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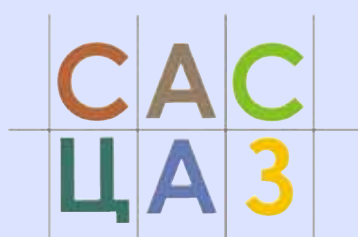
GCARD | 2010

Historic Dialogue between Agricultural Scientists, Farmers, Policymakers, and Other Key Development Actors Charts New Path Towards Ending Hunger and Poverty

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CGIAR Collaborative Research Program for Sustainable Agricultural Development in Central Asia and the Caucasus



CGIAR Collaborative Research Program for Sustainable Agricultural Development in Central Asia and the Caucasus is being implemented in the region since 1998. The goal of the Program is to contribute to achieving the overall goal of food security, economic growth, environmental sustainability and poverty alleviation in the countries of Central Asia and the Caucasus. Its immediate objective is to assist the CAC countries in achieving sustainable increases in the productivity of crop and livestock systems through development, adoption and transfer of production technologies, natural resource management and conservation strategies, by strengthening agricultural research and fostering cooperation among the CAC countries and international agricultural research centers.

WELCOME MESSAGE

Solving labor productivity issues and ensuring food security in Kazakhstan as well as in a whole CAC region is directly connected to the research, extension, productivity increase of R&D (Research and Development) and cutting-edge technologies transfer. The agrarian science should ensure the right level of actions by forming the necessary system of new knowledge generation and implementation. In achieving of these goals, the contribution of the CGIAR Program for Sustainable Agricultural Development in Central Asia and the Caucasus has made commendable accomplishments for more than past 10 years.

Undoubtedly, the activities of the CGIAR Program have concentrated in this area in binding the countries of the region in one joint capacity aimed at the poverty elimination and ensuring of food security.

The Research Institutes of JSC “KazAgroInnovation” are actively collaborating with the CGIAR Centers and are ready for the further strengthening and expanding cooperation. Through the joint research activities in Kazakhstan, new improved crop varieties have been developed and distributed. The effective cultivation and irrigation methods for reducing land degradation and integrated pest management have helped to improve the farmers’ livelihood in the region. One of the achievements of joint research is the conservation agriculture technologies introduced in Kazakhstan. This is the result of fruitful cooperation between CGIAR Centers, ICARDA and CIMMYT.

Along with an overall goal of agrarian science development - productivity increase in agriculture, CGIAR Program has also contributed to the partnership between the member countries and strengthening the friendship among the scientists and research institutes.

We are sure that the next Steering Committee Meeting of the CGIAR Program for CAC, which will take place in June, 2010 in Ashgabat, Turkmenistan will complete constructively and effectively.

Respectfully yours,

**Kenenbaev Serik,
President, JSC “KazAgroInnovation”
Republic of Kazakhstan**



IMPORTANT EVENTS

Historic dialogue between agricultural scientists, farmers, policymakers, and other key development actors charts new path towards ending hunger and poverty

“Montpellier Roadmap” Outlines Priorities of Farm Research for Development Agenda; Focus on Farmers, Women in Decision-making

The Global Conference on Agricultural Research for Development (GCARD) 2010, was held in Montpellier, France from 28-31 March 2010. This meeting brought together more than 1,000 researchers, policymakers, farmers, donors, and members of civil society from every region of the world to develop a new agricultural research for development (AR4D) architecture that is geared toward reducing both hunger and poverty. The “Montpellier Road Map” was presented at the close of the conference to provide a framework for linking science and innovation to the needs of farmers and the rural poor.

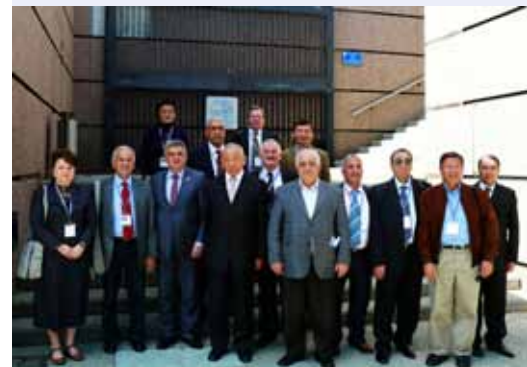
A draft Strategy and Results Framework (SRF) was presented at GCARD to elicit further feedback from stakeholders on eight thematic areas of research. The SRF guides the development of a results-oriented research agenda that will address major global challenges. These discussions and inputs will be used to inform the final version of the strategy and an initial set of mega-programs adapted from the thematic areas. The hope is that three of the mega-programs will be fast tracked and ready to function by the end of 2010. The themes of the proposed key areas of research included: agricultural systems for the poor and vulnerable; enabling agricultural incomes for the poor; optimizing productivity of global food security crops; nutrition and health; water, soils and ecosystems; forests and trees; climate change and agriculture; and agricultural biodiversity.

In response to the CGIAR’s proposed thematic areas, participants suggested that there was a need for greater refinement of the breeding and agricultural systems for the vulnerable programs. Specifically, the CGIAR was asked to broaden its focus to include crops other than the major food staples of rice, maize, and wheat and for the agricultural systems program to be defined from regional to global as opposed to global to regional.

