



CAC NEWS

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Consortium
Members



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STEERING COMMITTEE MEETING OF IFAD-FUNDED PROJECT HELD

The fourth Steering Committee Meeting of the IFAD-funded project entitled "Integrated Feed and Livestock Production in the Steppes of Central Asia" was held in Tashkent, Uzbekistan, on 03 March, 2003. The project was initiated in 1999 by ICARDA with a total budget of USD 1.5 million for a period of three years (September, 1999 - September, 2002). Four countries of Central Asia: Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan are involved in the project, addressing four research themes: socio-economics, range management, feed production and flock management. The goal of the project is to contribute to development of productive and sustainable small-ruminant systems in Central Asia, through integration of range, livestock and crop production, with a view to improve the income and welfare of smallholders and to conserve the natural resource base.

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Participants of the Fourth Steering Committee Meeting,
IFAD-funded Project IFL-CA, Tashkent

MAKING IRRIGATION EFFECTIVE AND RESPONSIVE TO WATER SCARCITY IN CENTRAL ASIA

Message by Dr. Frank Rijsberman

DG, IWMI, Co-Chairman, CGIAR Program Steering Committee

The primary problems in Central Asia are institutional. There is a basic lack of well-coordinated laws, regulations and organizational structures, and overall water resources management governance which could not promptly adjust to the post-independence market economy. Most often, the water use and management strategies have remained the same as during the period of the former Soviet Union and are therefore insufficient or non-responsive. There is an urgent need to develop better water supply planning and procedures, and to make management and operation of irrigation systems more effective and responsive to water-scarce situations under the present market economy.



Central Asia's chronic lack of water creates a host of problems that IWMI research is addressing. IWMI established an office in Tashkent, Uzbekistan, to coordinate its growing research activities in this region. Our goal is to gain a better understanding of the specific needs of this region which suffers from an alarming level of water scarcity. IWMI's research looks at problems such as the severe ecological deterioration in the Aral Sea basin - due to saline irrigation water, water-logging, groundwater overdraft and the health and environmental impacts of irrigating with wastewater. The knowledge generated through IWMI's research is helping affected countries scrutinize their policies and improve organizational arrangements for managing water resources more sensibly.

In collaboration with the Swiss Agency for Development and Cooperation and a key partner - The Scientific Information Center of the Inter-State Commission for Water Coordination - IWMI is currently carrying out a pilot project in the Fergana Valley, a water stressed intersection of Uzbekistan, Kyrgyzstan and Tajikistan, that traditionally was home to extremely fertile lands. The project aims at improving water resource management and identifying roles and tasks for local water managers and farmers. Key stakeholders also participate in pilot-scale implementation of integrated water resource management.

Another project evaluating water conservation practices with local and regional partners in four Central Asian countries - Uzbekistan, Kyrgyzstan, Kazakhstan and Tajikistan - is underway. Our priority for this region is to work through partnerships with National Agricultural Research and Extension Services (NARES), which will give us a better understanding of the specific needs of the countries we work with and help knowledge and expertise transfer to local communities.

IWMI is also working with local authorities in the Republic of Karakalpakstan to build their capacity and establish, train and sustain Water Users Associations (WUAs) to effectively manage water resources within their areas, under an extremely water scarce situation. Another small but significant activity in partnership with the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME), is aimed at understanding of local level initiatives, practices and procedures in Bukhara, Syr-Darya and Djizak provinces of Uzbekistan, which have, contrary to the overall situation of this area, arrested escalating trends in land and water degradation and sustained or increased water and land productivity through strong leadership.

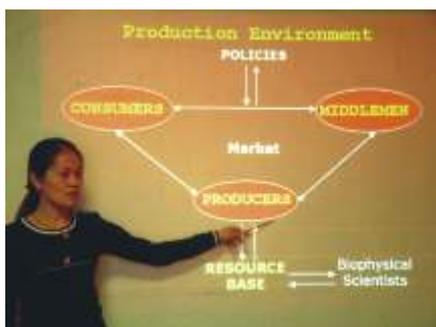
Important Events

The meeting was attended by the National Coordinators, Dr. Ahmed Sidahmed, Technical Adviser, Livestock and Rangeland Management Technical Advisory Division, International Fund for Agricultural Development (IFAD), Dr. Luis Iniguez, Project Coordinator, ICARDA, Dr. Richard Thomas, Director, NRM Program, ICARDA, and the scientists of ICARDA-CAC Regional Office headed by Dr. Raj Paroda, Regional Coordinator, ICARDA-CAC.

In his remarks, Dr. Sidahmed mentioned that he was impressed with the achievements at the Karakul Research Institute, which he visited the day before. He also was happy to see the project assistance in the organization of the basic needs of scientists, such as laboratory support for field analysis. Although IFAD's portfolio is very minimal in Central Asia, IFAD always favors interactions with its development programs for securing the livelihoods of farmers and the sustainable use of natural resources, he said.

