

CGIAR Regional Program for Sustainable Agricultural Development in Central Asia and the Caucasus (CAC)

Sixteenth Steering Committee Meeting

The meeting started with a field tour to Dryland Systems CRP research sites in Fergana province on 27 August 2014, and continued with two-day sessions held on 28-29 August 2014 in Fergana, Uzbekistan. Senior officials responsible for national agricultural research from Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan as well as Directors General or their representatives from the international agricultural research centers attended in their capacity as members of the Steering Committee. Tajikistan's delegation was not able to participate. Observers from a number of international development and donor organizations based in Uzbekistan also attended the meeting (see [here](#)).

The meeting aimed at providing overall strategic, technical and policy guidance for the Program, reviewed the progress made during the past year and made a number of recommendations and decisions concerning the Program in general and the Program Facilitation Unit (PFU) in particular (see [here](#)).

Introductory session

The meeting was opened by S. Nurmatov. He welcomed the participants on behalf of the Government of Uzbekistan and expressed his appreciation for the contribution of the consortium of agricultural research centers, based in Tashkent, Uzbekistan, to rural development in Central Asia and the Caucasus. He briefed the meeting about achievements and challenges of agriculture in Uzbekistan. Uzbekistan pays high attention to increasing production of high-quality fruits, vegetables and grapes as a result of shift in agricultural policy since its independence in 1991. The country annually produces around 16m tons of fruits and vegetables. Mr. Nurmatov made a reference to the international conference titled 'The Most Important Reserves of Implementing the Food Program in Uzbekistan', which was held in Tashkent, in June 2014. In conclusion, he stressed the importance of research and innovations in ensuring food security in the world and wished the Steering Committee a successful meeting and an enjoyable stay in Uzbekistan.

K. Shideed welcomed the participants on behalf of ICARDA, the convening Center of the consortium. He expressed the strong continued commitment of ICARDA to agricultural research for development in the CAC Region. ICARDA follows closely the priorities agreed with partners in the areas of crop improvement and germplasm enhancement in mandate crops, conservation agriculture, salinity and on-farm water management. He described the decentralization process that ICARDA recently introduced. A tribute was paid to late Dr Zakir Khalikulov, Deputy Head of the PFU and one of the founders of the regional consortium who passed away in February 2014.

J. Parr (CIP), co-Chair of the Steering Committee, shared with the participants some thoughts on the Program contents and stressed the importance of the meeting. He expressed his wish that this extremely beneficial cooperation serve for further strengthening the relations between international agricultural research centers and CAC countries.

Status of CGIAR Research Programs (CRP) in the CAC Region

J. Turok presented an overview of the CRPs currently implemented in Central Asia and the Caucasus, which include (a) Policies, Institutions and Markets; (b) Agriculture for Nutrition and Health; (c) Wheat; (d) Roots and Tubers; (e) Dryland Cereals; (f) Water, Land and Ecosystems; (g) Forests, Trees and Agroforestry; (h) Climate Change; and (i) Dryland Systems. It was noted that most collaborative research projects contain capacity building elements. In particular, the main

activities, results and constraints from first year of operation of the Dryland Systems Program were highlighted. The new, more integrated approaches require engagement of farmers and policy makers into the research process. Data, information and knowledge management are critically important for all CRPs.

M. Turdieva then made a presentation on policy implications of the research undertaken by the consortium. She used examples of variety testing and seed policies, plant genetic resources, conservation agriculture and water management. Conservation and use of plant genetic resources have been strengthened as a result of the policies adopted by national governments, which were informed by research outcomes. Policy makers were also briefed on the implications of international policies on access and benefit sharing. Several countries mentioned their existing laws and policies on genetic resources.

The role of policy making in ensuring the transfer of experimental results to wider implementation was highlighted during discussion. Evaluation of the impact that policies have on up-scaling and dissemination of research outputs needs to be part of the research-for-development process. However, policy development needs to be viewed in the broader context of national economy, taking into account the interests of multiple sectors. This is particularly relevant for the food, agriculture, water and energy nexus in Central Asia.

The new focus on participatory research approaches involving farming communities was welcomed by the Committee. The Committee encouraged paying greater attention to promoting impact of research outputs on policies in areas such as desertification; new varieties and seed multiplication; integrated pest management; productivity of pastures (increasing feed crops); forestry and agro-forestry; bio-drainage; and innovation systems in general.

Country priorities, needs and capacities

Representatives of national agricultural research organizations made presentations about ongoing collaborative research projects in their countries, expectations and views on future priorities. The need for continued capacity building was emphasized during the discussion (see [here](#)).