Around 30 representatives from the CAC region, including researchers, farmers, representatives from NGOs and the private sector, and Government officials, also participated in the GCARD Meeting. A paper on ‘CACAARI Strategy for Positioning at GCARD’ was approved and implemented. Each CAC participant was equipped with a copy of “GCARD CAC Highlights for Participants”, - a brief document prepared by the CACAARI Lead Consultant Dr. Beniwal for GCARD delegates. Acad. Hukmatullo Ahmadov, Chair, CACAARI presented a report on “Agricultural Research for Development in Central Asia and the Caucasus: State, Issues, Problems and Perspectives”. In his presentation, he mentioned that CACAARI membership consists of almost 40 NARS institutions, one CG Center (ICARDA) and one Advanced Research Institute (AVRDC) and about 20 farmer and NGO members. He informed the participants about the Regional Review Process: E-Consultations and F2F Consultations, and presented CACAARI priorities and activities in CAC region. Also he highlighted institutional and cross-cutting issues where AR4D systems should be improved.

The conference participants endorsed the following characteristics for a more effective AR4D system, and as the baseline upon which to build and assess progress at the next GCARD in 2012.

1. Adopt a problem-solving approach to priorities with a focus on selectivity, with regional and regional organizations as the foci;
2. Focus on researchable or proven technologies and/or their delivery to meet farmer constraints on technology adoption;



Group photo of the delegation from CAC Region



Acad. Hukmatullo Ahmadov, Chairman, CACAARI

3. Address constraints identified through regional consultations e.g., human resource development, incentives for scientists, accountability and effectiveness of multiple partnerships.
4. Facilitate the rapid generation of innovations in support of the spread of knowledge and technologies to small holders and delivery of services to reach the poor;
5. Promote effective use of collective capacities, particularly networks, by strengthening key relationships among research, development (extension, seed suppliers, the banking sector) and farmer actors;
6. Actively achieve increased investments in human, institutional and financial resources;
7. Promote coordinated operational linkages among donors and development partners, aimed at monitorable development impacts;
8. Increase mutual and equal accountability among all stakeholders;
9. Commit to action;
10. Achieve credible monitoring, evaluation and reporting on what has changed.

The stakeholders who should commit to this AR4D system were outlined as the following:

- National policy makers of developing and developed countries;
- All stakeholders at the local, national, sub-regional, regional and international levels engaged in and/or supporting agricultural research knowledge and information systems including the CGIAR, and advanced research, educational, and extension institutions;
- Donors, foundations, intergovernmental agencies, including bilateral and multilateral institutions and development banks;
- Private sector, including small, medium and large agricultural input companies, food companies, agricultural banks, insurers and the agribusiness sector;
- Farmers organizations and CSOs/NGOs at all levels;
- Representatives of the poor and women;
- Stewards of the environment.

Sources: adapted from GCARD and CACAARI documents

RESEARCH HIGHLIGHTS

Collaboration of Turkmenistan with AVRDC - The World Vegetable Center

Vegetable production is one of the important branches of agriculture in Turkmenistan. This branch is a major supplier of nutritious and healthy food for the population of the country. The government of Turkmenistan takes significant measures for further expanding the area under vegetable crops, diversification of agricultural production, strengthening of crop breeding and introduction of advanced crop management practices.

Since 2006, Turkmenistan has been collaborating with AVRDC - The World Vegetable Center (WVG) within the framework of the Regional Vegetable System Research and Development Network (CACVEG). During 2006-2010, 69 accessions of 5 vegetable crops including tomato (17), sweet pepper (19), hot pepper (8), eggplant (4), cucumber (18), and vegetable soybean (3) were introduced by the WVG to Turkmenistan.

The scientists of the Research Institute of Crop Husbandry of Turkmenistan conduct research to identify promising lines and varieties of vegetable crops. As a result of these studies, promising lines and varieties of various vegetable crops with high yield and good fruit quality and adapted to hot climatic conditions of



Acad. Rasulmat Khusanov, former Minister of Agriculture and Water Resources, Uzbekistan



Farmer's Day at Research Institute of Crop Husbandry, Turkmenistan

Turkmenistan were identified. The promising lines identified include tomato (CLN 1466 E, CLN 2498 E, CLN 2545 E, CLN -2885D, LBR-9 and LBR-11), sweet pepper (0037-7011, 0037-7645, 0437-7031, 0636-6007, 0636-6018, 9946-2192, PBC-271 and PBC-732 sel), hot pepper (0337-7069, 9950-5791, 9955-15 and PBC 142), vegetable soybean (AGS378 and AGS431), and cucumber (09 WVC C-17, 09 WVC C-18 and 09 WVC C-19). Identified for a number of valuable marketable traits, a number of these lines are used in breeding, and a few of them have been included in competitive varietal trials.

Since 2007, Farmers' Days are organized annually on the fields of Research Institute of Crop Husbandry, with participation of over 60 representatives of state and farmer organizations, researchers and others. They learn about new promising lines of vegetable crops and other achievements of the Institute on vegetable growing and melon-growing. During such events booklets and seeds are distributed among participants.