Dr. Raj Paroda also addressed the participants with his welcome remarks, emphasizing that the project has obviously served a very useful purpose in evolving technologies that would improve the well-being of the rural poor. He thanked all the participants, especially Dr. Sidahmed for attending the meeting, which in his opinion, is very important as it will help in reviewing the past accomplishments and also in looking forward and evolving the future strategy to address priority problems that still need scientific solutions.

Dr. Iniguez informed the participants that the project has made good improvement in the socio-economic component particularly emphasizing on training of young scientists in statistical data analysis.



Ms. Madina Musaeva making the presentation

Ms. Madina Musaeva, a young social scientist, who recently joined the project in Tashkent office, made an impressive presentation on the three-year results of socio-economic activities highlighting the main characteristics of production systems and marketing channels in all the four countries involved. This was followed by presentations made by the National Coordinators, in which they focused on the most significant findings under the first phase of the project in their respective countries and stressed the need for project continuation in order to ensure verification and dissemination of the technologies developed so far. Dr. Marat Kineyev, NC-Kazakhstan, informed that he would discontinue his duties as the National Coordinator in view of the structural changes in agrarian science of his country, and introduced the new National Coordinator, Prof. A. Sansizbay, who had been associated with the project in the area of animal epidemiology.

Dr. Sidahmed made a presentation on behalf of GL-CRSP, the USA, representatives of which could not attend the meeting. The activities on simulations and modeling of feed and livestock production raised interest among participants and Dr. Iniguez explained the benefits of this method.

Although the project duration is over, IFAD has officially agreed on extension of the project for one-year period on a no-cost basis. Dr. L. Iniguez presented a summary of the workplan for the Year 4, emphasizing that substantial reductions were

made to include only some activities that could not be disrupted to avoid losing data of important experiments till the second phase is approved by IFAD. Only four activities per country will



During the working session

receive minimal support to this end. During this period, the major emphasis will be laid on improving and testing of the most promising technologies of feed and livestock production so developed under the project. The meeting participants approved the work plan and budget for the extension phase.

Dr. Iniguez made a brief presentation on the second phase of the project entitled "Community Action in Integrated and Market Oriented Feed-Livestock Production in Central Asia", earlier submitted to IFAD for consideration. It was emphasized that research would be conducted in few benchmarks, using established research sites. The future activities proposed for the second phase will include community based research exploiting complementarities and reducing conflicts; adaptive research process for technology testing; more emphasis on socio-economic and policy research; strategic alliances and building on existing knowledge; information and networking; and training. Participatory research will be implemented based on competitive grants for specific development particularly for other activities beyond the benchmarks. The competitive grants would develop specific actions to integrate the knowledge generated in benchmarks and will allow other stakeholders like NGO's and Universities to participate in strategic alliances in addition to NARS. National Coordinators endorsed the proposal developed by ICARDA.

Dr. Sidahmed suggested that the three Caucasian countries be also included into the second phase project proposal along with Tajikistan.

In his Chairman's remarks, Dr. Richard Thomas stated that the project has made good progress. "We need to focus on priority issues in future and highlight in particular on various success stories accomplished under this project". He also emphasized on the need for continuation of the project in view of importance of livestock sector in the region.

The meeting ended with expression of thanks to IFAD and ICARDA for having started this critical project, which has greatly contributed to the development of research activities and to the improvement of farmers' income. Dr. Paroda made a comprehensive statements of issues that should be considered in the next phase and emphasized that this is the only project on livestock production in Central Asia, and thus, should receive due importance. He stressed the need for the development of more partnerships, including those with NGO's and Universities, in addition to other countries, India for example, that have successfully developed their livestock industry on the basis of small producers.

The role of ICARDA-CAC office in organization and logistic support provided through the first phase of the project, in particular by Drs. Raj Paroda and M. Suleimenov, was highly appreciated.

Research Highlights

WHEAT

WHEAT NURSERY ESTABLISHED AT THE TASHKENT AGRARIAN UNIVERSITY

The Tashkent State Agrarian University (TSAU) is becoming an active partner of ICARDA and CIMMYT joint Program on germplasm improvement of cereal crops in Central Asia. This is a result of strengthening relations between ICARDA Regional Office in Tashkent and the TSAU. In fall 2002, a new experiment on wheat and barley testing from international nurseries was established with active involvement of students and management of TSAU. A total of 87 accessions were sown. Also, a demonstration nursery was set up on an area of 25 m² to test new promising wheat varieties, which have not been released in Uzbekistan yet. The young scientists and students of the University also proposed to initiate additional experiments on different seed and fertilizer rates. In the beginning of this year, Dr. Bitore Djumakhanov, Cereal Breeder from ICARDA Regional Office in Tashkent, visited TSAU and its fields to assess a general status and cold resistance of the sown material. It was found that germination rate was very high (96%) and cold air temperature did not affect the plant development. Some difference was observed in the plots being treated with different agricultural practices. It is anticipated that students as well as ICARDA/CIMMYT scientists coming from abroad will visit the experiments in TSAU during the growing period.

