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CACnews

13th Steering Committee Meeting of the CGIAR Program for Sustainable Agricultural Development in Central Asia and the Caucasus

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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

The International Food Policy Research Institute (IFPRI) has been a collaborating partner of the CGIAR's Program Facilitation Unit (PFU) since its inception in 1998. The overall focus of IFPRI's work in Central Asia has been to identify and confront the extraordinary challenges facing the countries in the region as they transition from being centrally planned economies to market-oriented economies. IFPRI research findings indicate that mountainous areas such as Central Asia are likely to have lower food security and are likely to be especially affected by external shocks such as surges in global food prices. Therefore, the process of achieving food security requires a long-term strategy of not only reforming policies and programs, but also strengthening the capacity of individuals and institutions to reorient their mind sets and approach to planning and policy-making.

In recent years, IFPRI researchers have focused on examining policy issues in the region, especially with regard to the food price crisis of 2008. The reallocation of more land to food crops during the past 20 years improved the food-security situation in Central Asia and helped mitigate the impact of the food price crisis. But changes in international food prices have a significant effect on domestic food prices and the short-term policy responses of national governments, which creates major obstacles for the region's long-term food security. During the recent food crisis, for example, the surge in domestic food-price inflation in Central Asia almost perfectly matched the spike in international food prices. Further improvement of food security in the region will require concerted efforts on the part of governments to remove existing trade and infrastructure barriers and constraints on agricultural productivity.

Currently, IFPRI is planning to launch a stock-taking exercise to analyze the diverse issues affecting the food and nutritional security of Tajikistan in order to highlight the weak links in the chain that must be reinforced. IFPRI has also made an effort to strengthen the capacity of regional institutions working to improve food security. As a first step, a regional workshop held in Bishkek in collaboration with the CGIAR's Program Facilitation Unit helped to inventory the challenges Central Asian countries face in achieving food security. Workshop participants concluded that designing and implementing meaningful polices requires strengthened capacity for monitoring food availability, access to food, and food prices, and analyzing them in country-specific contexts.

IFPRI is keen to collaborate with other CGIAR Centers working in the region so that the collective expertise of the CGIAR can contribute to improving food security in Central Asia.

Shenggen Fan
Director General
IFPRI

Dr. Shenggen Fan
Director General, IFPRI

IMPORTANT EVENTS

13th CGIAR-CAC Steering Committee Meeting

H.E. Deputy Prime Minister of Turkmenistan Mr. Muratgeldy Akmammedov is opening the 13th CGIAR-CAC Steering Committee Meeting

The 13th Steering Committee Meeting (SCM) of the CGIAR Program for Sustainable Agricultural Development in Central Asia and the Caucasus (CAC) was organized in Ashgabat, Turkmenistan, on June 13-15, 2010. The meeting was attended by about 150 participants, comprising of the Focal Points of the National Agricultural Research Systems of Georgia, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, the representatives of the CGIAR and the other International Centers, as well as a large number of scientists and policymakers from Turkmenistan.

The purpose of the 13th SCM was to summarize the CGIAR activities and results in the CAC countries in 2009-2010, and discuss the research directions for the next year and future collaboration within the CAC program.

The Meeting was opened by Deputy Prime Minister of Turkmenistan Mr. Muratgeldy Akmammedov. He has read out the Solemn Address of H.E. the President of Turkmenistan, Mr. Gurbanguly Berdymuhammedov, to the participants of the SCM. H.E. the President of Turkmenistan welcomed the participants of the meeting in Turkmenistan and wished a success to the meeting. Following this, Dr. Mahmoud Solh, Director General, ICARDA, expressed his thanks to H.E. the President of Turkmenistan and the Government of Turkmenistan for hosting the 13th SCM of the CGIAR-CAC Program and highlighted the great progress being made in Turkmenistan in terms of agricultural research development. On behalf of CIMMYT, Dr. Hans Braun gave the opening speech and pointed out the increasing importance of mobilizing efforts to fight the diseases in cereal production, particularly rusts in the region. Dr. Mahmoud Solh in his presentation talked about the ongoing process and goals of transforming the CGIAR and the implications of the CGIAR reform for the CAC region. He informed that the Integrated Reform Proposal includes new legally-structured Consortium of CGIAR Centers, a Common Fund managed by donors and partners, and an Independent Science and Partnership Council (ISPC). The CG-Centers will create a Consortium as a legal entity with a Consortium Board and an Executive Director (CEO). The Strategy will be implemented through a portfolio of Mega-Programs which are currently developed by the Centers. Donors are encouraged to channel their funding through the newly created Common Fund; some donors may continue bilateral funding. He stressed the fact that CGIAR is a strategic partnership always acting at the forefront of agricultural research and this reform will give the CGIAR more focus with clearer vision and strategic directions. The reform has implications for the CAC region as to that the funding for CGIAR System-wide Programs will be discontinued, but the new structure of the mega programs may focus on regional dimensions. The importance of the agro-ecological approach in MPs is emphasized. Therefore, stronger partnerships with national programs will be critical and co-financing and full cost recovery must be considered. Membership may have to be considered to cover the cost of PFU.

Dr. Mahmoud Solh, Director General, ICARDA, is highlighting the progress being made in Turkmenistan

Dr. Zakir Khalikulov, Acting Head, PFU, CGIAR-CAC presented the Annual Report of the PFU to the SCM. In his presentation Dr. Zakir Khalikulov briefly summarized the activities of the Program during 2009-2010.

During the meeting there were NARS presentations and discussion about country status reports on research in collaboration with the CG Centers in Central Asia and the Caucasus.

Prof. Asad Musaev, Director General, Agrarian Scientific Center, Azerbaijan, made a presentation on the collaborative activities of the CGIAR CAC

Group photo of the 13th CGIAR-CAC Steering Committee Meeting.
13-15 June, 2010.
Ashgabat, Turkmenistan

program in Azerbaijan. He mentioned that during the last years, the cooperation between such Centers as CIMMYT and ICARDA was enhanced. As a result of cooperation with CAC Program, the national genebank of Azerbaijan has been made functional. Presently, more than 5,500 samples of cereal and legume crops are stored there. The national network on PGR by now consists of 14 national research institutes. Germplasm enhancement remains a key area of cooperation with ICARDA.

Dr. Levon Minasyan, Head, Department of Science, education and extension, Armenia, made a presentation on the collaborative activities of the CGIAR CAC program in Armenia.

The presentation of the NARS partners from Georgia highlighted the main activities of the Program in Georgia such as germplasm enhancement, PGR conservation and use, potato research, and capacity building. From Tajikistan Acad. Hukmatullo Ahmadov, President, Tajik Academy of Agricultural Sciences made a presentation on the collaborative activities of the CGIAR CAC program in his country and presented detailed information on CGIAR Centers research activities in Tajikistan in such fields as PGR conservation, germlasm enhancement, introduction of bio-saline agricultural practices in the country, activities on IPM and work with CIP on potato in the Rasht valley. Also, he highlighted the activities on developing water and soil management technologies have been successfully conducted together with ICARDA under the CACILM framework.

From Kazakhstan, Dr. Serik Kenenbaev, President, KazAgroInnovations presented the report on active collaboration with CG Centers on germplasm enhancement, crop production, PGR and irrigated agriculture. Also, he mentioned about the research on raised bed planting which had led to the creation of a prototype of a raised bed planter adapted to the conditions and informed about the on-going reforms in the agricultural sector in Kazakhstan.