The representatives of Turkmenistan also participated in training courses on vegetable research: Mr. Bayrammurad Seyidov - in AVRDC (Taiwan) training and Mr. Tirkesh Annakulyev - in the Regional training course. Scientific articles were published by scientists of Research Institute of Crop Husbandry in the international journals. They also participate annually in international meetings organized by the World Vegetable Center and its Regional office in Tashkent.

Ravza Mavliyanova
AVRDC

Seed potato production by means of True Potato Seed (TPS), a serious option for the highlands of Central Asia

Potato is an extremely versatile crop since many parts of the plant can be used for propagation, not only seed tubers, which are the most commonly used propagation method, but also sprouts, axillary stems, and more recently in-vitro plants, microtubers, etc. They all are part of the so-called vegetative multiplication method. In this article you will discover that potato can be also multiplied by using the true seed produced by the berries (sexual multiplication), at the condition that the seed comes from well-identified crossings between two known parent materials (hybridization) that can give origin to a large percentage of plants having more than 85% of traits that are similar to those of the mother plants.

Potato Seed Production

Potato is traditionally grown vegetatively through seed tubers. This results in continuous accumulation and further increase of various tuber-borne diseases in seed tubers and consequent reduction in crop yields. These diseases are represented by viruses that can be transmitted by aphids and by contact, being the cutting of seed one of the most important way of virus transmission. In the developed world, to maintain high levels of yield, the potato varieties released from time to time receive support from well developed disease-free seed production programs including the implementation of tissue culture on a large scale plus the detection of virus diseases by well-equipped laboratories. The other less favored countries are then obliged to import from time to time expensive seed tubers of varieties that are poorly adapted to local conditions since the selection takes place in Western Europe.

In the traditional seed system big yield losses are observed if the same seed stocks are used repeatedly over the years. The viruses are the main entities responsible for heavy yield losses in potato. The degenerated seed stocks need to be cleaned up to make it free of degenerative viruses and revive their yield potential. This requires sophisticated equipments. The whole procedure of making seed stocks free from viruses is very expensive and produces only limited quantity of quality tuber seed. Therefore, the inadequate availability and the high cost of quality seed tubers have been recognized as the major constraints hampering potato production in the developing countries. In an effort to search for



Laksh, Jirgatal district, Tajikistan. A TPS nursery bed



Pskem, Bostalnik district, Uzbekistan. TPS plants 60 days after sowing

less expensive seed production methods, many alternative technologies including True Potato Seed (TPS) have been investigated by the International Potato Center (CIP). Among the various alternatives of producing quality seed potatoes, TPS technology revealed to be the highly cost effective and appropriate for the resource poor farmers of less developed countries.

Agronomy/seed production from TPS

The most effective method to produce either ware or seed potatoes from botanical seeds (TPS) is the so-called direct seeding technique that is carried out in nursery beds where the botanical potato seed is sown very densely and plants remain until the time of harvest. Because of the high density, the average size of the potato that are formed will be relatively small, between 10 and 45 mm. Seedling tubers are the small tubers produced from plants grown from TPS in densely sown beds. Compared with seed tubers, seedling tubers (also known as F1C0 or first clonal generation from the first hybrid generation) are easier to maintain disease-free in the controlled conditions of the planting bed. Package of practices for the production of seedling tubers from TPS comprises: prepare a nursery bed with very loose soil mixed with finely powdered cow manure. Sow the seed at 25 x 4 cm spacing (100 seeds/m²). Provide earthing up along with application of half N after 30 days. Earth up again 45 and 60 days after sowing. Then cut the haulms after 120 days. During the growing cycle spray pesticides as needed. Threat the seedling tubers with 0.3% Boric acid and store in cold storage for next season crop.

Priority areas for TPS dissemination

TPS technology has a wider scope of adoption in areas where (i) quality tuber seed of a variety cannot be produced and maintained in desired health conditions due to high pressure of diseases, particularly degenerative viruses; (ii) yields are low due to poor quality seed ; (iii) storage facilities are lacking; (iv) transportation of seed potatoes from far distant seed producing areas is expensive; (v) cheap labor or own manpower in the family is available and (vi) consumers do not have any preference for specific tuber characteristics.

True Potato Seed (TPS), which is sexually produced, can successfully be used as a propagule for potato production in areas where traditional systems of potato production from tuber seed has limitations. It is the kind of potato seed production technology that should be considered for the highlands of Tajikistan and Kyrgyzstan. In Tajikistan, for instance, due to the scarce results obtained in the past by projects which emphasized the expensive tissue culture as main seed potato production technique, TPS represents the best option for poor farmers. In the highlands of Tajikistan, the TPS family LT-8 x TS-15 has been showing very good performance and adaptation since 2005 and it is now multiplied by many organizations and farmers (Institute of Horticulture and Vegetables, German Agro-Action, Global Partners, NGO "Tukhmiparvar", the Aga Khan Foundation, etc.).