A. Tashmatov made a statement on behalf of CACAARI. He presented the Regional Forum's plan of work for 2014-2015, the outcomes of the recent governance review, and acknowledged the fruitful collaboration with the consortium. Enhancing the role of extension as the link between the knowledge system and the poor men and women farmer communities, is a key priority for CACAARI. Facilitating, encouraging and enabling foresight actions as well as preparations for the third Global Conference on Agricultural Research for Development (GCARD-3) are currently on top of the agenda (see [here](#)).

Thematic presentations on improving productivity and sustainability of agricultural production

Scientific highlights from collaborative research projects during the past year were presented by the following speakers (see [here](#)).

- Agricultural diversity, dietary diversity, and nutritional outcomes in Central Asia [Kamiljon Akramov, IFPRI]
- Improving water and energy productivity in lift irrigated areas of Central Asia [Akmal Karimov, IWMI]
- Results and perspectives of potato cultivation in CAC [Timur Abdurakhmanov, CIP]
- Mainstreaming biodiversity of fruit trees to sustain production systems [Muhabbat Turdieva, Bioversity]

- Vegetable research and development network in CAC [Ravza Mavlyanova, AVRDC]
- Conservation agriculture in rainfed areas, winter wheat and spring wheat improvement [Alex Morgounov, CIMMYT]
- Conservation agriculture in irrigated areas [Aziz Nurbekov, ICARDA]
- Winter wheat: performance, achievements and inter-phase with CRP Dryland Systems [Ram Sharma, ICARDA]

Working Groups on policy implications of collaborative agricultural research in CAC

Three thematic working groups discussed implications of collaborative agricultural research outputs and outcomes for policy making in the CAC countries. The objective was to identify Research for Development priorities for CAC region that could be considered in the second round of CGIAR Strategy and Results Framework (SRF) and its CRP portfolio. The discussion was structured along five main items: (a) research priorities; (b) outputs available for up-scaling; (c) case studies for impact assessment; (d) case studies to demonstrate the effectiveness of investment into ARD; and (e) policy, socio-economic issues and capacity building.

Working Group 1: Crop improvement and germplasm enhancement, increasing crop productivity, genetic resources, seed production systems

(a) Research priorities:

- Collecting and long-time storage of seeds;
- Use of wild relatives and traditional/local varieties in breeding for increasing genetic diversity, rehabilitation/multiplication of those varieties; improving seed production systems;
- Selection of high-yielding varieties tolerant of biotic and abiotic stress
 - Wheat: quality, salt/frost tolerance
 - Vegetables: heat/salt/drought tolerance, resistance to diseases
 - Barley: winter varieties
 - Potato: varieties adapted to the long day conditions (LDC), early-maturing. Varieties for crop rotation (wheat-cotton)
 - Horticultural crops: drought/frost/salt tolerance
- Constraints of global significance should be used as criteria for identification of target regions for CRPs (soil salinity, frost resistance, etc.), rather than area and population numbers;
- Introduction of neglected and underutilized species (NUS) into production to mitigate unfavorable environmental conditions including climate change (farmers' access to germplasm, development of seed production systems, breeding);
- Diversification of crops and varieties in the context of climate change;
- Enhancing the role of private sector and farmers in seed production systems and development and introduction of tools to sustain seed production at farmer level.

(b) Outputs available for up-scaling:

- Winter wheat varieties resistant to the predominant diseases should cover all arable land. It is possible to reach this goal through the intensive multiplication of new varieties, development of seed production systems and farmer access to new resistant varieties;
- New varieties and technologies for all-season production of vegetables;
- Dissemination of technologies on "every-other-furrow" irrigation (Partially Root Drying-PRD) among farmers for more efficient water management;
- Dissemination of local varieties of horticultural crops adapted to the difficult cultivation conditions to ensure nutritional value, resistance and income of production on marginal land (salinity, water scarcity, etc).

(c) Case studies for formal impact assessment:

- Assessment of new varieties' impact on food security (across projects of all Centers in the Region);
- Assessment of impact of capacity building (human resources development) on sustainable agricultural production (across projects of all Centers in the Region).

- (d) Case studies to demonstrate the effectiveness of investment in ARD:
- Increasing genetic diversity of crops through introduction of new varieties and distribution of local resistant varieties;
 - Training courses to bridge critical capacity development gaps at national institutions;
 - Training on modern breeding and seed production methods including bio-technology;
 - Training on field study approaches (experimental design, data collection and processing with the use of latest tools and methods).
- (e) Policy, socio-economic issues and capacity building:
- Improvement and harmonization of national legislative frameworks in CAC countries to ensure germplasm exchange at Regional level;
 - Development of national regulations on Plant Genetic Resources for food and agriculture (PGRFA);
 - Improving of national regulations to ensure customs exemption for importing PGRFA for research.