Acad. Djamin Akimaliev, General Director, Kyrgyz Research Institute of Agriculture made a presentation on the collaborative activities of the CGIAR

Dr. Zakir Khalikulov, Acting Head, PFU, CGIAR-CAC is presenting the Annual Report of the PFU to the SCM

CAC program in Kyrgyzstan which is focused on germplasm enhancement of wheat, barley and legume crops and vegetables as well as PGR. Acad. Djamin Akimaliev mentioned that as the result of collaboration with Bioversity International, the national PGR strategy was updated and several related publications were produced. The activities on livestock management together with ICARDA are contributing to the improvement of the livelihoods of rural livestock producers, especially in the remote areas. The activities under the SLMR project have led to the introduction of several promising land management technologies, such as laser land leveling.

Dr. Bahtiyor Kamilov from Uzbek Scientific production Center of Africulture, Uzbekistan in his presentation mentioned about the importance of fighting against rusts in Uzbekistan. He highlighted the research activities conducted by IWMI in Uzbekistan, notably on IWRM and especially mentioned about the successful activities of AVRDC in Uzbekistan, which has led to the release of 6 new varieties of mungbean, sweet and hot pepper. Dr. Kamilov also expressed the satisfaction with the collaborative activities together with Bioversity International, CIP and ICBA.

From Turkmenistan, Dr. Geldy Goshaev, Director, Institute of Crop Husbandry, made a presentation on the collaborative activities of the CGIAR CAC program in Turkmenistan where he had mentioned the current status of agricultural development in Turkmenistan and its priority areas, informed about activity of CG Centers. He expressed his conviction that these successful collaborative activities would be further continued.

After the NARS partners' presentations there were the overall discussion where the several issues where raised, such as vital difference between nutritional and food security, capacity building of young scientists, omission in agrarian policy and other vital problems existing in the region. Also, Heads of CGIAR Centers made presentations and discussed agricultural research in collaboration with the NARS partners in Central Asia and the Caucasus.

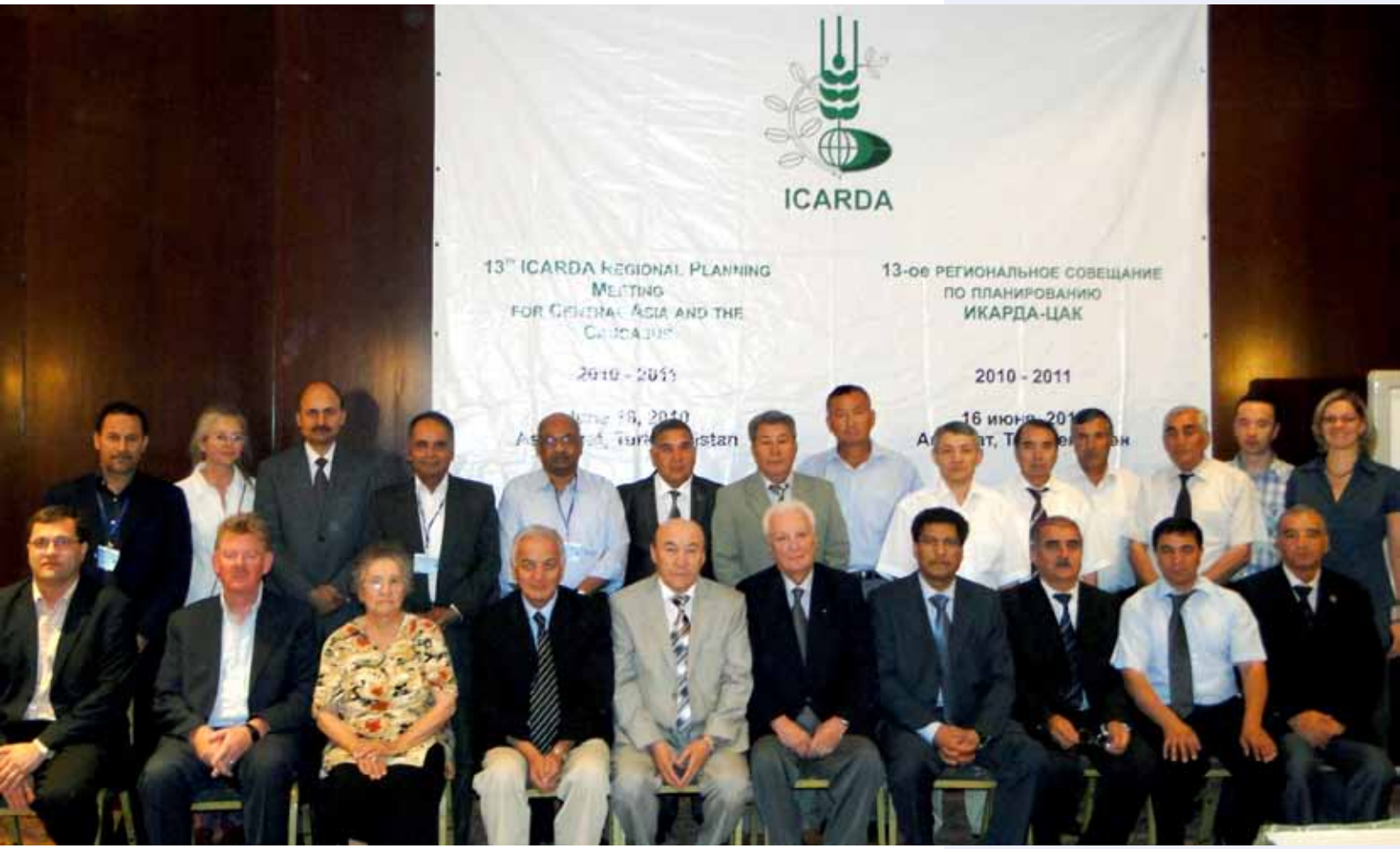
Meeting participants are looking for the presented publications by CG Centers of the CAC Region

Dr. Ram Sharma presented ICARDA activities in the CAC region with focus on the three ongoing projects. Dr. Hans Braun and Dr. Murat Karabayev presented CIMMYT activities. Dr. Mohan Junna presented IWMI activities. He pointed out the critical issue that if water management practices don't change, water needs for agriculture will double. Bioversity International activities was presented by Dr. Jozef Turok. Dr. Carlo Carli presented CIP activities on Potato virus and viroids distribution in different agro-ecological conditions of Uzbekistan. Dr. Ravza Mavlyanova presented AVRDC activities and the main priority vegetable crops in Central Asia. Dr. Kristina Toderich presented ICBA activities and good performance and accumulation of green biomass under highly saline environments.

