultural innovation are increasingly rooted in (soft) systems thinking. The focus on actors, their perspectives, their intentions, and their interrelationships within the wider context makes it a useful approach for dealing with the complexity in which smallholder farmers operate. The new perspectives that emerge through focusing on actors and using a soft systems approach, challenge predominant reductionist, linear, transfer of technology approaches. (Sanyang et al, 2014)

The **Agricultural Innovation Systems** perspective can help to address systemic constraints shared by multiple actors operating in complex systems with competing forces at play. The AIS perspective places great emphasis on understanding the nature of relationships between actors, and the attitudes and practices that shape those relationships. Relationships promote interaction and interaction promotes learning and innovation (World Bank, 2007). An innovation system can be defined as “a network of organizations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organization into economic use, together with the institutions and policies that affect their behaviour and performance” (FAO working

definition, Rajalahti, 2012, Hall et al., 2006). They are seen as a way of operationalizing interaction and learning among actors, and enable reshaping institutions and relationships. (Swaans, et.al., 2014)

## **PURPOSE**

To enhance the skills of national staff engaged in agricultural extension activities through a better understanding of the concept of agricultural innovation systems in enhancing the delivery of knowledge to the agricultural community, and in order to improve broad uptake of new technologies and production practices.

## **TARGETED AUDIENCE**

Staff within NARS who are engaged in the delivery of knowledge to the agricultural community and who, through better appreciation for more contemporary approaches for knowledge dissemination, are able to foster greater uptake of new technologies and production practices (See details in Annex III).

## **ORGANIZING COMMITTEE**

Mr. Charles Kleinermann, Head, ICARDA Capacity Development Unit (CDU) - [c.kleinermann@cgiar.org](mailto:c.kleinermann@cgiar.org)

Dr. Shinan Kassam, Sustainable Intensification and Resilience Production Systems (SIRPS) - [S.Kassam@cgiar.org](mailto:S.Kassam@cgiar.org)

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## **COURSE STRUCTURE**

A series of lectures provided background information on contemporary approaches to agricultural extension and were delivered in a manner which aided discussion in both small groups (break-out sessions) as well as in general fora.

## **COURSE IMPLEMENTATION**

The course was delivered over a five-day period between May 15 - May 19.

The first day began with the course overview and introduction by Dr. Shinan Kassam followed by a series of lectures on extension, rural advisory services and innovation systems and platforms.

On Monday, Dr. Kassam delivered a lecture on defining essential underpinings for innovation systems and platforms followed by the role of gender, nutrition livelihoods and well-being in innovation systems.

A planned field visit to the ICARDA research site in Sharqia governorate on May 17 was cancelled due to an inability to obtain official security clearance from the Minister



of Interior in a timely fashion. In order to fill the gap, a guest speaker from the Agricultural Research Centre in Egypt (Dr. Mohamed Kassem) was invited in order to deliver a half-day session on the agricultural extension system in Egypt.



On the fourth and fifth day, the trainees focused on discussion and analysis of individual country extension systems, how they compared to each other, as well as reflection on both strengths and areas of potential improvement followed by the course evaluation.

### **GROUP ASSESSMENT**

Participants indicated that they had been exposed to a significant amount of new and valuable knowledge over the five-day period, inclusive of strengthening existing knowledge, as well as in better understanding concepts and terminology, which they had heard of before, but were not fully clear to them in terms of their understanding and meaning. While they were disappointed in not being able to visit the field in Sharqia, they were very satisfied with the guest speaker and the knowledge gained on Egyptian extension systems.

The language of instruction (English) was a clear concern given that a number of trainees were not fluent in English. This required periods of delay, within which one of the participants would provide translation of important concepts or a summary of the lecture materials. This necessarily caused disruption in the flow of proceedings for those with relatively better English comprehension skills. A process for more effective screening of English language skills may need to be uncovered in order to enhance the efficacy of future training courses and ability for more intense discussion.

### **GENERAL COURSE EVALUATION by TRAINEES**

At the end of the training course, each participant provided their feedback on their perception of the effectiveness of the training course format and content.

92% of the participants qualified the course as excellent and the rest of the participants qualified it as very good. Participants expressed their interest in providing more time for lectures by extending the course duration, which will also allow more time for discussion and group work. With respect to the technical level of the topics covered in the training, 71% of the participants considered that the delivered material was very useful. (See details in Annex IV).

### **CONCLUSION**

In general, the course participants appreciated the breadth of material provided within the course and the knowledge gained over the five days of training. Specific areas for consideration within future courses relate to more practical training on participatory approaches as well as tools for monitoring and evaluating the efficiency and efficacy of extension and rural advisory services. A request for follow up on in-field training was also requested but somewhat difficult to ensure given the ongoing conflict within Afghanistan.