



# CAC NEWS

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in Central Asia and the Caucasus (CAC)

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Consortium  
Members



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### ADB - funded 'Soil and Water' Project Successfully Completed

**A**DB-funded project on "Improving Rural Livelihoods through Efficient On-Farm Water and Soil Fertility Management in Central Asia" (RETA 6136) has been successfully completed in August, 2007. This project was implemented in Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. A number of new technologies such as for amelioration of magnesium rich sodic soils, water-wise cost effective technologies, bio-drainage for control of ground water table, conjunctive use of saline and drainage effluents, resource conserving zero till technology, etc have been developed and transferred to the farmers for wide adoption. The implementation of the project in farmer participatory mode helped in raising the farmers' awareness and hands-on technology development and transfer processes.

Zero till technology tested in Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan gave very promising results and it now occupies close to 100,000 ha in the rainfed winter wheat systems in Southern Kazakhstan. The availability of good prototypes of planters in other countries is the only bottleneck that needs to be removed to result in significant benefits to farmers in other Central Asian countries. The safflower production technology has spread to more than 70,000 ha in Southern Kazakhstan. Raised bed systems tested extensively in Azerbaijan and southern Kazakhstan allowed seed saving by almost 50% while improving the productivity of winter wheat.

The research conducted on irrigation methods in flat and sloping lands has clearly brought out that surface mulching combined with alternate furrow irrigation and/or cutback irrigation not only increases water use efficiency by 30-50%, but also improves the cotton productivity by 15-24%. Micro-furrow irrigation technology researched in Tajikistan not only reduced soil erosion by 80% in sloping lands (up to 10% slopes), but also improved the water use efficiency in cotton by nearly 30% and yield by 20%. The average net benefit of growing cotton using micro-furrow irrigation is 43% higher than the traditional irrigation system.

### Message from Acad. Jamin Akimaliev, Director, Scientific Research Institute of Agriculture of Kyrgyzstan

Dear colleagues,

First of all, I would like to use this opportunity to extend my heartfelt greetings to you through the CAC Newsletter. Over time, this newsletter has become a tribune for all the stakeholders of the CGIAR Program for Central Asia and the Caucasus. I feel honored to speak about the recent advances in agricultural science in Kyrgyzstan.



I am happy to say that collaborative researches on germplasm improvement have led to development of high yielding stress-resistant varieties of wheat (Djamin, Zubkov, Azibrosh and Almira), barley (Adel) and chickpea (Rafat) in Kyrgyzstan. These varieties are now being multiplied for a wider farmer adoption under the SLM-R project. Collection missions organized in 2006 added as many as 266 entries of grain and legume crops to our existing germplasm collections of 1,240 accessions. Germplasm documentation in the national database will now ensure its accelerated use by national, regional and international partners.

Kyrgyzstan has joined the multi-country initiative on sustainable land management in Central Asia (CACILM). I am sure that CACILM would give a new impetus to research on management of natural resources, crucial for improved livelihoods of millions of the rural poor who depend on them. I believe that sustainable land management research (SLM-R) will succeed in enhancing the productivity of natural resource base and help reversing land degradation processes in the region.

Integrated Pest Management research conducted jointly with ICARDA and Michigan State University (MSU) has led to identification of mass rearing protocols for the beneficial insects. These IPM researches are gradually resulting in more promising outputs on the field scale.

Capacity building in the NARS has always been a high priority for all the CAC countries. Farmer participatory researches on crop, soil and water management, farmer field schools on IPM, training programs including on English language, seminars, workshops, thematic consultations on priority setting, socioeconomic and policy researches conducted jointly with CAC Consortium partners are benefiting the national programs immensely.

I believe that these joint endeavors led by the CGIAR CAC Consortium bring us closer to our common dream of efficient and environmentally sustainable agriculture. I wish to thank all the Consortium partners, the national governments and the international donor community for their whole-hearted support in contributing to better livelihoods through accelerated rural development.

Acad. Jamin Akimaliev

## Important Events

### ADB - funded 'Soil and Water' Project Successfully Completed (Continued from page 1)

The new resource conserving technologies reduce the tillage and crop establishment costs, save in fuel and labor, and result in timely planting of the crops. The zero till technology induced cost reduction and yield enhancing effects amount to more than

USD 40 per ha, suggesting a saving of nearly 4 million USD from 100 thousand hectares of zero till wheat in Southern Kazakhstan alone.