During the overall discussion of all presentations, questions were raised related to the status of the uptake and adoption of the research outputs that are produced in the CAC region as it is still not clear how much was it taken up. There is the need to conduct a formal impact assessment study. Also, it needs to be looked at how strong the interactions among collaborators is, and what are the opportunities for working together. In this respect, particularly the issue was discussed of whether increasing the uptake via NGOs is a valid way, and it was pointed out that if there are no governmental extension services CGIAR research will not achieve its goals. The Ferghana Valley project of IWMI has done some assessment of the project impact, and part of the documentation is available. Nevertheless, the lack of extension services in each of the countries is a real constraint for the distribution of knowledge, so NGOs are the means of distribution/dissemination. Also, it was noted that adoption strategies and impact are different for different technologies, e.g. what is applicable for

water or land management is different from where improved seeds are used. There is still the need to change not only the extension system only but also the varietal testing, seed multiplication and release system. In some countries, there is a financial bottleneck for adopting the new varieties. During the meeting, Mahmoud Solh, ICARDA DG, met the Turkmen Minister of Agriculture and other high officials and they all showed commitment on strengthening collaboration. The issue is how the CG Centers can quantify the impact of the work as the external review recommended to measure the impact of the research from various projects.

13th ICARDA-CAC Regional Program Planning Meeting



Group photo of the 13th ICARDA Regional Planning Meeting.
16 June, 2010.
Ashgabat, Turkmenistan

The 13th Regional Planning Meeting (RPM) of the ICARDA Program for Central Asia and the Caucasus (CAC) was organized in the Hotel Ak Altyn in Ashgabat, Turkmenistan, on June 16, 2010, which was attended by around 30 participants. The participants comprised the heads of the National Agricultural Research Systems of Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, the DDG of Research and representatives of the CGIAR and the other International Centers, and representatives of donor agencies. Also, many scientists from several research institutions working in the region participated. In particular, there was an active participation of a number of scientists from Turkmenistan.

The purpose of the 13th RPM was to summarize the ICARDA-CAC activities and results in the CAC countries and discuss the research directions for the years 2011 and 2012 in collaboration with the NARS partners. The agenda of the 13th RPM provided for presentations and discussions of the agricultural research activities by the respective ICARDA departments, results and conclusions of recent projects and activities in the CAC countries, and discussion of the future ICARDA activities and research needs in the CAC region.

During the meeting, several vital issues related to agricultural research and food security existing in CAC were raised and discussed. Discussion groups along the research questions of crop improvement/genetic resources/IPM, natural resource management/system diversification/ livestock and rangeland, and socio-economic and policy research were formed to discuss plans of current projects for the next years, identify capacity development needs, research priorities and possible financing and resource mobilization plans. It was agreed that the focal points of the working group should contact the relevant scientists at ICARDA HQ and circulate the results of the discussion groups to get more information, also in order to avoid duplication with other ongoing projects.

CACAARI Meetings in Ashgabat

The 2nd Meeting of the CNGO and CFO, as well as Annual Meeting of CACAARI was held on 10-11 June, 2010 in Ashgabat, Turkmenistan

Central Asia and the Caucasus Association of Agricultural Research Institutions (CACAARI) organized the 2nd Meeting of the Consortium of Non-government organizations (CNGO) and the 2nd Meting of the Consortium of Farmer Organizations (CFO) as well as Annual Meeting of the CACAARI Steering Committee which on 10-11 June 2010 in Ashgabat, Turkmenistan. During the meetings various issues were discussed among stakeholders represented by all CAC countries and a few international institutions. The deliberations included approval of CNGO and CFO Charters as well as CACAARI Constitution, participation of CACAARI in GCARD-2010 Process and its follow up, further activities by CACAARI and other issues related to strengthening of CNGO, CFO and CACAARI. For instance, during voting for a new Chairman of CACAARI, all Steering Committee members unanimously selected Acad. Djamin Akimaliev from Kyrgyzstan who will start his tenure from 1 October 2010. Besides, in order to appoint new Executive Secretary of CACAARI, a draft TOR was revised by the audience. After discussions on the text of the TOR, it was approved by the Steering Committee.

Alisher Ergashev
CACAARI

Visit of Dr. Mahmoud Solh, ICARDA Director General to Azerbaijan

From left to right: Dr. Z. Khalikulov, Acting Head of PFU-CGIAR in Uzbekistan, Dr. A. Musaev, DG, Agrarian Center of Azerbaijan, Acad. J. Aliev, National wheat coordinator of Azerbaijan, Crop Husbandry Institute, Azerbaijan, Dr. M. Solh, DG of ICARDA

Dr. M. Solh, Director General, ICARDA visited Azerbaijan on 19 – 24 June, 2010 to participate in the 35th Annual Meeting of the Islamic Development Bank (IDB).

During the Meeting Dr. M. Solh has met with the President of the Islamic Development Bank, President of IFAD and Ministers from several member countries of IDB.

On 23 June, 2010 during the Ministerial meeting on the subject of Achieving Food Security in Member Countries in Post-crisis period, Dr. M. Solh made a presentation on Food Security, which was highly appreciated by all participants. He emphasized that to achieve food security the four main dimensions must be considered: food availability, food access and utilization, and stability.

Besides his participation in the IDB Annual Meeting, Dr. M. Solh also availed the opportunity of meeting with Ministers and representatives from the host country Azerbaijan and other countries. Dr. Z. Khalikulov, Acting Head of PFU-CGIAR in Uzbekistan has accompanied Dr. M. Solh during his official visits in Azerbaijan.

On 21 June, 2010 Dr. M. Solh had a meeting with the Deputy Minister of Agriculture of Azerbaijan Dr. B. Aliev, and Director General of Azerbaijan Agrarian Center Dr. A. Musaev. During the conversation, the Deputy Minis-

ter greatly appreciated ICARDA's role and activities in the region, especially in capacity building and technology transfer. He emphasized that ICARDA acts as the school for the scientists of this region and serves as a bridge between the region of Central Asia and South Caucasus and the world community at large. Dr. B. Aliev requested Dr. M. Solh to strengthen the cooperation with Azerbaijan and promised to provide possible assistance from the Ministry of Agriculture. Dr. B. Aliev expressed his hope that the five project concept notes on: 1) Strengthening Regional Seed Supply, 2) Establishment of Operational National and Regional Genebanks and Network for Coordinated Efforts for Efficient Conservation and Sustainable Use of Plant Genetic Resources, 3) Participatory Management of Rangelands to Improve Food Security and Sustain the Natural Resource Base in Central Asia, 4) Integrated Pest Management of Sunn pest in West and Central Asia, and 5) Enhancement of Productivity and Production Sustainability of Bread Wheat Cropping Systems in Economic Cooperation Organization (ECO) countries will soon be funded by potential donors.

Dr. M. Solh has invited Mr. I. Abbasov, Minister of Agriculture and Dr. B. Aliev, the Deputy Minister of Agriculture of Azerbaijan to visit ICARDA Headquarters in Aleppo at the beginning of May 2011 for "ICARDA Day". The invitation was accepted.

Also, Dr. M. Solh had visited the Scientific Research Institute of Crop Husbandry and Institute of Genetic Resources of Azerbaijan. During the visit to the nurseries of Crop Husbandry Institute Dr. M. Solh discussed the ways of strengthening cooperation with Dr. J. Talai, Director of the Institute of Crop Husbandry, Acad. J. Aliev, National Coordinator on wheat, and Dr. A. Musaev, General Director of Azerbaijan Agrarian Center.

At the Institute of Genetics Dr. M. Solh had a meeting with Dr. Z. Akparov, Director and staff members which were trained at ICARDA. During the discussion they showed keen interest to start collaboration on the development of salt tolerant crop varieties.