Working Group 2: Sustainable intensification, diversification in integrated systems: crop-livestock integration; agro-pastoral systems management; vegetable and fruit crops

- (a) Research priorities:
- Sustainable soil management - legume crops are important in the CAC Region;
 - Moving from cotton-based production to more diversified production alternatives, with agro-mechanization, potential to strengthen cooperation with IFAD, WB, ADB;
 - Temporary storage versus on-farm storage of water;
 - Characteristics/indicators of Dryland Systems;
 - Specific production systems in the Caucasus, e.g. Home gardens, Mountain Agropastoral Systems;
 - Economic modeling can be a tool for recommendations to enhance the operation of cooperatives, micro-enterprises, women entrepreneurship etc.;
 - More emphasis on rainfed and agropastoral systems, linked to decreasing risk, i.e. adaptive to long-term climate change scenarios, built on what we already know, and intensification/diversification; measuring environmental impact;
 - Gender issues - the feminization of agriculture has become a fact with women as the custodians of the land due to male labor migration. How are women engaged in ownership and management of the resources? Can targeted subsidies adequately address this issue?
- (b) Outputs readily available for up-scaling:
- Active engagement with long-term policy and planning processes – 3-5 years pipeline. CGIAR evidence based briefs to inform policy making;
 - Prioritizing a two-crop system;
 - Improving water use productivity and diversifying income sources;
 - Salinity tolerant crops/varieties and trees varieties to reclaim degraded unproductive land. For example, liquorice in Aral Sea Region;
 - Use of mobile handsets for knowledge transfer to the farmers;
 - Encourage private sector investments, e.g. potato;
 - Irrigation technologies: water use scheduling and other technologies are available at pilot level;
 - Potato mini-tuber production – model developed in Uzbekistan can be transferred to Kyrgyzstan to address water use efficiency;
 - Winter wheat drought tolerant varieties;
 - Use of remote sensing technology to monitor, target investments and obtain better data.
- (c) Case studies for formal impact assessment:
- Regional Strategy for Transforming and Strengthening of Agricultural Research and Innovation Systems for Development in the Central Asia and Caucasus region supported by CACAARI, adopted by all CAC countries in 2012;
 - Agricultural Science and Technology indicators program was conducted in 5 of 8 countries: Tajikistan, Kyrgyzstan, Armenia, Azerbaijan and Georgia, and partly in Uzbekistan. The needs assessment of Agricultural Information Systems is in progress;
 - Conservation Agriculture – applied on 2m hectares and ready for impact evaluation;

- Establishment of vegetable network - impact of crop/variety diversity for income and nutrition.

Following actions were proposed:

- develop socio-economic impact studies to evaluate impact or recommend research outcomes;
 - disseminate success stories, e.g. project in Georgia on crop rotation scale up in use of nano-technologies, e.g. herbicides;
 - bio-technology applied to seed treatment; dissemination among poor farmers;
 - intensification of production systems;
 - address land degradation;
 - identify training courses to bridge critical capacity development gaps at national institutions.
- (d) Case studies to demonstrate the effectiveness and importance of investment in ARD:
- Conduct a training needs assessment of the national agricultural research institutions based on the recommendations above, and address emerging knowledge gaps.
- (e) Policy, socio-economic issues and capacity building.
- Need for greater regional cooperation on use and conservation of natural resources, and advocacy for policy change on strategies for climate change mitigation and adaptation.

Working Group 3: Natural resources management, including conservation agriculture, water and land management, climate change adaptation

- (a) Research priorities:
- Increasing shortage of water resources;
 - Decreasing of land resources capacity;
 - Climate change impact;
 - Decreasing of biodiversity.
- (b) Outputs available for up-scaling:
- Experience of extension service;
 - Increasing number of new crops (drought and salt tolerant, high yielding and high value);
 - Introduction of water resources management;
 - Crop diversification (introduction of crop diversity);
 - Promotion of conservation agriculture technologies under rainfed conditions (introduction under irrigated condition requires further research);
 - Armenia's experience in fish production.
- (c) Case studies for formal impact assessment:
- Experience of introduction of conservation agriculture technologies;
 - "Bright spots" project (adaptation to the existing risks in agriculture);
 - Integrated Water Resources Management in Fergana Valley.
- (d) Case studies to demonstrate the effectiveness of investment in ARD:
- Results of crop improvement and breeding – varieties;
 - Identify training courses to bridge critical capacity development gaps at national institutions;
 - Capacity building for research innovations at international centers (including CGIAR);
 - Employment in agriculture;
 - Changes in food patterns in the Region;
 - Standardization of international regulations on natural resources use.