To apprise the students and research staff of TSAU about ICARDA's activities in the region, Dr. Raj Paroda, Regional Coordinator, ICARDA-CAC, gave a lecture to the faculty and students in TSAU highlighting the latest achievements in the area of germplasm enhancement, soil and water management, feed and livestock production, etc. At the request from TSAU, Dr. Paroda gave another lecture on Indian agricultural research system, in which he shared with the

audience some success stories about Green and White Revolutions in India. Also, a set of literature from the nine CG Centers involved in the CGIAR Program for CAC was provided for the library at TSAU both in English and Russian languages. Evidently, TSAU is becoming an active partner of ICARDA in Uzbekistan that will allow to attract more young post graduate students to the joint research activities thus laying the ground for new generation of experienced scientists in agriculture.



*Dr. Bitore Djumakhanov observing the trials at the TSAU,
31 March, 2003*

BARLEY & LEGUMES

NEW VARIETIES OF BARLEY AND LENTIL IDENTIFIED IN UZBEKISTAN

For the first time during the last five years of research collaboration, Uzbek breeders from Galla-Aral Branch of Andijan Research Institute of Grain succeeded in selecting a new barley variety named "Pallidum 2002". Its origin is from ICARDA's nursery IEBON-98 (CWB-117-77-9). It gives an average yield of 6.9 t/ha under irrigated conditions, compared to 5.4 t/ha for the standard variety. The 1000 grain weight is around 45 gram as against 38 gram for the check variety. The new variety is resistant to *Helmenthosporium* and also resistant to lodging and cold. Based on its superior performance, the variety "Pallidum 2002" has been submitted to the State Official Testing Commission in March, 2003. Once released, this variety will be a

good source of both grain and green fodder for livestock feeding.

Gala-Aral Branch of Research Institute of Grain, Uzbekistan, has also submitted a new lentil variety named "Oltin-don" selected from ICARDA's nursery ILL-7513 to the State Variety Testing Commission for final evaluation. The variety matures in 116 days and is high yielding (1.2 t/ha). It can be harvested with a combine as the first pod branching is about 20 cm above the ground and the plant has around 60 cm height. This is likely to be the first lentil variety released so far in Uzbekistan.

POTATO

CIP'S SUPPORT FOR POTATO IMPROVEMENT

CIP is one of the ten CG Centers working in the CAC region on potato improvement. In 1998-2002, CIP distributed *in vitro* plantlets of improved potato varieties to Armenia and Georgia, where some promising accessions have already been identified. This work will be continued in 2003 as well through additional distribution of 11 *in vitro* clones to Uzbekistan, Kazakhstan, Kyrgyzstan and Tajikistan. CGIAR-PFU office will provide logistic support for the distribution of the material, which

is expected to arrive in Tashkent in May this year. Also, scientists from CIP have plans to visit Uzbekistan, Kazakhstan, Kyrgyzstan and Tajikistan right after the CGIAR Steering Committee Meeting in June. To identify priorities for potato breeding and finalize future activities with national scientists, CIP plans to organize a regional workshop on potato improvement in the region later this year.

GROUNDNUT

PROMISING VARIETIES IDENTIFIED

Uzbek Research Institute of Plant Industry (UzRIPI) initiated an experiment on planting date of groundnut to consider the possibility of its planting after wheat and barley. The varieties received from ICRISAT were planted under two planting dates - 8 April (basic) and 15 July (late). Varieties ICGV-86115 and OCGV-94088 were identified to be the best yielding under both planting dates. Considering their good performance, both these varieties have been submitted to the State Variety Testing Commission for future release under the names Salomat and Muntaz, respectively. A Groundnut Specialist from ICRISAT, Dr. Shyam Nigam is planning to provide assistance to UzRIPI for further seed multiplication of these varieties.

Scientists of Tajik Research Institute of Crop Husbandry have also reported about two promising varieties from the material provided by ICRISAT. These are IFDRGVT-94113 and IMGVT-94016. They both outyielded the standard variety Tajikskaya-15 by 38.2 and 23.2%, respectively. It is planned to multiply the seeds of these varieties and propose them for release in near future.

ICRISAT SUBMITS A PROPOSAL TO EU

ICRISAT has recently submitted to the European Union a project proposal entitled "Crop diversification in Central Asia and the Caucasus: introduction of groundnut to increase income of smallholder farmers and sustainability of existing cropping systems". This initiative of ICRISAT is very timely, as the project addresses the important issues of crop diversification through increasing the role of legumes. Its major objectives are: to introduce improved groundnut genotypes into existing cropping systems; to develop integrated crop management options for profitable cultivation of groundnut; to popularize groundnut cultivation among farmers; to establish seed production and delivery system to ensure availability of good quality seeds of improved groundnut cultivars; and to develop capacity for groundnut research and development in the region. The main beneficiaries of the project will be small-scale farmers in rural areas and poor urban consumers in Armenia, Azerbaijan, Georgia, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. The proposed funding of the project is 300,000 Euro for four years.