Carlo Carli
CIP

New hot pepper varieties released in Uzbekistan

Only one variety of hot pepper Margelansky 330 released in 1950 has been grown in Uzbekistan till the present time. Through the successful collaboration of scientists of the Uzbek Research Institute of Plant Industry with AVRDC - The World Vegetable Center and the introduction for research of new breeding lines, two new varieties of hot pepper with original fruits and flavor test have been developed and included in the State Register. Since 2009, variety Uchkun has been released and it is characterized by dark-green color fruits in technical maturity and dark-red fruits in biological ripeness. Released in 2010, variety Tillarang is attractive in early maturation by golden-yellow color fruits, which turns into scarlet color in full maturation.



Pskem, Bostalnik district, Uzbekistan. Harvest of seedling tubers from TPS families (F1C0)



New revealed variety of hot pepper Tillarang

Today farmers have the opportunity of choice of varieties for cultivation. Both new varieties exceed Margelansky 330 twofold (27 t / ha) by yield, they have large fruits (30-35 g) and bear fruits longer up to autumn frosts, and they are suitable for processing and canning. New varieties Uchkun and Tillarang have been recognized by SVTC for use as standard varieties in Uzbekistan.

Ravza Mavlyanova
AVRDC

Project on “Improving Livelihoods of Smallholders and Rural Women through Value-Added Processing and Export of Cashmere, Wool and Mohair”, funded by IFAD

In Kyrgyzstan project staff selected the pilot sites in Naryn province, observed producers of cross-bred and fine wool sheep and established communication with them. The initial samples of felt products were collected from Lakhol and Min-Bulak sites to identify the best felt producers. Activities are in progress for importing and local production of the carding and felting equipment to support local felt producers.

In Badakhshan site in Tajikistan, selection of 8 pilot villages in the Askhar Zamirov Dzhamoat was completed. Project consultants and collaborators collected information on goat production at pilot sites. They interviewed goat producers (women) in each village, visually assessed their flocks, estimated the share of cashmere goat crosses in each flock, described husbandry practices, and collected fiber samples from cashmere crosses and local goats reared for meat.

In Khujand site in Tajikistan, collection of the general information on Angora goat production at pilot sites was started. Questionnaire was adapted for the survey of Angora goat producers to assess their flocks, fleeces in terms of suitability for spinning and describe their flock structure and husbandry practices. Information on women processors (the number of processors in the villages, income from yarn and knitting, share of overall family income, etc.) was collected to identify those who can be involved in the project activities.

The project will support local mohair goat producers through improved breeding practices and new shearing techniques. Women processing mohair will be provided by better equipment for yarn production.

Nariman Nishanov, Aziz Nurbekov,
ICARDA

Modeling of winter wheat growing in Central Asia Region

The first stage of the biophysical assessment component of multi-disciplinary ICARDA project on the “Impact of Climate Change on rural livelihoods in Central Asia” is coming to an end. It includes the selection of the sites representing the conditions of winter wheat growing in CA region and subsequent data collection on chosen experimental sites based on research work done previously within the framework of ICARDA and regional/country programs. With the view of site selection and data collection the members of the project team visited National Research Institutes to acquaint themselves with their scientific end experimental work and to give consultations on the CropSyst model application. All the planned works have been done in close collaboration with NARS scientists from the four countries - Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. At the present time the simulation of winter wheat growing has been started on the base of data collected in Uzbekistan.

Mariya Glazirina, Tulkun Yuldashev
ICARDA



The project supports rural women through improved fiber processing



Dr. Kholov, Director of the Institute of Soil Science of Tajik Academy of Agricultural Science familiarizes Dr. Sommer (ICARDA HQ) and T. Yuldashev with research work carried out at the Vakhsh site

Utilization of low quality water and reclamation of abandoned saline lands by promotion of herbaceous energy crops

Irrigation with low quality water (artesian and drainage) can act as an alternate water resource and thus plays an important role in saving freshwater resources as well as promoting agriculture in the marginal arid lands of the Aral Sea Basin. ICBA in partnership with NARS initiated the evaluation of two varieties (Fayz Baraka and Novinka) of topinambur under abandoned salt-affected lands in Takhtakupur, Karakalpakstan. Investigation on salt tolerance and impact of irrigation with marginal quality water on the growth and tubercle yields quality of topinambur varieties were also started on saline sandy soils at the Kyzylkesek site, Uzbekistan. Topinambur (*Helianthus tuberosus* L.) is a tuberous-rooted perennial herbaceous energy crops of the family of Asteraceae widely introduced into the drylands agriculture production system. This drought/and salt tolerant crop is economically useful for feeding livestock and a good feedstock source for renewable energy and paper production.