### Regional and Steering Committee Meetings of the Livestock Project



*Participants of the Regional and Steering Committee meetings*

The First Regional Workshop and Steering Committee Meeting of the ICARDA-IFAD project on "Community Action in Integrated and Market Oriented Feed-Livestock Production in Central and South Asia" were organized from 12-13 September 2007 in Issyk-Kul, Kyrgyzstan. The events were attended by scientists, research administrators, donor representatives and experts from Central Asian countries and Pakistan. During the meeting, the participants reviewed the project activities, shared their experiences and presented the results of the Project. In addition, they also assessed and compared livestock research approaches in Central and South Asia in order to plan future Project activities.

Dr. Raj Paroda, ADG, International Cooperation, ICARDA,

emphasized that rangeland management research in the project should be linked in a manner that it provides technical backstopping for the CACILM initiatives. While assuring ICARDA's continuous support, he underlined the need for traveling workshops to promote, disseminate and project the outputs of the livestock research programs.

Dr. Carla de Gregorio, Grants Coordinator, Asia and the Pacific Division, IFAD, strongly emphasized on the need for transferring new technologies to rural smallholders, especially to women who are involved in processing and marketing of livestock products. She agreed with Dr. Paroda that capacity building of NARS for conducting participatory researches is a must, especially considering the absence of vibrant extensions systems in the region, particularly so for the livestock production.

Dr. Liba Brent, International Consultant, University of Wisconsin, described ways and means to add value to local processing of goat fibers by women in Tajikistan. Dr. Barbara Rischkowsky, Project Coordinator, ICARDA, apprised the workshop participants on the status and listed the milestones for the project as under:

- National Planning Workshops for the second year will be organized in October 2008;
- Project Review Mission by IFAD independent consultant will be carried out in early March, 2008;
- Second Regional Workshop and Steering Committee Meeting will be hosted by Pakistan in November 2008, wherein at least one policy maker from each participating country will be invited.

### CACILM Project SLM-R Launched in Central Asia

The activities of the Sustainable Land Management Research Project, implemented by ICARDA under the CACILM Multi-country Partnership Framework, are currently actively underway.

During the Project Inception Workshop organized on 2-4 July, 2007 in Tashkent, Uzbekistan, the technical program of the project was outlined, research sites were selected, the national coordinators of the project were assigned, and budgetary allocations per country/site and research theme were agreed. As a follow-up to the workshop, technical programs for each of the identified sites have been finalized, except for Tajikistan. In addition, agreements for the implementation of the SLM-R project have been signed with all the national partners as per the Grant Agreement # TA 6357 signed between ICARDA and ADB. The first installments of funds have also been released to the national coordinators to immediately initiate the works. Dr. Raj Gupta, Manager, SLM-R project, has already circulated a vision

document to serve as Research Prospectus for sustainable land management for inputs of the national partners and fine-tuning.

Procurement process of need-based farm implements and research equipment for monitoring salinity, soil moisture, NDVI (biomass), and laser assisted precision land leveling for improvement of water use efficiency is already underway. The research sites are being characterized in GIS framework for inclusion in the Research Prospectus. An independent NGO "Agri-business and Entrepreneurship" has been sub-contracted to conduct the socioeconomic and policy advocacy component of the SLM-R Project under ICARDA's technical guidance. The technical program developed will address varied issues as indicated in the table below (Table 1).

Need-based trainings have been identified for the scientists, technicians and the farmers, which will be conducted as soon as the equipment/implements reach the research sites.

**Table 1. Issues to be addressed by the SLM-R technical program**

Kazakhstan	Kyrgyzstan	Turkmenistan	Uzbekistan
Salinity and low water productivity in rice-wheat systems, Re-use of drainage waters, wind erosion, biomass production, germplasm use for abiotic stresses, tillage and crop establishment	Shallow soils and fertility, salinity, high water table, re-use of drainage waters, irrigation-induced erosion, residue management, seed production and crop diversification	Tillage and crop establishment, residue management, surface cover on steep slopes, salinity management, and crop diversification and intensification, improving water productivity	Leaching methods, conjunctive use of water, germplasm for abiotic stresses, fodder for livestock, and animal nutrition in desert areas, water-wise technologies, and crop diversification using resource conserving technology (RCT) platforms

Note: Technical program for Tajikistan is yet to be finalized.