SEED PRODUCTION

JOINT FAO-ICARDA MISSION VISITS CENTRAL ASIA

A joint FAO-ICARDA mission, facilitated by ICARDA Regional Office in Tashkent, visited Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan from 21 January to 16 February, 2003. Dr. Samuel Kugbei, Seed Economist, ICARDA, and Dr. Mogens Lemonus, Consultant/Team Leader, FAO, assessed the efficiency of seed supply, seed distribution and marketing systems. They met the senior staff of the Ministries of Agriculture, representatives of public and private seed sectors, NGOs and the donors. According to their assessment, there is greater need for regional collaboration in the seed development issues, not only among the countries of the region but also with the specialists from the developed seed systems outside Central Asia and from the international regulatory bodies. The need for training in various aspects of seed technology and seed program management, as well as other aspects of institutional strengthening and capacity building, was also highlighted. The FAO and ICARDA team proposed an Action

Plan to address three main objectives: (i) reformation of governmental seed sector support programs, including the seed regulatory framework, (ii) improvement of local seed production systems, and (iii) development of regionally competitive seed industries with effective links to the international seed industries.

Also, the team proposed to organize a Regional Seed Conference in June 2004. The Conference would explore issues and opportunities of seed production in CAC, make international rules and regulations more familiar to the national governments, introduce examples of successful seed system management in the developed countries, demonstrate new technologies and create opportunities for business. It is anticipated that a Regional Working Group will be established during the Conference, which will manage the much needed regional collaboration in the field of seed sector more effectively.

CONSERVATION AND EVALUATION OF PLANT GENETIC RESOURCES

PLANS TO STRENGTHEN PGR ACTIVITIES

USDA Team including Dr. Jim Stevenson, Ms. Kapur and Dr. Ned Garvey visited Uzbekistan with the purpose to review the activities under various programs supported by USDA-PL 480. They visited PFU-CGIAR office on 26 February, accompanied by Mr. Nizam Joldashbayev, representative of the USA Embassy in Tashkent and Dr. Abboskhon Marupov, DG, "Agroilmdunyo", and discussed possible ways of future collaboration in the area of plant genetic resources. In particular, they considered the on-going issues related to reconstruction of genebank storages in Uzbek Research Institute of Plant Industry, Research Institute of Cotton Growing and Andijan Research Institute of Grain. Later, the USDA team visited the germplasm storage facility recently renovated at the Uzbek Research Institute of Plant Industry and discussed with the scientists of this Institute future plans for collection mission on vegetable crops (garlic and onion) to be held in 2004. Dr. Ned

Garvey also met the participants of the English training course organized by PFU. Dr. Stevenson thanked ICARDA and especially Dr. Raj Paroda for all the technical backstopping and equipment support provided for the renovation and modernization of the Uzbek Gene Bank. He desired to receive similar in future as well.

ONE DE-HUMIDIFIER INSTALLED

IPGRI has recently made available a de-humidifier to the Gene Bank at Uzbek Research Institute of Plant Industry to improve the seed storage facilities in the renovated Gene Bank building. Also ICARDA has helped in the installation of the seed storage racks in the temperature-controlled room. The work for storing fresh seeds in the plastic containers has also started after required germination and seed moisture testing.

PGR SPECIALISTS FROM ICARDA VISIT THE REGION

Two ICARDA specialists on PGR visited the region in the beginning of this year to investigate the progress on modernization of gene bank storage facilities and discuss PGR related issues. Dr. Ken Street visited Turkmenistan, Kyrgyzstan, Tajikistan and Uzbekistan (15-29 January) and discussed the problems related to PGR conservation in each country along with possible ways to provide needed support. He

also reviewed a training program for PGR specialists from the region and worked out the issues related to national inventory of *ex-situ* collections. Later, Mr. Bilal Himed, Regional Scientist on PGR, also visited Kyrgyzstan, Tajikistan and Uzbekistan (19-28 February) and made practical recommendations relating to medium storage facilities to be created in Kyrgyzstan and Tajikistan.

INTEGRATED PEST MANAGEMENT

SUNN PEST MANAGEMENT

Significant progress has been made by entomologists in their quest for alternative ways to manage Sunn pest. This insect pest is causing significant losses of wheat throughout Iran, Afghanistan, and many other countries in Central and West Asia and North Africa. Presently, the only way to manage the insect is to spray insecticides. However, this might soon change. Seven years ago, ICARDA initiated a cooperative project with scientists from the University of Vermont, USA. Major emphasis is placed on biological control using insect-killing fungi.

Progress has been steady and for the first time an extensive field trial has been set up. A few weeks ago, a team of entomologists applied formulated insect-killing fungi to a Sunn pest overwintering site in Esfahan, Iran. The expectation is that Sunn pest adults, which will soon become active and fly to wheat fields, will either become infected and die or take a fungal infection with them. Infection of other Sunn pests before they reproduce in the field would be the ultimate result.

(Source: Week at ICARDA)

NATURAL RESOURCE CONSERVATION AND MANAGEMENT

FARMERS' DAY IN KIBRAY DISTRICT

Under the socio-economic component of the ADB funded project on soil and water management, a Farmers' Day was held at the Uzbek Cotton Growing Research Institute (UzCGRI) on 26 March, 2003. It was organized jointly by the research team of the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME) and the scientists of the UzCGRI.

Twenty farmers from Kibray district attended the meeting. The objectives were to apprise the participants of ICARDA activities, particularly in the area of soil and water management, and also to learn about the problems being currently faced by the farmers. The meeting was opened by Dr.