The other important event during Dr. M. Solh's participation at the Meeting of Islamic Development Bank in Azerbaijan was his meeting with H.E. Mr. E. Ganiev, Deputy Prime Minister, Minister of External Economic Relations, Investments and Trade of Uzbekistan. During the official conversation, Dr. M. Solh thanked the Government of Uzbekistan for hosting the Regional Office of ICARDA in Tashkent. H.E. Mr. E. Ganiev also appreciated ICARDA's activities in Uzbekistan.

Dr. M. Solh, D G of ICARDA (left) and H.E. Mr. E. Ganiev, Deputy Prime Minister, Minister of External Economic Relations, Investments and Trade of Uzbekistan (right) at the IDB Annual Meeting in Baku, Azerbaijan

Project on Integrated Pest Management (IPM) in function

Professor Karim Maredia, Senior Project Manager ICARDA - IPM, Director of the International Agricultural Institute at the State University of Michigan, USA visited Uzbekistan in June 7-8, 2010. In Kibray district of Tashkent region, he was acquainted with greenhouses of successful farmers' farm, where farmers grow vegetable crops, keeping ecologically clean plant protection technology, i.e. applying chemical pesticides only as needed and used, mostly, microbiological fertilizers and preparations. In the course of the visit, he was impressed learning that large areas of fields and greenhouses belonged to young, not older than 40 years, farmers and their high consciousness and labour-saving approach of improving soil fertility. Prof. Karim Maredia highly appreciated farmers' work, and expressed hope for further collaboration with them in the area biological methods of tomato protection from pests, diseases and weeds developed by the project.

Prof. Karim Maredia met with Dr. Zakir Khalikulov, Acting Head, ICARDA-PFU and Acting CAC Regional Coordinator. During the discussion, Dr.

Meeting in Tashkent State Agrarian University

Prof. Karim Maredia visited greenhouse farmer's farm in Kibray district of Tashkent region

Maredia expressed his appreciation and gratitude for collaboration and assistance of ICARDA in realization of this project. They discussed plans for further work. Prof. Maredia also visited Tashkent State Agrarian University, where he met with the rector and the staff. During the meeting they discussed possible plans for collaboration on the project and capacity building for development sustainable system of agriculture in the country. In the University, Karim Maredia was acquainted with biological laboratory, where useful insects are breeding, including introduced parasite (entomophagous) – a predatory mite ambliseyus. Also, he visited training and experimental farm of the University, where experimental field plots and greenhouses for experiments on cultivation of various crops are situated. Experiments on protection of tomatoes in greenhouses from harmful insects (whitefly, aphis and thrips) were carried out in this training farm by using predatory mite ambliseyus. Also, experiments on grafting of tomato on resistant to complex diseases of rootstocks were carried out in the greenhouse, with the aim of growing high-quality seedling of tomato promising varieties in the open and protected ground. Specialists on plant protection from the institutes were invited to the meeting, where they discussed issues on project tasks implementation for development of environmentally safe methods of protection tomatoes from pests, diseases and weeds. Prof. Maredia expressed his wishes for further research on the project program.

Barno Tashpulatova, IPM
Ravza Mavlyanova, AVRDC

Utilization of Marginal Quality Water in Agriculture: Potential and Constraints with Special Reference to Central Asia and Caucasus

Prof. Faisal Taha (first from right), Director Technical Programs, ICBA summarized the key achievements and role of ICBA activities for improved livelihood of rural poor in Middle East, Central Asia, Northern and Western Africa

The 35th Annual Meeting of the Islamic Development Bank (IDB) was held in Baku, Azerbaijan, from June 20-24, 2010. During this meeting the International Center for Biosaline Agriculture (ICBA) jointly conducted a seminar on "Utilization of marginal quality water in agriculture: potential and constraints with special reference to Central Asia and Caucasus". The seminar was organized in collaboration with the Ministry of Agriculture of the Republic of Azerbaijan. In his speech, Dr Ahmed Al-Masoum, Deputy Director General, ICBA emphasized new integrated program for the conservation and rational use of water resources developed by ICBA in order to support water-scarce countries to improve the land's productivity, social equity and environmental sustainability. He also underlined that the Center's mandate is to help these countries to improve water use through an integrated water resource systems approach, with special emphasis on the effective use of marginal quality water. The Center's operations cover the Middle East, North Africa, West and Central Asia. The main problem of irrigated agriculture, as noted in his welcoming speech by Dr Asad Musaev, General Director of Agrarian Center, at the Ministry of Agriculture of the Republic of Azerbaijan, is the increase of soil salinity, which can and should be seriously considered through the use of modern reclamation and irrigation management practices. One alternative approach of water resources would be the utilization of drainage water, which is a forced measure, as this water is highly mineralized and its mis-management can seriously affect crop growth. However, conjunctive use of 'drainage water and fresh water' can improve the crop yield and prevent soil re-salinization or secondary (human caused) salinization. Drainage water according to the opinion of Dr Mustafa Mustafaev, Research Institute of Soil Sciences and Agrochemistry, National Academy of Sciences Azerbaijan can also be used for animal husbandry and aquaculture purposes. The additional direction of research

for combating soil salinization as has been mentioned in the presentation of Prof Valida Alizade, Director of the Institute of Botany, Academy of Sciences of Azerbaijan, could be the introduction and utilization of native and introduced halophytic flora, which will become an effective and alternative fodder production under harsh desert climate.

A shallow water table can also induce soil salinization. The regulation of water table fluctuations can be achieved through the control of irrigation management practices or by the establishment of artificial agrophytocenosis of aboriginal or introduced halophytic trees/shrubs in pure plantations and/or intercropped with salt/and drought tolerant annual and perennial fodder grass and legumes. The benefits of implementation of this low cost technology by utilization of low quality water for irrigation for increasing productivity of marginal lands and development of crop/livestock production was presented by Dr. Kristina Toderich, regional representative of ICBA for Central Asia and Caucasus.

In conclusion of the seminar, Prof. Faisal Taha, Director Technical Programs, ICBA summarized the key achievements and role of ICBA activities for improved livelihood of rural poor in Middle East, Central Asia, Northern and Western Africa. He also underlined that several biosaline agriculture projects being carried out in these countries and its lessons could be transferred to Central Asia and Azerbaijan saline environments. Field survey, organized by Agrarian Center, Ministry of Agriculture of Azerbaijan along Caspian Sea coastal areas clearly showed the potential of introduction of biosaline technologies including utilization of low quality water to increase productivity of degraded salt affected lands.

All the participants expressed the necessity of close collaboration and development of new projects in biosaline agriculture, horticulture, arid forage production and animal husbandry including the transfer of innovative biosaline technologies, knowledge sharing and capacity building. Islamic Development Bank representatives showed great interest to develop such activities in Central Asia and Caucasus.

Kristina Toderich, Faisal Taha, Ahmed Almasoum
ICBA

Strengthening partnerships with Turkmenistan

The 13th Steering Committee Meeting of the CGIAR Program for Central Asia and the Caucasus (CAC) and ICARDA's Regional Planning Meetings were organized in Ashgabat, Turkmenistan, on 13-16 June, 2010. During these events, Dr. M. Solh, Director General, ICARDA, also met with high-level policymakers in Turkmenistan, H.E. the Minister of Agriculture of Turkmenistan Mr. O. Gurbannazarov and the President of the Academy of Sciences, Turkmenistan Dr. G. Mezilov.