Evaluated topinambur cultivars were sown as main crops in the mid of April 2009 at air temperature ranging +14.5 – +17.7°C; soil temperature ranging +2 – +5°C; air humidity ranging 41–56%; and monthly rainfall of 7.1 mm. Under highly saline environments (ground water salinity of ~ ECiw 10-15 dS/m with high concentration of Na⁺ and Cl⁻ ions; SAR of 4.68-11.12, at the stage of seed bedding) these crops successfully produced viable seeds and ground tubers. The salinity of irrigation water was varied from 0,7-12 dS/m. Evaluated varieties were more water-use efficient, highly tolerant to salt and do not require preparatory salt leaching before planting. These two varieties have a high plant density (67-89th/ha) that makes them useful for cultivation in early spring-summer as animal forage. They can also be included in an inter-cropping system. Densely covering the salt-affected lands, they can also contribute to the soil improvement and moisture holding that should be taken into consideration in crop rotations. The vegetation cycle of tested varieties was of 120-180 days with a maximal height of plant of about 210-290cm. Yields of fresh biomass on sandy saline soils varied from 58.2 to 87.9.t/ha, when yield of tuber was 35, 6-42.0 t/ha. Tuber yield was more sensitive to water and soil salinity than aboveground green biomass.

Furthermore, these cultivars of topinambur could become economically viable alternative for reclamation of un-utilized marginal drylands, reducing the summer fallow practices by increasing the land use ratio that will improve biodiversity and generate alternative flexible options for improved livelihoods of poor farmers and agropastoralists.

Kristina Toderich
ICBA-CAC

B. Bekhchanov

Institute of Karakul Sheep Breeding and Desert Ecology

Control of thrips in cucumber greenhouse using LASTRAW preparation

In cucumber greenhouse located in Kibray district farm of Tashkent region the ecologically pure preparation “Lastraw” was tested against thrips. Test was conducted in winter time in greenhouse cucumber (100 m² of area), where plant was infested with thrips (*Thrips tabaci*). At present, the area under greenhouse cucumber production in Uzbekistan is expanding. This increased production requires effective measures for protecting the crops from pests and diseases. Important insect pests of greenhouse cucumber crop include greenhouse whitefly (*Trealeurodes vaporariorum*) and thrips. The most spread and dangerous pest is *Thrips tabaci* Lindeman. *T. tabaci* is a common and serious pest for many greenhouses and field crops. Thrips damage to cucumber results in both loss of yield and reduction in storage quality of fruit cucumber. Thrips are most damaging during the early fruit development stage. Infested plants may have leaves that are scarred (stippled appearance) and do not elongate properly resulting in twisted or crinkled leaves. In Tashkent region, pest development from the egg



Yield of tuber per one plant of Fayz Baraka variety, grown under saline clay loamy soils at Takhtakupur site



Overview of saline desert field margins with *Helianthus tuberosus* L. at the flowering stage. Irrigation is done by mineralized ground water



Pest number estimation on plant leaves in greenhouse

to adult stages takes about 20-25 days, with 6 to 8 generations per year. Thrips prefer to feed on the newest leaves, usually concealed in the leaf sheaths. As the leaf expands, the damage enlarges. Feeding results in leaves with a whitish or tan appearance.

Lastraw is developed by scientists in Bangalore (India), in bio-control research laboratory as preparation for management of sucking pests. It was received in Tashkent from Indian company to evaluate it in Central Asia as insecticide suppressing the number of pests in agricultural crops. Lastraw is product formulation consisting of organic salts. So Lastraw can be considered as natural bio-preparation and it is not toxic for humans, animals and beneficial insects.

Treatment (spraying) with Lastraw was conducted three times every 10 days and the estimation of pest numbers was conducted every 2 days. The control was untreated area and consisted of 2 rows. Before each treatment Lastraw preparation was dissolved 3 times as 125 ml of preparation in 25 l of water. Experiment was conducted in three replications. The results obtained showed that preparation "Lastraw" is very effective, ecologically pure natural insecticide with bio efficacy study against thrips indicating 85% after the third treatment. That means it significantly suppressed the number of thrips and saved crop from loss of yield.

Barno Tashpulatova
IPM-ICARDA

MEETINGS/CONFERENCES

Stakeholders Meetings

Fifth meetings of National Steering Committees in Uzbekistan (January 29, 2010), Kazakhstan (February 2-3, 2010) and Tajikistan (February 11-12, 2010) were organized within the regional project "In situ/On farm Conservation and Use of Agricultural Biodiversity (Fruit Crops & Wild Fruit Species) in Central Asia" supported by Bioversity International and UNEP-GEF. The main objectives of the meetings were to review the project progress in 2009 in four areas, including policy and legislations issues, assessment of fruit crops diversity level, its distribution and broadening related knowledge, establishment of strong partnership among all stakeholders including policy makers and farmers, capacity building of target groups, and approve the work plan and budgets for 2010.

Muhabbat Turdieva
Bioversity International

Project Inception Meeting

ICARDA organized a project inception meeting on 9-10 March, 2010 in Tashkent to launch a new project titled "Utilization of wild relatives of wheat in developing salinity tolerant winter wheat with improved quality for Central Asia". This new project of 3-yr duration (2010-2012) is being funded by BMZ/GTZ. The overall goal of the project is to improve salinity tolerance and end-use quality of wheat in Central Asia by delivering elite germplasm with improved end-use quality and salinity tolerance. This will accelerate the development of new wheat cultivars for farmers. Salinity tolerant winter wheat germplasm will be developed by ICARDA and tested in Kazakhstan, Uzbekistan and Turkmenistan to identify new varieties. The project also has a component on capacity development through advanced university degrees and short-term specialized trainings in wheat improvement as well as strengthening research laboratory through scientific equipments. The project partners from Kazakhstan, Uzbekistan, ICARDA, University of Bonn and representatives from ZEF participated in the meeting and discussed and decided on implementation of different activities in the project.