Jamolkhon Akhmedov, Director, UzCGRI, who briefed the farmers about the on-going research activities in his institute, emphasizing the need for better linkages between researchers and farmers. Dr. Raj Paroda, Regional

sprinkler irrigation, generated considerable interest among the farmers. Dr. Ikramov provided more details on these technologies.

Furthermore, the scientists of TIAME and UzCGRI presented brief reports on "Legislative base for farm establishing under current market conditions", "Modern systems of double cropping" and "Improved conservation tillage technologies". The farmers took active part in the discussion following these presentations. The participants also visited the experimental sites of the UzCGRI, where research on crop diversification and soil tillage were shown. The farmers expressed keen interest in growing legume crops, such as mungbean and soybean, which can improve soil fertility and increase their income. It was agreed to organize another visit of the farmers later during the proper crop growing stage. At the end, all the participants heartily thanked the organizers of the Farmers' Day, expressing their special appreciation to Dr. Raj Paroda for his deep understanding of farmers' problems and for generating very interesting discussion.



Dr. Raj Paroda along with Dr. R. Ikramov (right) and Dr. J. Akhmedov (left) addressing the farmers

onal Coordinator, ICARDA CAC, also attended the opening session. He had an interesting discussion with the farmers concerning their needs for agricultural support and extension services and shared with them some examples of successful cooperation among Indian farmers. Dr. R. Ikramov, Director, Central Asian Research Institute of Irrigation (SANIIRI) informed the farmers about the most promising technologies developed under the ADB-funded project on soil and water management that had been already tested on farmers' fields in Tashkent and Syrdarya provinces. Good results achieved under application of water saving technologies, such as drip and



A farmer Mr. R. Zievutdinov enquiring about water-saving technologies

PROJECT ON CONSERVATION AGRICULTURE IN KAZAKHSTAN IS UNDERWAY

As we informed in our previous issue, FAO initiated a joint project with Kazakhstan and CIMMYT on introduction of conservation agriculture (CA) technologies for crop production in northern Kazakhstan. In 2002, four farms from Akmola and North Kazakhstan provinces were identified for testing and adaptation activities under the project. To ensure a successful start of the field experiments in May, 2003, all preparatory arrangements, including establishment of the project office in Astana, were done during January-March, 2003. Direct seeders and their spare parts as well as fertilizers and chemicals to be used in the experiments, have been purchased from local manufacturers. Also, members of the local project team had a

meeting with a representative of the Ministry of Agriculture of Kazakhstan and leading scientists of the Kazakh Research Institute of Grain Farming, during which a detailed workplan for 2003 has been developed. Accordingly, Dr. A. Bektemirov, Agronomist and Dr. A. Kenzhebekov, Soil Specialist, have visited the identified project pilot sites in Akmola and northern Kazakhstan provinces to conduct monitoring of agro-ecological parameters.

In early May, 2003, six specialists from FAO, Hardi Company (Denmark) and Direct Seeder Manufacturing Factory (Brazil) will visit Kazakhstan to conduct a special training course on conservation agriculture for local farmers.

MEETING WITH NEW COUNTRY DIRECTOR OF ADB IN UZBEKISTAN

On 27 March, 2003, Dr. Raj Paroda, Head, PFU-CGIAR and Regional Coordinator, ICARDA CAC, visited the ADB Country Office in Tashkent and met with Mr. Sean O'Sullivan, who has recently joined as Country Director of ADB in Uzbekistan. Dr. Raj Paroda congratulated Mr. O'Sullivan on his new appointment and wished him all the success. He was appreciative of the importance of ADB support to Uzbekistan, which is focused on facilitation of basic reforms and minimizing the social cost of transition towards market economy and expressed his hope that ADB will expand its activities in Uzbekistan for the improvement of livelihood of the people. Dr. Paroda emphasized on the possibilities for strengthening cooperation between ICARDA activities in CAC and ADB,

based on their common goals of poverty alleviation and economic growth. He also informed Mr. O'Sullivan that this cooperation has started already through an ADB funded project "On-farm Soil and Water Management for Sustainable Agricultural Systems in Central Asia" implemented by ICARDA in the five countries of Central Asia including Uzbekistan. Mr. O'Sullivan expressed considerable interest in this project activities, especially those related to water management and crop diversification. It was agreed to visit some of the project's experimental sites in Tashkent province during the proper crop growing stage. He also assured of his support for the project activities.

TCP ON KARAKALPAKSTAN SUBMITTED TO FAO

The worst drought and water shortage in living memory has affected north-west Uzbekistan over the past two years (2000 and 2001), in particular Karakalpakstan (KK), which is located at the tail-end of the Amudarya River, and includes its delta near the Aral Sea. The area is naturally arid and, with an annual rainfall of only 110 mm, humans, animals and agriculture are almost entirely dependent on the residual flow in the Amudarya River for survival. As crops and drinking water supplies have failed over the two successive seasons, an estimated 500,000 people are presently without adequate food or drinking water.

