

**Concept note**  
**Regional CAC consultations on establishing a National ICT platforms for Agricultural  
Research and Extension**

**Bishkek, Kyrgyz Republic, 7-9 December, 2016**

**A vision of how ICARDA's science and expertise will help drylands countries improve people's livelihoods**

*"It is uniquely positioned today to solve the problems of tomorrow with its highly skilled and committed staff, management and Board, building on the institutional resilience demonstrated after departing from headquarters in Syria – and decentralizing to key locations where there is a pressing need for agricultural science and innovation to improve people's lives..."*

*"We need to be more innovative, more proactive and extend the use of multidisciplinary and integrated approaches to solve complex problems. We will also have to strengthen a results-oriented culture throughout the organization and strengthen the monitoring and evaluation of our results and impact. My vision to make this happen is: ... to become a high-performance center with a distributed architecture, we need a world-class ICT infrastructure. Our scientists and management will have a robust information platform where we can collaborate anywhere, anytime..."*

Aly Abousabaa, DG, ICARDA

**Background.**

Agriculture is a sector that holds great promise for socio-economic growth in Central Asia and the Caucasus (CAC). Economic growth is a key success factor for reducing undernourishment, but it has to be inclusive and provide opportunities for improving the livelihoods. Enhancing the productivity and incomes of smallholder family farmers is the key to progress<sup>1</sup>. In fact, agriculture is around four times more effective at raising incomes among the poor than other sectors<sup>2</sup>. It has been amply demonstrated that enhancing the ability of farming communities to connect with knowledge banks, networks and institutions via information and communication technologies (ICTs) has improved their productivity, profitability, food security and employment opportunities substantially<sup>3</sup>. Agriculture also has significant linkage in its operations with other related sectors such as rural development, natural resource management, banking, insurance, media, governance, transportation and logistics management. Individuals, public enterprises and the private sector all have important roles to play in the agriculture sector.

Many innovative approaches and solutions generated through research and agricultural practices are not implemented and adopted by wider range of agricultural producers due to poor linkages and lack of interaction between different actors of innovation system. On the other hand, agriculture increasingly becomes knowledge-intensive, and the availability of the right information, at the right time, in the right format, and through the right medium. The availability, accessibility and applicability of agricultural research outputs are keys to addressing a range of issues related to food security.

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<sup>1</sup> <http://www.fao.org/hunger/key-messages/en/>

<sup>2</sup> World Bank. 2008.

<sup>3</sup> World Bank 2011, Miller et al. 2013.

## **Innovation Platform approach of CGIAR Research Program on Dryland Systems.**

Supporting and facilitation of interaction between different actors of innovation system can give additional kinetic input to out-scaling impacts of research and development intervention in agriculture in Central Asia. To make it possible systems-based efforts are required to deliver demand-driven technologies to farmers and smallholders. Innovation platform is considered as one key elements of the CGIAR Research Program on Dryland Systems (CRP DS) pursuing a new approach to integrated and 'holistic' agricultural research, since it promotes multi-disciplinary research through multi-stakeholders approach.

The CRP DS in Central Asia uses innovation platform approach to engage a range of stakeholders into collective actions to identify and alleviate the constraints to productivity growth and the conditions that enable sustainable intensification and diversification, and improve the access to quality seed materials, varieties, breeds, data and knowledge, advisory services, technologies, economic incentives that are needed to enhance the resilience of smallholder farmers, and rural communities.

This approach is based on participatory planning and multi-disciplinary research and work with end-users and beneficiaries to test and scale out innovations, technologies, and research methods, multi-stakeholders dialogue, and also involving partners from the national research, policy, development and civil-society sectors. Innovation Platform (IP) identifies bottlenecks and opportunities in production, marketing and the policy environment, and therefore IP identifies and implements technologies to improve production to fulfill market demand. Therefore, the Innovation Platform is recognized by CRP DS stakeholders as an open platform for different players to pursue technology, institutional and policy options for enhancing productivity and managing risks through diversification sustainable intensification and integrated agro-eco-system approaches in DS CRP Action site.

Innovation Platform being as one of the key components of DS CRP CA flagship is aimed at out-scaling program impacts and facilitating:

1. perspectives, knowledge and actions of all DS CRP stakeholders;
2. innovative partnership for implementing collective actions;
3. diagnostic tool, identifying and justification of actions and changes across the economic, social, environmental, livelihoods and welfare of end users and consumers;
4. technological, institutional and policy options towards reducing vulnerability, improving productivity demand and setting in place innovations.

CRP DS envisages that agricultural research for development within the Central Asia region must be accompanied with effective process for inclusive participation in the development and out-scaling of technologies, moving away from linear approaches of technology development and dissemination, and thereby addressing priority needs for rural communities and farm households. Innovation Platforms play important role to catalyse joint action. Innovation platforms can help where there are multiple interdependent stakeholders who operate in complex settings, where there are institutional barriers hampering development, competition or conflict is likely to occur, and where there is a need for experimentation.