### Workshop to Strengthen Plant Breeding in CAC

A three-day regional workshop on “Strengthening National Plant Breeding and Related Biotechnology in Central Asia and the Caucasus Countries through Policy Advice” was organized jointly by PFU-CGIAR/ICARDA-CAC, with FAO's support, from 16-18 July 2007 in Tashkent, Uzbekistan. The key objective of the workshop was to discuss main policy issues on conservation and rational utilization of PGR for Food and Agriculture, as described in the International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA). Heads of NARS of CAC countries, scientists from Turkey and IARCs, and FAO actively participated in the workshop. The workshop was co-chaired by Prof. Abdushukur Khanazarov, DG, UzSPCA and Deputy Minister of Agriculture of Uzbekistan and Dr. Surendra Beniwal, Acting Regional Coordinator, ICARDA/PFU-CAC.

Dr. Elcio P. Guimarães, Senior Plant Production Officer, FAO, and Dr. David Bedoshvili, Consultant/Wheat Breeder, PFU/ICARDA/CIMMYT provided an overview of how ITPGRFA could be useful in promoting plant breeding in CAC. Two sets of recommendations on use of PGR were made during the workshop: (i) for national governments, and (ii) for international community.

**(a) Recommendations for the national governments:**

- To invite CAC countries to join the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) as a mechanism to promote conservation and use of PGRFA.
- To strengthen public support to agricultural research, particularly to plant breeding and related biotechnology.
- To protect plant breeders' intellectual properties through the introduction of simplified and effective patenting procedures, efficient royalty collection systems and subsidizing the plant patent fees.
- To strengthen PGR conservation, sustainable support is needed for operation of the national Gene banks, including provision of modern equipment and facilities.
- To develop medium- and long-term strategies prioritizing education of young researchers in the area of plant breeding and biotechnology.
- To strengthen plant breeding/genetics research by providing required equipment and facilities to the agricultural research centers.



*(from left to right) Dr Elcio Guimarães, Prof. Amir Amanov, Prof. Abdushukur Khanazarov, Dr Surendra Beniwal and Dr Zakir Khalikulov chair the meeting*

- To strengthen international cooperation to develop agricultural research emphasizing the use of PGRFA to facilitate exchange of experience.
  - To strengthen policies fostering regional cooperation on PGRFA management.
- (b) Recommendations for the international community:**
- To raise awareness among policy-makers on the relevance of PGRFA.
  - Provide simplified version of documents, such as ITPGRFA, UPOV convention, TRIPS agreement, CBD and Cartagena Protocol, in Russian, to the policy makers to educate them on international agreements and treaties related to PGRFA.
  - To request ITPGRFA Secretariat to approach CAC governments to stimulate their joining the treaty.
  - To share with the CAC countries the results of FAO and ICARDA studies in Georgia and Armenia, that are relevant to PGRFA policy issues, including Intellectual Properties Rights (IPRs).
  - To organize a regional workshop to share international experience on utilization of IPRs in plant breeding and raising awareness of importance of IPRs among policy-makers.
  - To ensure that policy-makers in the CAC countries will receive a copy of the final report of the workshop envisaged in Recommendation 5.

## Research Highlights: Germplasm Enhancement

### FOOD LEGUMES

#### Chickpea in Southern Kazakhstan: Impact Becomes Visible

ICARDA plant breeder, Dr. Bitore Djumakhanov has reported that using the ICARDA legume nurseries, a chickpea variety Janalik (Flip-94-25C) has been identified and is under active consideration of the State Varietal Testing Commission in Kazakhstan. On-farm trials of the Janalik variety in Krasniy Vodopad station yielded very promising results, especially in increasing farmers' income. Janalik variety already occupies more than 100 ha in Southern Kazakhstan. Janalik is tolerant to extreme temperatures and drought and yields up to 2 ton/ha under irrigated conditions. Another valuable trait of this improved variety is cold tolerance, which allows it to be sown in autumn, winter and early spring. It has also been observed that winter planting of chickpea results in higher productivity.

In addition, another chickpea variety, Tassai, is also under consideration of the SVTC of Kazakhstan for release. Similarly in Tajikistan, based on multi-year data line ILC 32-79 was developed under the name Kandbaland (Tall) and is under consideration of the SVTC.