A FAO mission visited Uzbekistan in January, 2003 to identify specific needs for a project to be supported under FAO's Technical Cooperation Program (TCP). During the visit, the FAO mission visited ICARDA office and discussed the possibilities of future cooperation in Uzbekistan. The Ministry of Agriculture and Water Resources of Uzbekistan, in close collaboration with ICARDA scientists, have developed a

proposal on "Improvement of on-farm soil and water use efficiency in Uzbekistan" with main focus on Karakalpakstan in the first stage. The proposal has been submitted to FAO in March, 2003. This proposal along with the outcomes of the ADB funded project on soil and water management and other findings of the FAO mission have become a base for the current TCP.

The TCP will be implemented by the Ministry of Agriculture and Water Management, Uzbekistan with the technical backstopping provided by ICARDA. Local research institutions and the Ministry of Agriculture and Water Management of Karakalpakstan will also be involved in the project, of which the objectives are to demonstrate appropriate water and soil conservation practices and alternative, profitable and more sustainable forms of agricultural production methods such as conservation agriculture for small private farmers in KK.

LIVESTOCK MANAGEMENT AND FEED PRODUCTION

WORKING "HAND IN HAND" WITH FARMERS THROUGH PARTICIPATORY APPROACH

A participatory workshop was conducted from 19 to 23 March, 2003 in Berlik community, Kazakhstan. It was organized by Ms. Madina Musaeva, form ICARDA-Tashkent office. She was assisted by Ms. Asel Jumagulova and Mr. Sayat Shortan, post-graduate students from the Hohenheim University, Germany, who are preparing their theses on agricultural development in Kazakhstan, being their home country. This workshop was a part of the activities organized under the socio-economic component of the IFAD funded Project on "Integrated Feed and Livestock Production in the Steppes of Central Asia". Initiated during the no-cost extension period of the project, in November,

2002, the participatory research activities aimed to assess the status of inventory and land tenure, farm management, income and marketing, as well as to learn about farmers' perception in relation to the decay of the resource base. It is assumed that the results obtained through these participatory workshops will be used during the second phase of the project as it will be mainly based on a model of adaptive on-farm participatory research that induces community action to exploit positive interactions among farming systems for productivity improvement, farmer participation and improved resource management.

LAMBS OF NEW BREEDS BORN IN UZBEKISTAN

Lambing season for the ewes of non-indigenous semi-fine wool breed which were artificially inseminated in October November, 2002 using the semen of dairy East Friesian and Lacaune breeds, received from USA, is now underway. The details of this special cross breeding program, initiated for reorientation of livestock production to meet market demands, were covered in our previous issue of the CAC News. This program is carried out under the IFAD funded project on "Integrated Feed and Livestock Production in the Steppes of Central Asia", involving the scientists from



Farmer happy with a new born lamb

ICARDA, the University of Wisconsin, USA, the Research Institute of Animal Science, Indonesia and the national livestock breeders from Uzbekistan.

The lambing season started on 16 March and is expected to be over by 15 April, 2003. Out of 557 ewes inseminated, 306 got pregnant (55%). Mr. Sobir Mavlonov, a young scientist from

the Uzbek Scientific Production Center for Agriculture, who monitors the lambing process, and Mr. Mirkhait Mirsaitov (in the photo), the collaborating farmer, say that by now, about 370 lambs have been born and they expect in total around 470 lambs during this lambing season, considering the fertility rate of about 130 per cent.



Young lambs grazing at Boykozon

Strengthening of NARS

RUSSIAN LANGUAGE PLATFORM FOR LIVESTOCK, ENVIRONMENT AND DEVELOPMENT

The Livestock, Environment and Development (LEAD) Initiative is an inter-institutional project with its secretariat in the Food and Agriculture Organization of the United Nations (FAO). This initiative is supported by the World Bank, the European Union (EU), the Ministry of Foreign Affairs (France), German Federal Ministry for Economic Cooperation and Development via GTZ, the Department for International Development (United Kingdom), the US Agency for International Development (USAID), the International Development Agency (Denmark), the Swiss Agency for Development and Cooperation (Switzerland), and the Food and Agriculture Organization of the United Nations (FAO). The activities under this initiative address the issues of management and protection of natural resources as affected by livestock production while alleviating poverty. To improve communication and enhance the relevance of research and development issues relating to livestock-environment interactions, the LEAD Initiative has established a Virtual Centre for Research and Development that operates globally through English, French, Spanish and Chinese speaking language platforms. The philosophy behind these platforms is to enable the global community to access information on livestock and environment interactions that is essential to achieve sustainable rural development.

The collapse of the Soviet Union in the early nineties led to the fragmentation of the centralized system of agricultural research. To restore the links between the scientists working in the area of livestock and environmental management, policy-

makers, planners and extension officers from the Commonwealth of Independent States (CIS), and also to establish the linkages with the international scientific community, the LEAD took initiative to launch a Russian Language Platform. This Platform will serve as a network of knowledge sharing to assist in capacity building, provide baseline information and resource intelligence and increase awareness among key stakeholders in CIS countries and Mongolia. The project is financed by the Swiss Development Cooperation (SDC) and supported by LEAD member organisations. During the initial stage of the Platform's development (from September, 2002 to June, 2003), the main activities included collecting baseline information on critical livestock and environment interactions in CIS countries and Mongolia and liaising with organisations, institutions and development projects to identify potential partners.

