

Observations and a request for inclusion in the CIPCAD/GCARD Final Statement for Action on strengthening capacities for ARD and enhancing efficiency of the innovation chain

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I strongly believe that in future, the capacity in the use of open and distance learning (ODL) and information and communication technology (ICT) – mediated learning can be the difference for agricultural communities between the potential for learning, skills building and capacity strengthening and the others a life of deprived knowledge and conflict.

The objective of this note is to provide the opportunities for exploiting the information and communication technologies (ICT) for building capacity in addressing the challenges for formal agricultural education in the context of emerging challenges for agriculture and its development.

1. Key Messages from various GCARD Regional Consultations

Following messages related to ICT and capacity strengthening are drawn from various GCARD Regional Consultations:

- there is a need for effective and efficient use of technology, especially ICT to improve the awareness and the competence of farmers and rural persons.
- strengthening the capacities – infrastructure, ICT, rural/urban markets, human resource capital – trainings and skill development of actors in value chain are critical to meet new and emerging needs
- the need to improve capacities for the use of new technologies, in particular, the biotechnology and ICTs, was identified as one of the priorities through consensus, recognizing:
 - (i) ICT's essential character as inputs for the technological development process in relation to every aspect of agriculture, food and natural resources management, and
 - (ii) ICT's strategic nature to cause substantial changes in productivity conditions for the small farmers.
- an ICT integrated system involving all the stakeholders could access it and share their last information. It is important to build on the several active networks to strengthen inter-country collaboration

2. Observations on ICT's role in Capacity Strengthening and a request for inclusion in the Final Statement, the following:

For aiming at strengthening the capacity among the agricultural communities, following may be considered:

- The educators in agriculture must determine a sound rationale for employing ICT, recognize that ICT is only part of the educational transformation process. the lack of infrastructure and the cost of the Internet bandwidth and equipment,
- There is also the need to address a number of other considerations. They include: the need to place a greater emphasis on quality assurance systems, to respond to the learning needs of all the stakeholders in agriculture, to deal with limited educational resources, to increase the access to and/or the capacity to develop up-to-date educational resources, counter the irrelevant courseware from abroad and to consider the implementation of mobile learning.
- Initiate extensive participatory consultations to identify the strategies – involve ALL the stakeholders in agriculture and in other sectors who influence agriculture.
- Adopt a more holistic approach cross-cutting the areas of agricultural production, research, innovation, development and education when designing and planning specific funding instruments.

- Bring more cross-disciplinary research into agricultural production, research, innovation, development and education programmes.
- Standardise and simplify the rules for all agricultural production, research, innovation, development and education programmes.

Policymakers must understand how to harness and utilize science and technology innovations effectively to achieve development goals such as food security, environmental sustainability, public health and economic development.

A dialogue is needed on how agricultural education can best serve all constituencies in agriculture as well as across local and global communities.

One of the drawbacks of the higher education systems in many developing countries is that such education systems do not foster innovation.

Increasingly, problems and challenges must be addressed from a trans-disciplinary perspective by multidisciplinary teams of professionals. This requires academic institutions to make changes from their fundamental mission.

Advances in computing, ODL and ICT offers opportunities to address such challenges, to create new modalities and settings for learning, and to make improvements in educational availability, effectiveness, and practicality.

Electronic communication systems are at the centre of the information transfer process. ICT, especially the Internet, is dramatically reducing the cost of disseminating knowledge. ICTs allow communities with diverse cultural and socio-economic backgrounds to share common values and combat common causes in the interest of humanity as a whole. This is part of a 'knowledge society'.

There is a need to move from the disciplinary and department based educational system to a transdisciplinary mode to address the complex multifunctional nature of agriculture. The apparent solution is to 'create space' for a dialogue. Such "transaction spaces" facilitate collaboration between knowledge producers and the contexts of application. In general, "boundary-" or "border-work" provides a framework and insights for understanding and implementing "cross-disciplinarity" as a boundary-crossing project.

Creation of such space for dialogue is the core principles of GFAR. As such, GFAR could initiate creation of space for a dialogue with support from other major partners.

GFAR and its partners could organize a multi-stakeholder forum on agricultural education with all the stakeholders. The forum will bring to bear the latest research on new strategies and actions related to agricultural education. This forum, among other things, will provide a platform for international exchange and learning from experiences and for sharing international experiences related to agricultural education.