*(Source: Dr B. Djumakhanov, ICARDA - Tashkent)*



*Kazakh farmer family is happy with the yield of the Janalik variety*

### VEGETABLES

#### Improved Vegetable Germplasm Tested in Uzbekistan

Uzbek Research Institute of Plant Industry (UzRIPI) conducted varietal trial of more than 100 varieties and lines of various vegetable crops provided by the World Vegetable Center (AVRDC), including high nutritious non-traditional crops. Ecological trial of promising lines of vegetable soybean, mungbean and pepper identified last year is being conducted in Andijan and Surkhandarya Experimental Stations of UzRIPI and the Khorezm Mamun Academy. In 2007, Uzbek Research Institute of Vegetable, Melon Crops and Potato tested 76 varieties and lines of vegetable crops, including: tomato, pepper, eggplant, onion, cucumber, daikon, and the best accessions identified will be submitted for competitive varietal trial next year. Study of 23 accessions of Chinese leafy cabbage was conducted in the Faculty of Vegetable Growing of the Tashkent State Agrarian University and promising varieties were identified with the vegetation period of 30-35 days and high content of vitamins and iron. The seeds of the promising varieties are being multiplied by the same institutions.

(Source: Dr R. Mavlyanova, AVRDC - Tashkent)



Dr Yermolova and Dr Abbasov evaluate promising sweet pepper variety

## Integrated Pest Management

### Conservation Tillage in Safflower Cultivation

Longer-term experiment was initiated to evaluate the performance of different cropping systems at the Krasniy Vodopad research station in Southern Kazakhstan in



Safflower yield under zero tillage

2001. The cropping systems were evaluated in farmer participatory mode and included safflower-based crop rotations, namely, (i) wheat-safflower-barley, (ii) fallow-wheat-safflower-wheat-alfalfa. The experiments were conducted in zero till background. Dr. Rakhim Medeubayev, Principal Researcher, Krasniy Vodopad station, reports that the yield of safflower under the three-field crop rotation with zero tillage was similar to that in the ten-field system with traditional deep tillage, though the production costs of zero tillage treatment were considerably lower. These multi-year research results indicate that it is possible to significantly improve economic efficiency of crop production, enhance the agricultural sustainability and raise farmers' income in the region using resource conserving technologies. In 2007, the success of these research activities has inspired several farmers in Southern Kazakhstan to adopt zero-till technology in safflower production in an area of 300 hectares. It is believed that this technology has a highly promising out-scaling and impact potential since the total area under safflower in Southern Kazakhstan is close to 110,000 ha.

(Source: Dr R. Medeubaiev, "Krasniy Vodopad" research station, Kazakhstan)

## Wild Halophytes and Salt Tolerant Crops for Improving the Livelihoods of Agropastoralists in Degraded Desert Lands of Central Asia

Central Asia is blessed with highly valuable indigenous genetic diversity of halophytes. Many of these indigenous halophytes grow on saline wastelands and in degraded lands. Until recently, no tangible research efforts were directed towards commercial cultivation of halophytes on farmers' fields, and hence the produce does not find a ready market. An innovative program on domestication and utilization of *Glychyriza glabra*, *Hippophae ramnoides*, *Elaeagnus angustifolia*, *Artemisia diffusa*, *Atriplex species*, *Kochia scoparia*, *Halothamnus subaphyllus*, and *Alhagi pseudoalhagi*, etc. was initiated in 2006 at the Madaniyat Farm in Central Kyzylkum desert, Uzbekistan using improved agro-techniques. Incorporation of these halophytic plants into a biosaline farming production system served as a very important source of income for many poor rural families who depend on crop-livestock production system practiced on marginal quality natural

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Sorghum grows higher than 2,5 m on saline lands, producing rich biomass

### Wild Halophytes and Salt Tolerant Crops for Better Livelihoods *(Continued from page 4)*

resources. The preliminary results indicate that there is immense scope for cultivating cereal crops such as pearl millet and sorghum with several species of halophytic plants for

enhancing biomass production in the desert areas for improving the productivity of the livestock. The detailed results will be reported in later issues of the CAC Newsletter.

*(Source: Dr K. Toderich, AVRDC - Tashkent)*

### Survey on Potato Pests in Uzbekistan

A three-year research (2005-2007), facilitated by CIP-Tashkent under the aegis of the CIP-IPM program, was conducted on «Potato pests and possibilities of their control by natural enemies in potato fields in Uzbekistan» by Dr. B.S. Baltaev, Entomologist of the Tashkent State Agrarian University, Uzbekistan. The research was conducted at Pskem site located about 180 km from Tashkent at an altitude of 1600 m asl. The objectives of the research were to identify the prevailing potato pests, as well as beneficial insects that can be used for biological control of the pests.

According to the three-year observation, the most predominant potato pest was Colorado potato beetle, followed in order of importance by cutworms (*Agrotis segetum*) and blister beetles (*Epicauta erythrocephala*). Under prolonged and mild temperatures (24-25°C) and wet weather, there is also a possibility of mass aphid development. In total, six most harmful species of aphids were identified, the most important being the green peach (*Myzus persicae*) and black bean (*Aphis fabae*) aphids.