You are welcome to visit the preliminary web-site of the Russian Language Platform for the Livestock, Environment and Development Interactions (LEAD): <http://lead-ru.virtualcentre.org>, which has been prepared in Russian and English languages (in future this site will be primarily for the Russian-speaking audience). The Russian Language Platform is seeking for partners who are willing to contribute towards and participate in its development. For more information, please contact Mrs. Svetlana Livinets: lead.ru@virtualcentre.org.

(Source: Mrs. Svetlana Livinets, Platform Manager)



LINKAGES WITH NGOs BEING STRENGTHENED IN THE CAUCASUS

A workshop of NGO on Agricultural Research and Development was held in Tbilisi, Georgia from 31 March - 01 April. It was attended by 33 participants from three Caucasian countries, two non-governmental organizations (NGOs) from developed countries and by representatives of CIMMYT, ICARDA, GFAR and the World Bank.

Dr. Mekhlis Suleimenov represented ICARDA-CAC Regional Program in Tashkent. The workshop was hosted by the NGO "Elkana", Tbilisi and supported by the CGIAR through the NGOs Committee. During the group meetings, participants discussed agricultural research priorities including: soil fertility assessment, biological methods of plant protection, non-

traditional crops and conservation of bio-diversity, and organic farming. It was decided to establish a Coordination Group, which will facilitate an exchange of information between NGOs, create a Regional Forum with participation of all stakeholders, establish linkages with NGOs in Central Asia and with the International Agricultural Research Organizations. The workshop provided an excellent opportunity to compare recent experiences in the three South Caucasian countries and to encourage a dialogue among NGOs and the community of international agricultural research by bringing together NGOs, FOs and agricultural research organizations in the region.

Meetings/Workshops/Conferences Organized

WORKSHOP ON RURAL DEVELOPMENT STRATEGY IN CWANA

The World Bank has developed a new strategy on rural development, which further strengthens the framework outlined in the last Bank's Rural Development Strategy entitled "From Vision to Action" and reflects the conclusions of recent international experience in rural development. The new strategy refocuses the rural development process to concentrate on improving the well-being of rural people and reducing rural poverty in the widest possible sense. In addition, the World Bank plans to initiate a study to assess the global role of science and technology in agriculture. What are the most important issues where science and technology can contribute to the improvement of rural livelihoods and diminish hunger in different regions? This is the question to be answered by the National Agricultural Research Systems and CG Centers as to how to serve the needs of the users of science and technology. In this context, the CG Centers are seeking ways to increase their collaboration with the national research and development institutions, NGOs and broaden their dialogue with the policy makers.

To address above issue, ICARDA through its regional office of the Nile Valley and Red Sea Regional Program (NVRSP) organized a workshop on Rural Development Strategy in Central, West Asia and North Africa, with the support from the World Bank, from 23-26 February, 2003 in Cairo, Egypt. The purposes of the workshop were to find new ways for linking research and development activities in order to advance rural development in the region; assess the congruence of the Bank's strategy and national rural development strategies; assess the constraints to rural development in the region; and consult the regional experts on the need for a proposed assessment of science and technology.

The workshop was attended by around 100 participants, including senior managers from Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan. There were two days of presentations and round table discussions followed by a visit to the Central Laboratory for Agricultural Expert Systems and the Agricultural Genetic Engineering Research Institute, Cairo.

His Excellency Prof. Dr. Youssuf Wally, the Deputy Prime Minister and Minister of Agriculture and Land Reclamation, Egypt, Dr. M. Ayoub, Director, World Bank Country Department, Cairo and Prof. Dr. A. El Beltagy, Director General, ICARDA, welcomed participants, and the purpose of the meeting was outlined by Dr. Richard Thomas, Director of the Natural Resource Management Program, ICARDA. Mr. Kevin Cleaver, Ms. Latitia Obeng and Mr Csaba Csaki presented the latest strategy papers from the World Bank, whereas the regional perspectives were presented by Dr. A. Fardous, Director, AARINENA, Dr. W. Erskine, ADG, ICARDA, H.E. Dr. Anwari, the Minister of Agriculture and Livestock, Afghanistan, and Dr. N. Haddad, University of Jordan.

The workshop reinforced the commitment of all for the rural development. However, it was considered to be a challenge to change the prevailing public perception to overcome the timid commitment of support to research and development from both the developed and developing countries. The very low public expenditure (average 2-4% of the GDP) for rural development needs to be increased to improve the welfare of the rural people. Therefore, the Bank's strategy provides a useful framework for implementation, however, the actual consultation process will commence during the development of national strategies where all the relevant stakeholders including civil society, private sector and farmers will be included. The importance of research and technology is acknowledged but the success will be determined by ability to upscale these research outputs into the wider rural community.