Ram Sharma, Zakir Khalikulov
ICARDA



Thrips prefer to feed on the newest cucumber leaves



Participants of the Inception Meeting of the "Utilization of wild relatives of wheat in developing salinity tolerant winter wheat with improved quality for Central Asia" Project

IWMI and SIC organize Annual Stakeholder Meeting along Water Productivity Improvement (WPI) Project

Annual Stakeholder and Project Steering Committee (PSC) meetings were organized on March 25, in Ferghana, Uzbekistan. The participants included SDC representatives, 15 partners in three countries of Ferghana Valley (Tajikistan, Kyrgyzstan and Uzbekistan) and Association specialists. Partners represented the water relevant ministries, research (knowledge generation), information centers (knowledge processing), extension (knowledge dissemination).

WPI project promotes innovation system, which is based on farmers needs. The key task of the project is to sustain partnership amongst different actors (partners) to pass on the knowledge to farmers based on their needs to get higher water productivity. The meeting discussed the key results achieved in 2009. They are following: i) partnerships are established and operational activities, ii) demonstration sites are set up, training and extension activities are carried, iii) first round of innovation cycle is carried out by the partners using the knowledge and farmers' needs identified in Inception phase.

The PSC meeting has approved the progress report for 2009 and yearly plan of operations for 2010 with the following comments: i) project activities should meet the requirements of farmers, especially women farmers; ii) project has to identify and assess constrains for accepting recommendations by farmers; iii) project should fully cover at least one WUA in each country with water flume meters with the purpose of proving the effect of water measuring; iv) enhance effectiveness and efficiency of extension services to the level that farmers can afford to pay (increase the area coverage and number of farmers); v) finalize the extension services strategy agreed by National partners to the next annual stakeholder meeting; vi) project should contribute to public awareness activities amongst farmers to promote payment for irrigation services for volume of water they receive.

Jusipbek Kazbekov
IWMI

The Young Researcher's Seminar 2010 in Montpellier, France

A group of 40 young researchers from 26 countries, amongst them Dr. Kirsten Kienzler from the ICARDA Tashkent office, participated in the Young Researcher's Seminar organized by the French Initiative for International Research in collaboration with the Agropolis Fondation on March 25-28, 2010. The young researchers represented a range of geographic locations and disciplines but all have interests in having impact on global agriculture and are committed to environmentally and socio-economically sustainable development for smallholder farmers.

Hosted by the Agropolis Fondation in Montpellier, the young scientists presented their research and discussed their results with invited senior discussants (e.g. Louise Fortmann, Professor of Natural Resource Sociology, Department of Environmental Science, Policy and Management at the UC Berkley) and junior discussants (e.g. from YPARD, the young professionals in agricultural research for development), and shared their experiences on interdisciplinary research and methods. As an outcome of the seminar, the participants prepared a presentation and short statement for the 'open science' session at the GCARD (March 28-31) summing up the discussion points of the seminar and identifying the needs of action from the perspective of young scientists in the agricultural research world.

The participants also anticipated publishing the outputs of the seminar in the Journal of Agriculture and Human Values to complement the discussions and provide a forum for some of the philosophical issues investigating the relationships between each of the independent research programs of the young scientists.

Kirsten Kienzler
ICARDA



Stakeholder and Project Steering Committee Meetings participants



Young researchers discussing in working groups the needs for action for ARD at the Agropolis Fondation in Montpellier, France

WORKSHOPS/TRAININGS

Training Course on Wheat Genetics in Uzbekistan

ICARDA CAC Regional Program and Kashkadarya Scientific Research Institute (SRI) of Breeding and Seed Production of Cereal Crops jointly organized a “Training Course on Wheat Genetics” on 25-29 January, 2010. In total, 30 researchers from four different research institutions (Kashkadarya SRI, Andijan SRI, Gallalari SRI and Uzbekistan RIPI) of Uzbekistan participated in the training course. The training course included 40 hours of lectures and practical exercises on different topics of genetics (Cell Division, Mendelian Genetics, Probability, Gene Interaction, Genetic Recombination, Quantitative Genetics, Polyploidy and Mutation) at introductory level. The group of trainees included mostly young researchers. This was the first training course on Genetics for all researchers. The trainees and the managers of Kashkadarya SRI were highly appreciative of ICARDA-CAC for organizing this training. Dr. Ram Sharma, ICARDA's Crop Breeder in CAC Regional Program carried out this training.