The research has shown the possibility to regulate the number of potato pests using their natural enemies, including green lacewings (*Chrysopidae*), ladybird beetles

(*Coccinellidae*), pirate bugs (*Anthocoridae*), damsel bugs (*Nabidae*), hoverflies (*Syrphidae*), etc. When the number of these beneficial insects exceeds that of pests, the population of the latter (especially *Aphididae* and *Meridae*) decreases below the threshold level. In particular, at the Pskem site, the large-headed badister (*Broscus cephalotes* L.), which belongs to *Carabidae* family, has been identified as the main enemy of Colorado potato beetle. In addition, the effectiveness of green lacewings (*Chrysopidae*) to control aphids was also studied. The best results (up to 91.0%) were obtained after release of three-day eggs or larvae at the rate of 1:5 (beneficial insect: pest). The best option turned out to be the release of beneficial insects at the initial stage of pest colonization. It should also be noted that potato is a nectariferous crop, attracting many beneficial insects (especially, those of *Hymenoptera*), during the flowering stage. Thus, application of insecticides containing imidacloprid (Gaucho, Confidor, etc.), should be avoided.

The results of the research show that some natural enemies of potato pests, although not specialized, can be found under local agro-climatic conditions. Detailed data will be available through a relevant peer-reviewed journal.

*(Source: Prof. Baltayev, TSAU, Dr C. Carli, CIP - Tashkent)*

## Meetings / Workshops / Conferences

### Roundtable Meeting on “Bright Spots” Project



*During the roundtable meeting*

A roundtable meeting of the ADB-funded “Bright Spots” project was organized at the Tashkent Institute of Irrigation and Melioration on 16 August 2007 with the objective to present project findings and to initiate a dialogue with policy makers, farmers and other stakeholders for rehabilitating abandoned land through bio-remediation and creation of ‘Bright Spots’ through active participation of farmers.

The meeting was attended amongst others by Prof. T. Hudaiberdiev, the Rector of TIIM, Mr. Hong Wei, Country Director of ADB-Uzbekistan, Prof. A. Khanazarov, DG,

UZSPCA, and Deputy Minister of Agriculture and Water Resources of Uzbekistan, and Dr. S. Beniwal, Interim Regional Coordinator ICARDA-CAC and Head, PFU-CGIAR, Members of Parliament, representatives of Ministries and Government agencies for agriculture, land and water resources, research institutions and farmers. Dr. A. Qureshi, Acting Head of IWMI-Tashkent, highlighted the project achievements and spoke about the natural resource fatigue and problems of land degradation as a consequence of secondary salinization.

Comprehensive discussions took place on the possibilities of up-scaling the project results. Farmers participating in the project highlighted the positive impact of the project initiatives on their livelihoods, especially the licorice initiative on a 100 ha of abandoned land. However, they drew the attention of policy makers on the issues of financial resources and incentives to carry out these activities. Policy makers shared their views and promised to take necessary steps in this regard. Participants agreed that bio-remediation can be one of the cost-effective ways in rehabilitating saline lands but stressed the needs for more research in this field.

The ADB Country Director appreciated the project achievements and described it as a successful initiative with a potential of creating greater impact. Mr. Hong Wei also suggested sharing more detailed results of the project with policy makers and other stakeholders at the regional level.

*(Source: IWMI - Tashkent)*

### IWRM Seminar to Share Positive Water Management Experiences in Ferghana Valley

On August 3-4, 2007, IWMI-Tashkent and the Scientific Information Center of the Interstate Commission for Water Coordination (SIC ICWC) organized a seminar on “Experiences and Issues of Governance of the Main Canals and Trans-boundary Small Rivers of the Ferghana Valley”. The

seminar was a part of series of consultation meetings being organized under the Integrated Water Resources Management in the Ferghana Valley project (IWRM Ferghana) supported by the Swiss Development Cooperation. All stakeholders that represented provincial, basin irrigation system management,

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## Meetings/Workshops/Conferences