During the meeting with the Minister of Agriculture Dr. M. Solh briefly informed him about the activities of CGIAR Program in the CAC Region and particularly in Turkmenistan. He mentioned about the recently started Project "Exploration of synthetic wheat for developing salinity tolerant, improved quality winter wheat for Central Asia". Dr. M. Solh also highlighted the importance of trainings and participation of Turkmen scientists in the regional meetings.

H.E. Mr. O. Gurbannazarov, Minister of Agriculture of Turkmenistan, appreciated very much the activities of ICARDA and other CG Centers in Turkmenistan. The Minister of Agriculture also informed that the Turkmen Government established a new lake "Altyn Asyr" formed of drainage waters and kindly requested ICARDA and other CG Centers for assistance in the development of crop and livestock production around the lake. The Minister also indicated that the salinity is a critical problem for Turkmeni-

Meeting with the Minister of Agriculture of Turkmenistan:
Left to right: Dr. Z. Khalikulov, Acting Head of PFU-CGIAR, Dr. K. Shideed, Deputy DG, ICARDA, Dr. M. Solh, D G, ICARDA, H.E. Mr. O. Gurbannazarov, Minister of Agriculture, Turkmenistan, Mr. M. Ataev, Deputy Minister of Agriculture, Turkmenistan, Dr. A. Annaev, Director, Grain Institute of Turkmenistan, and Dr. G. Goshayev, Director, Crop Husbandry Institute of Turkmenistan

Dr. M. Solh, Director General, ICARDA (left) and Mr. O. Gurbannazarov, Minister of Agriculture of Turkmenistan (right)

Meeting between Dr. M. Solh, Director General, ICARDA, with Dr. G. Mezilov, President of the Academy of Sciences, Turkmenistan

Workshop participants on the variety trial plot of vegetable crops

stan and the Ministry of Agriculture of Turkmenistan will appreciate assistance in research activities directed on salinity control. The other area of research, where the Turkmen partners see a potential for cooperation, i.e. in the area of more efficient water use for irrigation, breeding of cereals and legumes crops, improving of small ruminants, diversification of agricultural crops (including horticulture and greenhouse), post-harvest technology, process of releasing varieties, and training.

Dr. M. Solh invited the Minister of Agriculture to visit ICARDA Head Quarters in Aleppo, Syria for "ICARDA Day" during early May to see the new technologies available at ICARDA. Dr. M. Solh mentioned that "ICARDA Day" is organized by ICARDA for informing high-level policy makers about the research results and activities of ICARDA.

During the meeting Dr. G. Mezilov, President of the Academy of Sciences of Turkmenistan, informed Dr. M. Solh about the activities of the Academy. He said that, the Academy can collaborate with ICARDA in several areas such as plant genetic resources, trainings (including degree trainings), and on issues related to salinity control.

Dr. M. Solh concurred with Dr. G. Mezilov on mentioned priority areas for further cooperation in Turkmenistan and briefed about ICARDA's activities on PGR in Turkmenistan. He also mentioned that several scientists from Turkmenistan have been trained at ICARDA Headquarters, at ICARDA Regional Office in Tashkent and other countries. Dr. M. Solh also informed about the new project on "Utilization of wild relatives of wheat in developing salinity tolerant winter wheat with improved quality for Central Asia" funded by GTZ/BMZ. Both sides agreed to prepare a MOU between ICARDA and the Academy of Sciences of Turkmenistan on cooperation in agricultural research.

Dr. G. Mezilov was also invited by Dr. M. Solh to attend the "ICARDA Day".

Collaboration between World Vegetable Center and Turkmen Research Institute of Crop Husbandry

The Turkmen Research Institute of Crop Husbandry collaborates with AVRDC - The World Vegetable Center on the project of Regional variety trials of vegetable crops.

During the 13th Steering Committee Meeting of CGIAR Program for Central Asia and Southern Caucasus in Ashgabat, Turkmenistan, participants visited the experimental fields and acquainted with the work of scientists of the Institute. In 2010, variety trials of 5 lines of sweet pepper, 4 lines of hot pepper, and 13 lines of cucumber are being conducted there, as well as the competitive variety testing and seed multiplication of promising varieties of vegetable crops, revealed in previous years on a complex of commercially valuable features. A new variety of cucumber, characterized by high yield, resistance to disease and good taste, is being planned to submit to the state variety trial by scientists of the institute.

Geldi Goshaev
Turkmen Research Institute of Crop Husbandry
Ravza Mavlyanova
AVRDC

Workshop on "Wheat production technologies for farmers to face climate change challenges"

From April 26-30, 2010, a workshop was held in Tunisia on "Wheat production technologies for farmers to face climate change challenges". During this workshop, Dr. Kirsten Kienzler from the ICARDA Tashkent office presented ICARDA's conservation agriculture activities in Central Asia and

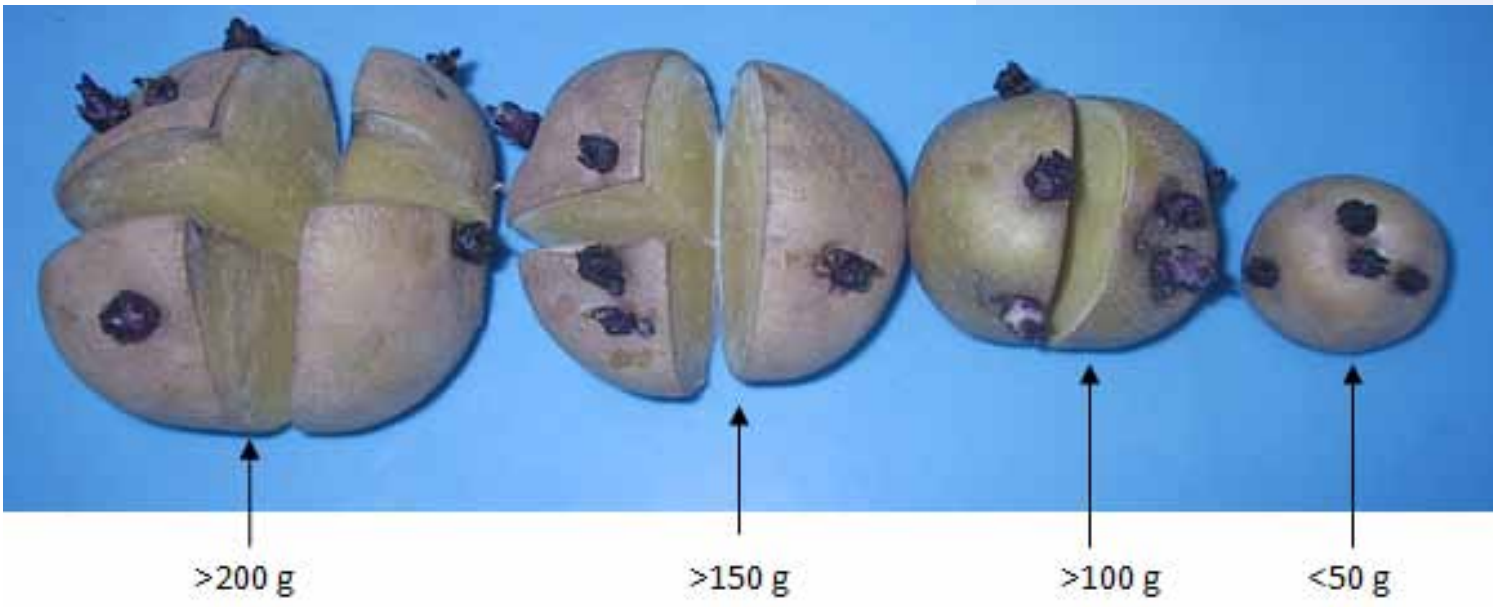
discussed with CIMMYT representatives and Tunisian, Algerian, Moroccan and French researchers the potential and constraints of conservation agriculture in the Maghreb region in comparison to Central Asia and future research and development needs for both regions. Following the workshop, the participants visited several experimental and farmers' field sites under conservation agriculture in three different agro-ecological zones of Tunisia. During the field study tour, wheat diseases occurring under conservation agriculture as well as under the conventional cropping system in Tunisia were discussed and fields with Septoria and other diseases were visited.