Ram Sharma
ICARDA

1st CAC Barley Workshop Organized in Tashkent

ICARDA organized the “First CAC Barley Workshop” on 22-25 February 2010 in Tashkent Uzbekistan. The workshop was attended by 38 barley experts from different institutions including ICARDA, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan and Russia. A number of presentations were made that highlighted different topics such as ICARDA's Barley Strategy, status of barley in the CAC, barley improvement and production systems in the region, and industrial need of malting barley in Uzbekistan. The participants discussed at length the constraints to barley improvement and its future activities in the region. The participants also thrashed out priorities for barley improvement in the CAC, which include tolerance to abiotic (drought, salinity and frost) and biotic (diseases and insect pests) stresses, high yield potential, earliness, superior end-use quality, water use efficiency, lodging, genetic resources, crop management, farmers' participation, regional networking and capacity building.

Ram Sharma, Zakir Khalikulov
ICARDA

Regional Training Workshop on “Linking information from Focus Group Discussion, Household Surveys, and Farm and Forest Assessment for Cultivated and Wild Fruit Tree Diversity in Central Asia”

The Regional Training Workshop on “Linking information from Focus Group Discussion, Household Surveys, and Farm and Forest Assessment for Cultivated and Wild Fruit Tree Diversity in Central Asia” was held on 22-25 February, 2010 in Tashkent, Uzbekistan within the Bioversity International/UNEP-GEF project “In Situ/On Farm Conservation of Agricultural Biodiversity (Fruit Crops and Wild Fruit Species) in Central Asia”. Twenty key partners from Kyrgyzstan, Tajikistan, Kazakhstan, Turkmenistan and Uzbekistan participated in the workshop facilitated by Dr. Jarvis Devra, Senior Scientist Agricultural Biodiversity and Ecosystems and Muhabbat Turdieva, Regional Project Coordinator, Bioversity International. The participants discussed how to process and compile landrace descriptors by fruit crop (and among crops); to set up data tables for analysis; to process and compile management practices and relating practices to diversity of fruit crops on-farm and in the wild; to process and compile information on seedling sources (wild and cultivated) and to compare data across crops – coming up with overall “non-crop specific” results.

Muhabbat Turdieva
Bioversity International



Participants of the “Training Course on Wheat Genetics”



“First CAC Barley Workshop”.
Participants' group photo



Participants of the Training Workshop on “Linking information from Focus Group Discussion, Household Surveys, and Farm and Forest Assessment for Cultivated and Wild Fruit Tree Diversity in Central Asia”

Annual Planning Workshop for IWRM-FV Project

The annual planning workshop for Integrated Water Resources Management in the Ferghana Valley (IWRM-Ferghana) project funded by SDC was held on March 3, 2010.

The event was participated by more than 50 people representing three project countries – Kyrgyzstan, Tajikistan and Uzbekistan, as well as SDC (donor), IWMI and Scientific Information Center of the Interstate Commission for Water Coordination in Central Asia (SIC-ICWC) (project implementers).

During the planning workshop, the participants reviewed and discussed the results of the last year and the proposed yearly plan of operations for 2010. The Steering Committees approved the respective Annual Progress Report for 2009 and the Yearly Plan of Operations (YPO) for 2010.

Konstantin Mosin
IWMI

Training Course on Wheat Improvement in Uzbekistan

ICARDA CAC Regional Program and Kashkadarya Scientific Research Institute (SRI) of Breeding and Seed Production of Cereal Crops jointly organized a “Training Course on Wheat Improvement” from 22 to 26 March, 2010. The training had 27 participant researchers from three different research institutions (Kashkadarya SRI, Gallalal SRI and Uzbekistan RIPI) of Uzbekistan. The training course included 40 hours of lectures and practical exercises on different topics on wheat improvement (breeding objectives, breeding tools, techniques and methods, seed production, field plot experimentation, marker assisted selection, participatory varietal selection) at introductory level. The group of trainees included all young researchers. This was the first training course on wheat improvement for 25 of the 27 participants. The trainees and the managers of Kashkadarya SRI were highly appreciative of ICARDA-CAC for organizing this training. Dr. Ram Sharma, ICARDA's Crop Breeder in the CAC Regional Program carried out this training.

Ram Sharma
ICARDA

Regional Workshop on “Access and Benefit Sharing (ABS)”

The Regional Workshop on “Access and Benefit Sharing (ABS)” was organized on 23-25 March, 2010 in Tashkent, Uzbekistan within the Bioversity International/UNEP-GEF project “In Situ/On Farm Conservation of Agricultural Biodiversity (Fruit Crops and Wild Fruit Species) in Central Asia”. Key project partners from Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan participated in the workshop, facilitated by Isabel Lapena, Legal Consultant on Legislation and Policy Aspect, Muhabbat Turdieva, Regional Project Coordinator, Bioversity International and Kamola Kayumova, Assistant to Legal Consultant on Legislation and Policy Aspect. The issues discussed were status of work on development of proposals in countries for improving national legislation for supporting in situ and on farm conservation and farmer's rights and access and sharing benefits produced within the project. The partners were provided with the model tools and guidelines for sharing of benefits in free and restricted access, which should be further tested by them in the field.