### Seminar on Water Management Experiences in Ferghana Valley *(Continued from page 5)*

district, local canal water organizations and their appropriate user driven and participatory organizations (Canal Water Committees, Union of Water Users and Water User Associations) of the three countries Kyrgyzstan, Tajikistan and Kyrgyzstan, attended the seminar. During the seminar, positive lessons learned over the three phases of the project were shared with the new stakeholders (Shakhimardansay Transboundary Small River, WUAs of the Aravan District of the Kyrgyzstan along the South Ferghana Canal (SFC), Aravan District Water Management Organization, Shakhrikhansay Hydrounit of the SFC in the Andijan part). The participants also exchanged ideas about institutions created under the project in different countries and discussed existing water allocation and distribution issues at different levels. The seminar was facilitated by Mr. Nazir Mirzaev (Canal component, SIC), Mr. Yusup Rysbekov (TSR component, SIC) and Mr. Jusipbek Kazbekov (Water Management Specialist, IWMI). The key conclusions of the seminar-communiqué were the recognition of the importance of the project results and recommendation for their wide dissemination. It was observed that, in spite of the institutions created under the project being young, they are playing a significant role in improving management of water. This experience must be shared with other water users in the

region. The participants acknowledged the importance of the integration of all types of water users (irrigation, water supply, industry, fisheries, ecology etc.) in the participatory user-driven organizations, which are being established under the project (CWC, UWU, WUA) and stressed the need to establish similar organizations at the basin, system and canal levels. The seminar was followed by a tour to the pilot South Ferghana Canal.

*(Source: IWMI - Tashkent)*



*Mr. Jusipbek Kazbekov, IWMI, makes his presentation on WUA development*

### Water Users' Association Exhibition in Osh



*Exhibition attracted a large number of water users, farmers, scientists and policy makers*

A regional exhibition on "Integrated Water Resources Management (IWRM) in Central Asia" was organized on 8 September 2007 in Osh by the Ministry of Agriculture, Water Resources and Processing Industry of Kyrgyzstan, IWMI-Tashkent, Scientific-Information Center of the Interstate

Coordination Water Commission for Central Asia (SIC ICWC). The event was funded by the Swiss Agency for Development and Cooperation (SDC). Policy makers and scientists from Central Asian countries, representatives of international organizations, as well as a large public of Water Users' Associations' members and farmers were among the participants.

The exhibition demonstrated achievements in the water resource management at canal, WUA and on-farm level. Water saving technologies, the best water distributing practices in WUAs and methods for the yield increase and agrotechniques were also presented. The program of the exhibition also included series of workshops on: a) Facilitating creation of political and legal framework for introduction of IWRM at the regional level, b) Participatory approach as an important element of water resource management, c) The issues of WUA establishment, sustainability and development, and d) The role of extension services in achieving IWRM goals. This exhibition brought together many projects and organizations, allowing the exchange of accumulated experiences for sustainable use of water.

*(Source: IWMI - Tashkent)*

### Japanese Scientists Visit ICBA, PFU to Discuss Salinity Issues

Dr. Kristina Toderich, ICBA, organized a meeting for the visiting scientists from the Universities of Yamanashi and Kitakyushu, Japan, on 24 August, 2007 at the PFU/CGIAR-CAC in Tashkent, Uzbekistan. The visiting team was led by Dr. Kengo Sunada. The visitors made presentations on strategies for use of marginal land, water and plant resources for salinity control in the Aydarkul-Arnasay Lakes System (AALS) and southwestern Kyzylkum Desert. The PFU members were led by Dr. Raj Gupta, Interim Head of CGIAR-PFU. The meeting was attended by hydrologists, meteorologists, botanists, livestock and plant breeders and experts on water and land management from IARCs and different institutions and organizations of Uzbekistan. The discussions were followed by a field visit organized by Dr. Kristina Toderich, ICBA for the Japanese scientists. The report will be shared when ready.

*(Source: Dr K. Toderich, ICBA - Tashkent)*



*Dr Raj Gupta (fourth left) welcoming Dr Kengo Sunada (first left)*

### FAO-TCP Project Completion Workshop Organized

A workshop of the FAO-TCP project on "Sustainable Agricultural Practices in Drought-Affected Region of Karakalpakstan" was organized from 4-5 September 2007 at Chimbay site, Karakalpakstan. The workshop was attended by the project stakeholders, policy makers, agricultural scientists and administrators from Uzbekistan, Dr. Aziz Nurbekov, ICARDA-CAC, and Dr. Theodor Friedrich, FAO-Rome. During the workshop, participants were able to explore

the benefits of conservation agriculture and improved irrigation practices in drought management in Karakalpakstan. During the event, zero till and raised bed technologies, farm survey and monitoring techniques, crop diversification for improving soil fertility, as well as various aspects of using zero-till drills in cotton were demonstrated and intensely discussed. Farmers wanted that good prototypes of zero till and raised bed planters should be replicated locally and made available at low cost