Kirsten Kienzler
ICARDA

ICARDA and CIMMYT scientists discussing with a Tunisian farmer the profitability of conservation agriculture and the comparative advantage of leaving residue as opposed to grazing practices

RESEARCH HIGHLIGHTS

Cutting potato tuber seed is a bad practice



Pic.1. Tubers can be cutted according to the size as it is shown in the picture above, but taking the precaution of dipping the knife in a solution of chlorine (10%) and water, every time of cutting a different tuber. If this practice can be done at research level, it is very difficult to diffuse among farmers, therefore, it is strongly advised farmers not to cut seed tubers. In fact, the disinfection of knife every time a new seed tuber is cutting prevents the diffusion of contact viruses (PVX, PVS), viroids (PSTV), and bacteria like Erwinia spp, also called blackleg or "chorna noska" in Russian, and Clavibacter michiganensis subsp. Sepedonicus, also called ring rot. After cutting the seed tubers without using the above precautions, there is a risk to have the transmission of the above diseases with the result that tubers at harvest become smaller and smaller (Pic. 2) and their size deformed (Pic. 3)

More than 25 known viruses affect the potato crop, apart from the so-called viroids which differ from viruses only because they lack of a protein coat, as the potato viruses have. PLRV and PVY are the most widespread potato viruses and are responsible for significant crop losses that can be as high as 60-80%, while mild viruses like potato viruses X, A and M (PVX, PVA, and PVM) can reduce the yield by no more than 10-30% in infected plants. Virus diseases can often be diagnosed by mild or severe mosaic patterns on leaves, stunting of the plant, leaf malformations, and tuber malformations.

In Uzbekistan, particularly in the lowlands and foothills, virus pressure is very high due to the intensive cultivation of cotton, tobacco and other Solanaceae species (tomato, aubergine, pepper), and fruit trees of the *Prunus sp*. such as apricot, peach, cherry, almond and plum. All of them are hosts of aphids like Myzus persicae, or green peach aphid, the most dangerous virus vector among aphids colonizing potato crops. Therefore, when potato is cultivated in the lowlands and at mid-elevation its yield capacity declines dramatically if seed is carried from one generation to another without renewing it regularly with highland potato seed sources. Potato viruses are mainly transmitted by aphids and mechanically (by contact), while potato viroids are essentially transmitted mechanically.

The survey carried out by a team composed by CIP staff, one virologist and two assistants of the Institute of Genetics and Plant Experimental

Pic.2. Smaller size of the harvested tubers after a few years of continuous cutting of seed tubers at planting without previous disinfection of knife

Pic.3. Potato spindle tuber viroid (PSTV) gets its name from the oblong shape of the tubers produced from infected plants (in the picture, on the right, while the normal tuber is on the left)

Biology, Tashkent, in the districts of Qibray, Parkent, Tashkent and Zangi-Ata, in Tashkent region, and Taylak, Samarkand, Bulungur and Jomboy, in Samarkand region in 2007-2009, showed that contact-transmitted viruses and viroids were present in the monitored potato fields. Among the mechanically-transmitted viruses, PVS was the most important being present in more than 60 and 25 percent of the samples collected in Tashkent and Samarkand regions in 2007, respectively. PSTV was also detected in both regions in 11 out of 600 samples and its presence, together with that of PVS and PVX, means that potato growers use to cut seed tubers before planting. This is a bad practice that must be stopped because it is at the origin of the diffusion of PSTV and mechanically-transmitted potato viruses in many parts of the world. PSTV is in the first place of the top list of quarantine pathogens worldwide and is becoming more and more "common" in the world because it has been recently found infecting ornamentals. It is also dangerous for tomato. The disease can spread very quickly and, therefore, we advice local phitosanitary services and Ministries of Agriculture of CAC countries to give the necessary consideration to it.

To improve the situation, CIP proposes to introduce farmer-participatory approaches to bring awareness about potato virus diseases among farmers and build local capacities in virus detection and diagnostics. Strategies for virus disease control must focus on preventive measures such as the use of resistant varieties, field isolation, planting seed in remote areas in the highlands (>1,800 m asl), the control of insect vectors, early haulm killing in seed production and the detection and elimination of contaminated plants and seed (Integrated Disease Management). But be aware that the control of insect vectors is not always an efficient way to prevent virus spread in potato because this would prevent viruses like PLRV, but not PVY.

Carlo Carli
CIP

Wheat plant showing damage by multiple diseases (left) and cereal leaf beetle (right)

Multiple diseases and insect pest problem to wheat crop in Tajikistan

Wheat crop in Tajikistan in 2010 spring months (April-May) faced multiple diseases – yellow rust, leaf rust, Septoria tritici blotch and tan spot. Some of the varieties that were resistant to yellow rust and leaf rust got hit by cereal leaf beetle causing up to 90% loss of green colour on foliage including flag leaves. Since the crops were i n late milk to early dough stages, considerable damages could be expected from these diseases and insect pests.

Ram Sharma, Zakir Khalikulov
ICARDA

Biological control of crop pests in Uzbekistan

One of the important biological control measures in Uzbekistan in cotton crop against leaf chewing and other pests is the use of beneficial insects. They are annually applied on cotton field with consideration of plant growth stage, time of pests' appearance and developmental phenology. In many cases, beneficial insects (*Trichogramma pintoi, Bracon hebetor and Chrysopa carnea*) that are mass reared in biolaboratories can be released on the field together or without other plant protection components before or after appearance of Noctuidae family pests, aphids and spider mites. Biological control regulates seasonable pest numbers and provides an ecological balance in agro system. *Parasitoids Trichogramma pintoi, Bracon hebetor* and predator lacewing *Chrysopa carnea* are used on cotton in conjunction with their rates and parameters elaborated in Uzbekistan Research Plant Protection Institute and Agrarian Universities. There are about 1000

biolaboratories in the Republic regions and districts (some of them located near of cotton field) to mass produce beneficial insects (entomophagoes) to control pests of Noctuidae family and others on cotton field.

Trichogramma is released in pupa stage as infested by it grain moth eggs at different use rate per hectare depending on the level of pest threshold. For example, it is estimated that in case of pest threshold of 20-25 cotton bollworm's (*Heliothis armigera*) eggs per 100 plants, 60,000 of trichogramma pupas should be released per hectare assuming 50% of parasitoids wasp appearance from pupas.