IP uses a combination of joint learning systems and approaches to catalyze the robust engagement of relevant stakeholders during the DS CRP implementation period. Innovation platform is realized and used through:

- participatory approaches and collective action, such as participatory research and extension approaches, development management, learning, agro-ecosystem management, integrated production systems;

- dissemination pathways that include interactive learning between different innovation stakeholders, farmer collective action, market led technology adoption, and participatory market chain approach;
- functional learning through systemic joint analysis, system analysis, data management, research methods support, documentation, and experiential learning and information /knowledge sharing among platform participants

The ways of addressing challenges of Agricultural Innovation Systems (AIS) were identified within IP workshop held Bishkek 8-11 December 2014, and online discussions on the role of Agricultural Innovation Systems (AIS) in Central Asia and Caucasus countries and China towards more sustainable food security and nutrition, conducted from the 6th of May until the 9th of June 2015, which gathered 84 comments from 17 countries. Those two consultations conducted within Innovation Platform activity of CRP DS highlighted key interventions needed for further development of AIS, such as:

- Enhancing linkages between research and extension domains through interactive, dynamic and flexible process, and better contact between institutions. It will help bringing knowledge, technologies, and services to rural and agricultural population and improving their capacities to innovate. There are obviously bottlenecks and needs of extension system in CAC, and most of them are caused by low potential of existing RAS environment due to low investments to extension services and absence or poor it's institutionalization that causes fragmentation and duplication of effort.
- Establishing an agricultural innovation institution: it could serve as platform of knowledge formation and technology transfer where different actors of AIS can benefit from knowledge sharing, coordination and innovations.
- Improving access to finances: adequate funding for improvement of material and technical capacities.
- Marketing products and services provided by agricultural research, education and extension institutions: it will help attracting both public and private investors.
- Establishing of a unified information system: ICT serve as useful tools for development, transfer, application and dissemination of agricultural information and knowledge to increase agricultural productivity and income. However, there is still a communication gap between agricultural research, academia and rural areas. Eventually, massive changes such as ICT fast growth, urbanization and climate change require our knowledge and innovation systems to be far more responsive, flexible and forward thinking than before.

Considering above mentioned, It would be reasonable to organize the regional consultations with a thematic topic.

#### **Regional CAC consultations on the Role of ICT in Research and Extension.**

After the consultations with Central Asia and the Caucasus Association of Agricultural Research Institutions (CACAARI) and Central Asia, FAO Bureau for Europe and Central Asia, and the Caucasus Forum for Rural Advisory Services (CAC-FRAS), the common understanding on organizing the Regional multi-stakeholders consultations has been reached. Indeed the availability, accessibility and applicability of agricultural research outputs through the innovative ways to use ICTs in the rural domain, with a primary focus on agriculture are keys to addressing the current and emerging challenges in national agri-food systems.

In the light of this understanding, the Regional CAC consultations on the Role of ICT in Research and Extension will be held in Bishkek, Kyrgyz Republic, from 7-9 December, 2016.

The Regional consultations will help strengthen the linkages between Agricultural research and other stakeholders of AIS, as well as define collective and pragmatic actions to enhance the role of ICT in

agricultural research and extension towards towards more sustainable agri-food system in the CAC region. Participants will discuss the ICT solutions, as well as technology, institutional and policy options for enhancing productivity and managing risks through diversification sustainable intensification and integrated agro-eco-system approaches.

The objectives of this expert consultations will be to:

- Understand the framework required for a national ICT based Innovation Platforms;
- Presentation of model of national ICT strategy in agriculture and discussing national contexts;
- Discuss and come to common understanding how to use the of multidisciplinary and integrated approaches (ICARDA, FAO, ITU, CACAARI, CAC-FRAS) to solve complex problems in the region;
- Understand governance of ICT based Innovation Platforms and effective engagement IP stakeholders;
- Identify existing and required components;
- Collect and share case studies on ICT based IP models, success (or failure) experience in the regions with particular focus to agricultural research and extension;
- Review recent developments and discuss current challenges and possible solutions,
- Discuss current opportunities and technical steps of advocacy and fund raising and prepare a short policy communication paper/statement to be used for advocacy purposes;
- Identify synergies/possibilities of regional exchange and further cooperation.

**Participants:**

It is expected that about forty participants with attend the consultations from Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, including representatives from the Ministries of Agriculture, National Telecom Agencies/Ministries, Rural advisory services (RAS), National agricultural research systems (NARS).

**Proposed budget:**

It was agreed the Participation Head of the NARS will be covered by Innovation Platform budget, while participants from other sectors will be supported by CACAARI and CAC-FRAS.