### Farmers' Field Days on Natural Resource Conservation

Two Farmers' Field Days, aimed at up-scaling the improved soil and water management technologies were organized on 12 and 28 July, 2007 in Kazakhstan and Uzbekistan, respectively, under the aegis ADB-funded "Soil and Water Management" project. Through these events information related with minimum/reduced tillage practices for cultivation of cotton and wheat crops were shared with farmers in Almaty province, Kazakhstan, and Syrdarya province, Uzbekistan. The farmers were very appreciative of the field trials which demonstrated that zero till technology can produce the same yield with significant

savings in tillage and crop establishment costs. In Syrdarya site, field trials were laid out to demonstrate the impact of water saving technologies such as portable plastic chutes, sprinkler and alternate furrow irrigation, as well as conjunctive use of drainage waters. Farmers in Syrdarya expressed keen interest on dual purpose wheat for meeting fodder shortages during the winter season and emphasized the need for technologies for management of crop residues for control of weeds, improve water productivity and avoid residue burning which deteriorates the air quality and soil fertility.

### International Conference on Geocology and Biodiversity Conservation



*Participants of the International Conference*

Second international conference on "Current Issues of Geocology and Conservation of Biodiversity" was organized jointly by the Academy of Sciences, Ministry of Education and Sciences, and Research Institute of Biology and

Soil of Kyrgyzstan at Issyk Kul, from 18-21 September, 2007. Researchers from Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Russian Federation and Japan, as well as international organizations, participated in the conference. CGIAR-PFU was represented by the team of ICARDA-MSU Integrated Pest Management project, including Drs Nurali Saidov, Murat Aitmatov and Barno Tashpulatova. They made four presentations on: a) geochemical ecology, b) conservation of biodiversity, c) methodology of ecological research, and d) landscape ecology and biological methods of pest control. The participants adopted a resolution on ecological problems and their solution for Central Asia. This Resolution was sent to the Governments of all five countries of Central Asia

*(Source: Dr M. Aitmatov, ICARDA - MSU team)*

### Farmers' Field Days on Vegetable Production in the Region

Farmers' Field Days were conducted by the World Vegetable Center (AVRDC) in all eight countries of the CAC region during July-August 2007. In total, up to 200 farmers, scientists and government representatives evaluated performance of the promising vegetable varieties and lines

provided by AVRDC, tested by its partner research institutions. The best of these varieties will be submitted to the State Varietal Trial commission for future release. Participants engaged in lively discussion regarding wide introduction of the new varieties in the farmer's fields.

*(Source: Dr R. Mavlyanova, AVRDC - Tashkent)*

## Miscellaneous information

### PFU-ICARDA-CIMMYT Sub-Office in the Caucasus

PFU/ICARDA-CAC has established a sub-office in Tbilisi, Georgia to facilitate implementation of the CGIAR ecoregional program in the Caucasus and support the efforts of the Consortium centers in the region. Dr. David Bedoshvili has been hired as Consultant by the PFU/ICARDA-CAC and CIMMYT to run the sub-office and provide support to all biodiversity and integrated gene management (BIGM) related activities and also respond to the needs of the wheat germplasm improvement program in the Caucasus. Dr. David Bedoshvili will report to the Head, PFU and ICARDA Regional

Coordinator in Tashkent and also facilitate the resource mobilization activities in the region for supporting agricultural research in the Caucasus. Dr. Bedoshvili can be contacted at:

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The PFU-CGIAR welcomes Dr. Bedoshvili and wishes him good success in strengthening joint efforts of PFU, CIMMYT and ICARDA in the Caucasus.

### New Efforts on Knowledge Dissemination



Two new publications on: 1) Introduction to Farmers' Field Schools and 2) Major Pests and Diseases of Tomato and their control, were prepared by the team of ICARDA-MSU project on "Integrated Pest Management in Central Asia and the Caucasus". Copies can be obtained by contacting Dr. Nurali Saidov (n.saidov@cgiar.org), or Murad Aitmatov (m.aitmatov@cgiar.org).



PFU - CGIAR website is coming through major renovation. Among the new features will be: i) regional database of agricultural research contacts, ii) database of publications available for downloading, and iii) latest news on the activities of CGIAR PFU and other Consortium Partners. The new site will be cross-linked with the existing websites of the Program and its partners.