Centers' strategies for work in the CAC Region

The brief presentations described strategic planning processes at global level as well as key elements of work in the CAC Region. Whereas some Centers published their reviewed strategy documents (CIP, IWMI), others are revising their plans in consultation with the partners (ICARDA) (see [here](#)). The need for up-scaling

of research outputs was emphasized. Training of young scientists was also recognized as integral part of future work in the Region.

Wider linkages with international development and donor organizations

Representatives of Uzbekistan-based country offices of Asian Development Bank, World Bank, UNDP, GIZ, SDC and Interstate Commission for Water Coordination (ICWC Scientific Information Center) made brief statements on their current directions of work and linkages with research. The potential for synergies and collaboration with the consortium was mentioned in all presentations (see [here](#)).

Priorities for donor investment in agriculture include horticulture, livestock, and water. There is a high interest, based on Government priorities, in strengthening rural advisory services. Water Consumers Associations were highlighted as a key concept for supporting extension services to farmers. The World Bank mentioned investment plans to support research institutes in Uzbekistan.

Recognizing the high potential for synergies along the research-for-development continuum in agriculture, the Steering Committee recommended a closer collaboration with the international development and donor organization in the CAC Region.

Open session of Steering Committee

Minutes of last Steering Committee meeting

The decisions and recommendations were reviewed (see [here](#)). A key recommendation was to organize the Ministerial-level meeting on contributions of agricultural research to the wider development challenges in CAC (see below).

Preparation for Ministerial-level meeting in Turkmenistan, 3-4 December 2014¹

The Ministerial-level meeting “Food security and environmental sustainability in Central Asia and the Caucasus: contributions of agricultural research” is planned to be held 3-4 December 2014 in Turkmenistan. The two-day Meeting is organized by the Government of Turkmenistan in collaboration with ICARDA. The first Ministerial meeting, held in Kyrgyz Republic, in 2001, adopted the Issyk-Kul Declaration, which provided a roadmap for collaborative agricultural research in CAC.

S. Shiryev expressed the commitment of the Government of Turkmenistan to hosting the event in Avaza, at the Caspian Sea coast. According to Ambassador Shiryev, the purpose of the Meeting is to promote further development of agricultural research, foster collaboration between scientists in CAC and their international counterparts with a view to establishing joint projects for the development of agricultural science, contributing to food and nutrition security and environmental sustainability. It also aims at facilitating and promoting conducive policies in these areas. The Government of Turkmenistan expects a joint declaration to be adopted at the end of the meeting.

During the discussion, Steering Committee members recommended that the meeting demonstrate the clear benefits and economic returns on investment in agricultural research. The meeting is organized with a view to mobilizing more resources for research in the CAC Region.

The agenda will include two-three keynote presentations followed by country reports. The keynote presentations could focus on the contributions of research and technology to addressing the bigger challenges of climate change, desertification and water. It was proposed that a template be developed for country presentations.

¹ In mid-November 2014, Turkmenistan authorities informed ICARDA that, due to unforeseen circumstances, the meeting cannot take place on these dates and proposed alternative dates in November or in December 2014. Given the very short notice and the complex administrative and logistics preparations for the meeting, it was decided to postpone the meeting till 2015.

Ministers of Agriculture from all eight CAC countries will be invited to the meeting. In addition, each country delegation will include expertise in food, agriculture, water management and environment. The heads of national agricultural research organizations will also be invited to participate in the event. It is expected that Directors-General of the international centers, members of the consortium, will participate in the meeting.

The Committee discussed participation of international development and donor organizations. Recognizing the importance and timeliness of the event, it was recommended that following international organizations be invited: CGIAR Consortium Office, United Nations: FAO, IFAD, UNDP, UNEP-GEF, UN Special Representative for Central Asia; development banks: ADB, IDB and the World Bank; development agencies: DFID, ECFS, European Commission, GIZ, JICA/JIRCAS, KOICA, SDC, USAID and others; and Regional organizations Inter-State Commission for Water Coordination (ICWC), International Fund for Saving the Aral Sea (IFAS), Inter-State Commission for Sustainable Development (ICSD) and Central Asia Regional Environmental Centre (CAREC).

Invitations to all participants will be co-signed by Deputy Prime Minister of Turkmenistan and Director-General of ICARDA. The correspondence will be channeled through Ministry of Foreign Affairs of Uzbekistan.