Bracon and *lacewing* effectiveness depends on several factors, including what crop borders cotton. Thus, if bracon and lacewing are released in a tomato field surrounded by cotton, the parasitoid remains on tomatoes, because of better attractiveness by vegetable crop than other crop and biological control of bollworm on cotton will be effective. If vineyard, maize, corn or orchard trees verge on cotton field beneficial insects should be applied on the cotton crop directly. In Uzbekistan, the main ecologically important crop is alfalfa which is cultivated in rotation with cotton crop or near other different crops. The alfalfa crop creates the mild conditions for development of many entomophagoes especially aphidophagoes (*Chrysopidae, Coccinelidae, Syrphidae, Chamaemyodae, Aphididae*). These factors must be taken into account when Bracon and Chrysopa are released. To get 15-20% of parasitizing effect by bracon on Heliothis armigera larvae there must be 800 parasitoids released per hectare on the field. The rate is higher (1000 parasitoids) for the parasitoids from larvae occur in a small quantity and only 8-12% of larvae will be parasitized. So the knowledge of optimal bracon use rate is necessary. The possession of information about quality of biolaboratories production output is also required because parasitoids and predators being mass reared on the same host and prey (on the eggs of grain moth and larvae of wax moth) with time are becoming estranged from the main cotton crop pests with lost of their searching and migrating abilities.

Thus mass production and application of entomophagoes requires the special knowledge, skills and nuance, which the workers of biolaboratories and specialists on plant protection should possess. For this purpose, under the Institute of plant protection Government organization on consultation and checking product quality "bisifat" is created and under the Tashkent State Agrarian University the big biolaboratory and classes so called "biomarkaz" was established where annually in winter and early spring times scientists, docents and cathedral educators of Institutes and Universities conduct trainings for specialists of biolaboratories and plant protection to enhance their skills and knowledge on biocontrol methods. In spring time of this year 2010 "biomarkaz' included an educational program with the new theme on introduction of predator mites Ablyseiuses (Amblyseius mcktnziei) where Dr. B.A. Tashpulatova, research fellow of ICARDA-PFU IPM-CRSP project presented the method of rearing and utilizing of predator mites amblyseiuses on cotton and other crops against spider mites and thrips.

Barno Tashpulatova
IPM

Presentation about the method of predator mite (amblyseius) rearing and application on the crop field to control of spider mites and thrips

Release of entomophages on cotton field in Fergana region by the biolaboratory workers

The application of "Participatory Market Chain Approach" in Tajikistan by International Center of Potato (CIP)

This short report presents preliminary results of the application of the so-called Participatory Market Chain Approach (PMCA) in Zeravshan Valley of Tajikistan, which is being carried out by the CIP Marketing assistant employed by the Tashkent Liaison Office of the International Potato Center

Workshop participants

(CIP), in collaboration with staff of Welthungerhilfe (NGO German Agro Action) working for the Project "Economic development through a comprehensive seed production, marketing and extension service system in Zeravshan Valley", funded by the EU. The PMCA engages those who directly participate in the market chain – the so-called 'market chain actors' – and agricultural service providers (such as researchers, credit providers and development workers) in facilitated group processes in which market opportunities are identified and assessed and innovations are developed. The approach was originally developed by the Papa Andina Regional Initiative of CIP in South America in 2005 and since then has been introduced and tested in several other settings and with other commodity chains. The main purpose of PMCA is to establish principles and practices of fair trade among all the participants. The PMCA is implemented in 3 phases:

Phase 1. Familiarization with the market chain and the key actors.

Phase 2. Joint analysis of potential business opportunities.

Phase 3. Development of market-driven innovations.

The major objective of PMCA in Zeravshan Valley was to bring small scale potato growers together with other market chain actors, researchers, and service providers to produce and share knowledge, build trust, and develop innovations that benefit potato growers as well as other market chain actors. PMCA process in Zeravshan valley started in July 2009 through conducting qualitative interviews involving different market chain actors and other stakeholders from governmental and non-governmental organizations. The districts of Ayni and Kuhistoni Mastchoh from Zerafshan Valley of Tajikistan were selected as target districts for conducting PMCA process. The interviewing process was split in two parts with the first part aimed at interviewing market chain actors in Ayni and Kuhistoni Mastchoh districts while the second part targeted major end-user markets, i.e. wholesale markets of Dushanbe and Khujand. The obtained results of the interviews were then presented in the first PMCA workshop organized in January 2010 which gathered together all interviewed participants. The event started with the introduction of nature, objectives and structure of PMCA process and continued with general discussion of the market chain findings while at the end of the event different thematic groups were formed. The second PMCA meeting was organized in May 2010 and aimed at continuing discussions and collaborative work in thematic groups, which were formed during the first PMCA meeting. At present time, the Phase 2 of PMCA is underway while the remaining PMCA activities are expected to be completed by September 2010.

Potatoes produced in the targeted area are being supplied to markers either in bulk or packed in 50 kg bags. The value chain is relatively simple and consists of seed producers (who also act as ware potato producers) procuring travelling traders and traders in wholesale and retail markets with potatoes. There are also other actors, such input suppliers, but their activities are mostly duplicated by travelling traders. Similar to many other countries, there is little or no trust between the potato market chain actors and hence no collaboration is possible based on the existing scheme. Despite the growing demand for processed potato products, no potato products are being processed in the country. The major problem (from the producers' point of view) related with potato sale to consumers is transportation. The target area is located, in fact, above 2 000 m of altitude and roads are in poor conditions. Also, due to the long and harsh winter, seed and ware potato supply is limited and only feasible from spring season onward. Hence, not every farmer is able to transport his/her products to major consumer markets. Storage is another problem, as many potato growers being unable to build necessary storage facilities are obliged to sell potatoes soon after

harvest at a price that is inconvenient to them. Besides, there are problems with trading on a free basis in the major markets as almost all the places available are occupied by permanent traders. Furthermore, the situation is worsened by the presence of barter trade that limits farmers' bargaining power with the false hope of getting more easily food items such as wheat flour, sugar, oil or fertilizers in exchange for potatoes. Anyway, the presence of barter trade cannot be ignored as it is a normal way of trading in almost all the villages of the selected districts.

Initially, PMCA was planned on two thematic groups such as ware and processed potatoes. However, given the amount of time allocated to implement the PMCA process, it was decided to concentrate on improving the existing value chain. The major issue raised throughout the discussions was aimed at how to differentiate potatoes produced in Zeravshan Valley from those originated in other parts of Tajikistan in order to be able to create a brand name that could give an added value to the potatoes produced in the two targeted districts. The major constraints preventing the development and further expansion of the existing potato chain were identified in a sequential order, as follows: (1) the presence of barter trade; (2) the poor quality of seed planting materials; (3) the unfair relationships among different market chain actors all along the market chain; (4) difficulty of transportation; (5) the current price formation due to the scarce bargaining power of potato growers, in general; (6) lack of storage facilities that would allow farmers to sell potatoes during more convenient periods of the year; and (7) insufficient marketability of potatoes, in the sense that potatoes often are not well graded and present bruises due to shocks at harvesting and during post-harvest operations, thus reducing their marketable impact. Based on these constraints, the working groups proposed to introduce some innovations such as improved sorting and packaging, labelling, better grading of the potatoes, contract farming, etc. These innovations will be further elaborated in the next PMCA meetings, reserving to the most promising ones their transformation into tangible products, technologies and partnerships.