### Forthcoming events

- A Farmers' Field Day and Roundtable Meeting on the Use of Phosphogypsum for remediation of high magnesium sodic soils in irrigated areas will be held from 27-28 September 2007 in Turkistan and Shymkent, Kazakhstan.
- Two workshops on "National Integrated Strategy for Plant Genetic Resources Management and Use" will take place from 02-05 October 2007 in Erevan, Armenia, and from 15-17 October, 2007 in Tbilisi, Georgia, respectively.
- "Review and Planning Meeting on Vegetable Varietal Trials in Central Asia and the Caucasus" will be organized from 16-18 October, 2007 by the Regional office of the World Vegetable Center (AVRDC) in Tashkent, Uzbekistan.
- A three-month English language training for young scientists will be organized by PFU-CGIAR for CAC during 5 January - 5 April, 2008. The course will be held in Tashkent, Uzbekistan.

### Staff Changes

#### Dr. Raj Gupta Becomes New Interim Regional Coordinator, ICARDA-CAC

**D**r. Raj Gupta took over the interim coordination of ICARDA-CAC and PFU-CGIAR from Dr. Surendra Beniwal effective from 20 August 2007, in addition to his responsibilities as the Manager of SLM-R project (CACILM). Dr Gupta possesses an impressive record of managerial success. He served as Coordinator of the Indian national network on use

of low quality waters and reclamation of salt affected soils, the National Coordinator of the World Bank funded NATP Project in ICAR, New Delhi, and Regional Facilitator of the Rice-Wheat Consortium and Head of CIMMYT-India. His new colleagues wish him all the success in his new position in CGIAR-CAC.

#### Dr. Asad Qureshi Joins IWMI-Tashkent Office



**D**r. Asad Sarwar Qureshi, Water Resources Management Specialist, joins IWMI-Tashkent office on July 1, 2007. Dr. Qureshi has long experience in dealing with irrigation management, groundwater management and soil salinity related issues in the semi-arid areas. He is also expert in soil-water-crop modeling and socio-economic aspects of water management in river basins. Dr. Qureshi

has served IWMI in different capacities. He was Director of IWMI-Pakistan in Lahore (2001-2003) and Head of IWMI-Iran (2004-todate). While working in IWMI-Tashkent office, he will continue performing his duties as Head of IWMI-Iran office in Karaj. In IWMI-Tashkent, he will be Project Manager for the ADB funded "Bright spots" project and will partially be involved in IWRM Fergana valley project. He is also working on a joint project with ICARDA on "improving water productivity in the Karkheh River Basin" funded by CGIAR Challenge Program. We welcome him and wish him all the success in his new position.

#### New Staff

- Mr. Sherzod Qosimov joined PFU-CGIAR for CAC as new WEB Manager starting from 14 August 2007.
- Ms. Dildora Tashpulatova joined CIP - Tashkent as new Interpreter / Translator starting from 1 August 2007.
- Ms. Diloram Sabirova joined IWMI-Central Asia as new Secretary starting from 1 July 2007.
- Mr. Murod Makhmudov leaves his position of Administrative Assistant at ICARDA CAC on 27 September 2007.
- Ms. Nargiza Abdulatipova leaves her position of Secretary at ICARDA-CAC starting from 21 October 2007.
- Mr Yuri Idrisov leaves his position of Technical Assistant, Publications, ICARDA-CAC, starting from 26 October 2007

#### Staff Leaving the Program

### Honored

#### Dr. Kristina Toderich Honored by Uzbekistan Government



**D**r. Kristina Toderich, Plant Scientist, ICBA-Tashkent, was awarded with "Dustlik", a prestigious national medal from the President of Uzbekistan for "significant achievements in building intellectual and spiritual capacity of peoples of Uzbekistan and development in the area of science, considerable contribution towards strengthening of independence of the Motherland, peace and stability in our country". Under the CGIAR Program

in CAC, Dr. Kristina Toderich is conducting research activities of ICBA for utilization of halophytes for remediation of saline lands in Central Asia.

#### Dr. Raj Gupta Recognized by Rice-Wheat Consortium (RWC)

**D**r. Raj Gupta, Interim Regional Coordinator of ICARDA-CAC, has been awarded with a plaque issued jointly by Dr. N.P. Shrestha, Executive Director, Nepal Agriculture Research Council, and Chairman, Regional Steering Committee of RWC, and Dr. Masa Iwanaga, Director General, CIMMYT-Mexico. This recognition is for his services as the RWC Facilitator for "sparking a farmer-driven revolution in cropping practices based on reduced tillage and other resource conserving technologies, thereby contributing to a greener, food-secure future for millions of farmers" in South Asia.