It was agreed to set up a small Organizing Committee consisting of (a) representative of the Ministry of Foreign Affairs of Turkmenistan; (b) ICARDA, (c) Tajikistan, (d) CIP the latter two being the outgoing Co-Chairs of the Steering Committee; and (e) PFU Head. Some members suggested that FAO and CACAARI be also invited to serve as members of the Organizing Committee. The Organizing Committee could meet at the occasion of the conference on rural advisory services, organized by CACAARI in Bishkek, in mid-November 2014. Several Center representatives offered to assist with the communications about the event.

Whereas ICARDA will seek financial support for the event from several already identified donors, the Steering Committee agreed that the cost of the event would be covered, in principle, from the PFU budget and that additional voluntary contributions would be made by the Centers to cover the travel costs of the delegations from the CAC countries. The potential contribution of Turkmenistan Government to cover local costs of the event had previously been discussed.

The Steering Committee requested the PFU Head to follow up on preparations for the event.

Financial report and budget

The financial report and budget for 2013-2014 were approved without amendments (see [here](#)). It was confirmed that the PFU account at ICARDA was audited according to standard procedures.

Agreement on Program Facilitation Unit

Following short discussion, it was decided that an agreement between ICARDA and each Center participating in the consortium would need to be developed and signed. The basis for the agreement is the document describing the purpose, mode of operation, and services provided by the PFU to the participating Centers, which was adopted by the Steering Committee in September 2011. The Steering Committee requested the PFU Head to circulate the draft agreement by end of the year 2014.

Co-Chairs for 2014-2015

Following the principle of annual rotation, Azerbaijan and IWMI will act as Co-Chairs of the Committee in 2015. Recognizing the roles of Turkmenistan and ICARDA in co-hosting the Ministerial-level meeting, to be held in December 2014, it was agreed that the role of Co-Chairs be taken by Turkmenistan and ICARDA until end of the year 2014. The Steering Committee expressed its appreciation of the leadership and contributions made by Tajikistan and CIP, the outgoing Co-Chairs.

Resource mobilization

Steering Committee members highlighted the importance of resource mobilization particularly for the emerging implementation of the CGIAR Research Programs in the Region. Specific recent interactions with donors were mentioned, for instance IFAD, USAID, UNEP/GEF, JICA, European Union and Turkey. The financial contribution made by Russian Federation towards Dryland Systems CRP in Central Asia through the

CGIAR Fund was acknowledged. The PFU Head described interactions with World Bank mission designing a Regional Program on Climate Change Adaptation and Mitigation in Central Asia, and a recent meeting held with USAID regional and national agricultural officers. The Steering Committee recommended that a medium-term strategy on resource mobilization be prepared for discussion at its next meeting in 2015.

External review

It was agreed that a separate external review of the Program was not necessary. However, recognizing the various external reviews conducted at Center or CRP level during 2014-2015, and their potential implications for the collaborative work in CAC, the Steering Committee requested the PFU Head to prepare a brief analysis by 31 March 2015.

Dates and venue of next Steering Committee meeting

Azerbaijan invited the Steering Committee to hold its meeting in Baku, in autumn 2015. The offer was gratefully acknowledged. The Steering Committee requested that dates and draft agenda be circulated at least six months ahead of the meeting.

Any other business

Engagement of partner development and donor organizations in the Steering Committee was discussed. The role and contributions of FAO and UNDP regional offices were mentioned in the discussion. Representation of donors in Steering Committee meetings was generally supported and encouraged. The Steering Committee recommended that representatives of relevant organizations continue to be invited as observers to Steering Committee meetings.

Recognizing the increasing number of projects in Tajikistan, the Committee requested the PFU Head to facilitate a proper administrative framework for project implementation with the Government of Tajikistan.

Conclusions and closure

In his closing remarks, S. Nurmatov thanked all national representatives, directors and scientists of the international centers for their active participation in the meeting. He mentioned that the meeting was very important in reviewing progress and setting priorities for next year. He also highlighted the important role of the Program in building bridges between the CAC countries and the international research community.

K. Shideed congratulated the heads of the national agricultural research organizations and other participants from the CAC countries for their excellent achievements and expressed his expectation that the partnership will further be strengthened. He stressed the importance of a greater ownership of the Program by the countries themselves. He emphasized the excellent collaboration and the hospitality of the Government of Uzbekistan, for hosting the consortium in Tashkent. Dr Shideed appreciated the work done by the PFU team in preparing for this meeting and making it successful.