The events conducted so far clearly showed the need for strong partnership among the PMCA participants. Despite the fact that each market chain actor provided extensive information about his activity in the market chain, he nonetheless had little ideas about how his activities might have an impact in the consequent stages of the potato chain.

Zokhid Ibragimov
CIP

Workshop participants are discussing the PMCA

Autumn Planted Chickpea – a promising technology in CAC region

Autumn planting of chickpea in Uzbekistan, Kazakhstan, Tajikistan and Azeraijan is proving a promising technology for increasing chickpea productivity in CAC region. Traditionally, chickpea planting in the region is done during spring. Cold tolerant chickpea lines distributed by ICARDA and selected by the NARS chickpea breeders are suitable for autumn planting. The new cold tolerant varieties are also resistant to prevalent diseases. Autumn planted chickpea yields 50% higher than spring planted crops. The yield advantage primarily comes from utilization of winter rain for crop growth, and avoidance of terminal heat during maturity.

Ram Sharma
ICARDA

Autumn vs. spring planting

New varieties of tomato and pepper are released in Armenia

Released varieties of tomato and pepper in Armenia

Scientists of the Scientific Center of Vegetable, Melons & Industrial Crops of Armenia made a significant contribution to the expansion of vegetables assortment in the republic. In 2010, five new varieties have been released and seven other varieties are in state varietal trials, created on a basis of collaboration with the World Vegetable Center. New released varieties differ by unique commercially valuable features and haven't analogies in the republic by the type of plant, shape and fruit color. Among them there are tomato varieties such as "cherry" type 'Armine' and 'Zeitoun', characterized by early ripening, high yield, fruits transportability and suitable for canning. New varieties of hot pepper 'Zspanak' and 'Gita', and sweet pepper variety 'Natalie', have the same valuable features too, and differ for high content of vitamin C.

Scientists of the Research Center continue working on other vegetable crops for submission of promising varieties in the state varietal trials.

Gayane Martirosyan, Scientific Center of Vegetable, Melons & Industrial Crops of Armenia
Ravza Mavlyanova, AVRDC

WORKSHOPS/TRAININGS

Wheat Breeders' Travelling Seminar in Uzbekistan

Participants of the travelling seminar in wheat research plots in Karshi

ICARDA-CAC organized a wheat improvement travelling seminar on 14-15 May 2010 in Karshi and Kibray, Uzbekistan, which was participated by national wheat scientists (mostly young researchers) from Uzbekistan, Tajikistan and Kazakhstan, Ram Sharma and Zakir Khalikulov from ICARDA-CAC and Mesut Keser and Yuksel Kaya from International Winter Wheat Improvement Program, Turkey. This travelling seminar gave an opportunity for the participants to evaluate wheat yield trials and breeding nursery being jointly managed by the national partners in Uzbekistan, ICARDA and CIMMYT.

Ram Sharma, Zakir Khalikulov
ICARDA

Trainings for women-artisans in Kyrgyzstan

Training on wool processing, At-Bashi

Trainings on the primary wool processing and hollow-form felted products were conducted under the ICARDA project in June 2010 for artisans of the 2 pilot groups in Lahol (10 women) and At-Bashi (15 women) villages located in the Naryn province of Kyrgyzstan. Trainings were organized by «CACSARC-kg» Public Foundation collaborating with ICARDA on project implementation in Kyrgyzstan.

Training program contained the description of the main technological operations of the primary wool processing. The trainer provided specifications of various sorts of wool and requirements to the quality of wool products.

In At-Bashi village, 15 kg of wool were processed by artisans. They produced for the marketing experiment 8 pairs of slippers, 1 chair-mat and 1 cushion made in double-sided ala-kiiz technique.

In Lahol village, participants of the group showed interest in both themes: wool processing and hollow-shape felting technique. They had not produce products in hollow-shape technique before, and the wool processing technique offered by this training had many elements which were new for them. They have processed 16 kg of wool. During the training, the

artisans have produced 10 pairs of slippers, 5 of which were given for the marketing experiment to be conducted under the project.

General conclusions of the trainings:

- All participants showed their great interest in getting new knowledge at the trainings and expressed their desire to continue their studies at other trainings;
- It is necessary to continue the systematic training of artisans on new techniques and design in the light of the main goal of the project – to promote felt products of Naryn artisans to international markets;
- It was decided to prepare not only photos of products, but also the samples of high-quality products;
- The identification of individual abilities of each participant of the trainings is important to foster the achievements by the participants and the quality of products. It was decided to conclude trainings with quality analysis of the produced products;
- It is necessary to conduct permanent work with the members of the pilot groups explaining them the idea of the project – only high-quality products can be exported and promoted to international markets, and only those artisans who strive to achieve international quality standards can be supported by the project.

Nariman Nishanov
ICARDA

Instructor: Kehjekan Toktosunova

Regional Training Course on Integrated Pest Management: Responsible Use of Pesticides

ICARDA and BASF jointly organized “Regional Training Course on Integrated Pest Management (IPM): Responsible Use of Pesticides” from 7 to 11 June 2010 in Tashkent, Uzbekistan. The course had 15 participants, mostly young IPM researchers, from Azerbaijan, Kazakhstan, Kyrgyzstan and Uzbekistan and representatives BASF and DuPont in Uzbekistan. The resource persons for this training were Dr. Amor Yahyaoui from ICARDA, Dr. Eva Erisgen from BASF, Drs. Keith Jones and Anthony Treen from Crop Life International. Drs. Ram Sharma and Zakir Khalikulov from ICARDA-CAC helped organize the training course. Dr. Kirsten Kienzler from ICARDA-CAC participated and contributed to the training course.

Ram Sharma, Zakir Khalikulov
ICARDA

Participants of the IPM training course

ANNOUNCEMENTS

Call for Research Proposals for the Vavilov-Frankel Fellowship

Bioversity International is pleased to announce the 2011 Call for Research Proposals for the Vavilov-Frankel Fellowship. The Vavilov-Frankel Fellowship Fund aims to encourage the conservation and use of plant genetic resources by awarding fellowships to outstanding young researchers from developing countries to carry out innovative research at an advanced research institute outside their home country for a period of three months to one year. The Fellowships are supported by Pioneer Hi-Bred International, Inc., United States and the Grains Research and Development Corporation (GRDC), Australia. Relevant information (announcement, application form and guidelines) is available on http://www.bioversityinternational.org.

The International Conference on Arid Land

On May 24-28, 2011 the International Conference on Arid Land will be held in Narita Japan as logical continuation of 10th Conferences on 'Desert Technology '. This Conference offers the opportunity for researchers associated with deserts and arid regions with diverse aspects of arid science, including natural science and the humanities to participate in this prestigious event. The conference topics include: desert energy, stress biology and desert agriculture, soil and water conservation technologies to combat desertification, human and social sciences on deserts; economy, society, culture and history and other related topics.

For more details information, please visit: http://www2.scej.org/env/gyouji/pdf/20110524-DTX_FirstCircular.pdf

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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 .