Muhabbat Turdieva
Bioversity International

Regional Workshop on “Monitoring and Planning Quality Training 2010”

The Regional Workshop on “Monitoring and Planning Quality Training in 2010” took place on 13-14 April, 2010 in Tashkent, Uzbekistan within the Bioversity International/UNEP-GEF project “In Situ/On Farm Conservation of Agricultural



Participants of the “Training Course on Wheat Improvement”



Participants of the Regional Workshop on “Access and Benefit Sharing (ABS)”

Biodiversity (Fruit Crops and Wild Fruit Species) in Central Asia". National partners from Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan participated in the workshop, facilitated by Per Rudebjer Scientist, Education and Capacity Development Unit, Bioversity International, and Muhabbat Turdieva, Regional Project Coordinator, Bioversity International. Participants reviewed the progress in organizing trainings in 2009 and discussed options to ensure successful implementation of training activities in 2010. They agreed to put in place a quality management system for training by using the guidelines on development of training materials and organizing trainings prepared by Dr. Kubanichbek Turgunbaev, Regional Consultant for Trainings. Participants also discussed ways of sharing the project results for their use by broader audience.

Muhabbat Turdieva
Bioversity International

AWARDS AND RECOGNITIONS

Recognizing Dr. Beltagy's contribution

During GCARD conference in Montpellier all NARS partners from CAC expressed their deep gratitude for Prof. Adel El-Beltagi's efforts to promote agricultural research of NARS partners in CAC by a document signed by all NARS partners. Prof. El-Beltagi was former chair of GCARD. The gesture was highly appreciated by Prof. El-Beltagi and also by the audience. In his speech Acad. Rasulmat Khusanov, Ex-Minister of Agriculture and Water Recourses, Uzbekistan, specifically mentioned: "We, a group of agricultural research stakeholders, would like to express our sincere gratitude for your great contribution and dedication for strengthening agriculture in the region of Central Asia and the Caucasus. Initially as a Director General of the International Center for Agricultural Research in the Dry Areas and then as a Chair of the Global Forum for Agricultural Research for Development you have made a tremendous contribution towards reviving and strengthening the National Agricultural Research Systems of Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. We wish you health, prosperity and all the best returns of the day".



Acad. Rasulmat Khusanov (left) presenting a gift to Dr. Adel El-Beltagi (right)

ANNOUNCEMENT

Scholarship for volunteer of ICBA-CAC

Polish Academy of Science Foundation "Kasa Mianowski" has awarded a scholarship for Mrs. Aralova Dildora, a volunteer of ICBA-CAC, for a period of 4 months at the Landscape Environments Department of University of Warsaw for studies on assessment of contemporary state of Kyzylkum desert vegetation by application of GIS/RS along a salinity gradient.

FUTURE EVENTS

The 13th Steering Committee Meeting of CGIAR Program

The 13th Steering Committee Meeting of CGIAR Program for CAC will take place on June 13-15, 2010, in Ashgabat, Turkmenistan.

Conference for Young Scientists "Conservation and sustainable use of fruit and forest tree species diversity"

National Scientific and Practical Conference for Young Scientists "Conservation and sustainable use of fruit and forest tree species diversity" will be organized on 21 May, 2010 in Tashkent, Uzbekistan by Tashkent Agrarian University and Institute of Genetics and Experimental Plant Biology with support of Bioversity International.

International Scientific and Practical Conference “Conservation and sustainable use of crops and their wild relatives diversity”

International Scientific and Practical Conference “Conservation and sustainable use of crops and their wild relatives diversity” will be organized on 7-8 October 2010 in Tashkent, Uzbekistan, by Institute of Genetics and Experimental Plant Biology with support of Bioversity International.

STAFF CHANGES

New researcher of IWMI Central Asia office

Dr. Kai Wegerich joined IWMI Central Asia office on April 10, 2010 (Researcher Water Policy and Institutions). He obtained his PhD from the School of Oriental and African Studies, University of London, United Kingdom and worked as a researcher for the Zentrum für Entwicklungsforschung (ZEF – Centre for Development Research) in Bonn, Germany, and as a development worker for the Deutscher Entwicklungsdienst (DED – German Development Service) in Khorezm, Uzbekistan. For the past 6 years, Dr. Kai has been working as Assistant Professor at the Irrigation and Water Engineering Group of Wageningen University, Netherlands. Dr. Kai’s research interests include social and political aspects of water management in Central Asia, on which he has published in various journals. He has conducted fieldwork in Uzbekistan, Kazakhstan, Kyrgyzstan and Afghanistan. Dr. Kai co-edited the special edition on ‘Emerging issues on land and water in Central Asia’ in the journal, Irrigation and Drainage Systems (with Jochen Froebrich and Marinus G.Bos) and edited together with Jeroen Warner, a book ‘The Politics of Water’. The colleagues wish Dr. Kai Wegerich all the success in his new position.



Dr. Kai Wegerich

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DISCLAIMER: While every effort has been made to ensure the accuracy of the information, the Program Facilitation Unit (CGIAR-CAC) cannot accept any responsibility for the consequences of the use of this information. The Newsletter provides a brief overview of agricultural research and other activities of the Program during the last quarter .