(Source: Dr. Aden Aw-Hassan, Socio-Economist, ICARDA)



Participants of the workshop, Cairo, Egypt

NATIONAL WORKSHOPS ORGANIZED BY IPGRI

As we informed earlier, in August 2002, UNEP-GEF-B phase project on "In situ/on-farm Conservation of Agricultural Biodiversity (horticultural crops and wild fruit species) in Central Asia" has been launched and designed for 16 months. The main purpose of this phase is to verify the PDF-A phase outcomes and finalize the full project proposal.

IPGRI-CWANA office in Tashkent in collaboration with National Coordinators on PGR have organized a series of national workshops held subsequently in Tajikistan, Kyrgyzstan, Kazakhstan, Turkmenistan and Uzbekistan from January to March, 2003. More than 20 specialists in each country - representatives of various agencies and organizations including Ministries of Agriculture, Ministries of Nature Protection, Academies of Agricultural Sciences, research

institutions and educational establishments participated in these workshops.

The participants of the workshops were familiarized with the purposes, outcomes and activities of the PDF-B phase. Discussions covered the aspects of work plan development for 2003, budget allocation and criteria for selection of priority species and pilot sites.

It was agreed to hold the second round of national workshops in July-August, 2003 to finalize the national components taking into account all the recommendations and comments by that time. It is also planned to organize the Second Meeting of the International Steering Committee of PDF B phase in Almaty, Kazakhstan, from 22-23 April, 2003.

(Source: Shirin Karryeva, Regional Coordinator, PDF-B Phase, UNEP/GEF Project)



THE THIRD WORLD WATER FORUM

The world's population is expected to increase from 6 billion today to 8 billion by 2025, yet growth in food production is predicted to slow to an estimated 1.3 percent a year. Shortages in water supplies for agriculture and their inefficient deployment will contribute to a slowdown in food growth. If food production fails to keep pace with population growth, a majority of the world's population could experience a food crisis.

Since water for food and agriculture accounts for 70 percent of world water abstraction, a general water shortage could accelerate the food crisis. Realizing the urgency of the situation, countries have pledged, through the Rome Declaration and the UN Millennium Declaration, to reduce the number of undernourished people by half of the 1990 level by 2015. To meet that target, efforts have been underway through the leadership provided by the Food and Agriculture Organization and the International Commission on Irrigation and Drainage to raise awareness of the criticality of water resources for food production and rural development, taking into account regional diversity, and to work with the identified needy countries of the world in evolving strategies to cope with the challenges.

At the Third World Water Forum organized from 16-23, March, 2003 in Kyoto, Shiga and Osaka (Japan), this theme was highlighted during a series of sessions. Some took a global approach to issues of food security, desertification, and organic farming, and ways of augmenting water availability. Other sessions had a regional focus such as on the arid and semi-arid areas, the Mediterranean Basin, and Africa. The situation in Asia was discussed through a session on the multifunctional roles of paddy field irrigation in the Asia monsoon region. The sessions resulted in a specific action agenda to ensure the adequacy of water supplies and prudent water management for food sufficiency and security in the 21st century.

It has been reported that over 12,000 people participated in the Forum, which motto was "Making water everybody's business".

Water scarcity and its potential adverse consequences for food security in dry areas was the key message delivered by ICARDA Director General Prof. Dr Adel El-Beltagy at the ministerial and other high-level meetings during the Forum. The Director General called for special attention to be given to the

"serious water scarcity situation in the dry areas" to safeguard the food security of the one billion people who live in these areas and ensure "the sustainability of their ecological systems." In his presentation entitled "Sustainable management of scarce water resources in the dry areas, he highlighted ICARDA's role in managing this scarce resource by improving water-use efficiency for sustainable food production. The Ministerial declaration of the Forum reflected the urgency of dealing with water scarcity, adoption of new policies, and the use of cutting-edge science to address the problems. Here are some excerpts from the declaration: "We are determined to increase substantially agricultural water productivity through participatory approaches, appropriate regulations and cost-recovery mechanisms, development and dissemination of research findings, capacity-building and institutional reforms, which are adapted to local climatic, environmental and socio-economic conditions". "We will undertake research and development, including traditional knowledge, to improve the management and availability of limited water resources in water-scarce areas, through improved crops and development of new and non-conventional sources of water for agriculture". "We will continue to make efforts to foster international cooperation and partnerships between and among developed and developing countries, through financial and technical assistance and knowledge exchanges, and to encourage private sector involvement in agricultural water development and management".

Dr. Vilma Horinkova, Director, IWMI-CAC Tashkent office, also participated in the Forum in Kyoto and presented a poster on water conservation practices. Initially, Vilma in collaboration with Iskandar Abdullaev, Specialist on Water Management, IWMI-CAC, submitted a written story to the Committee for "Water Action" competition. From 870 entries, the Organizing Committee selected 150 candidates who were invited to Kyoto to compete in third round in a poster session for the Grand prix of \$50,000. The competition was fierce, but Dr. Horinkova succeeded to be one of the ten finalists. The Grand prix was shared among China, Uganda, and Nicaragua.

(Source: <http://ap.world.water-forum3.com/>; the Week at ICARDA; Dr. Vilma Horinkova, Regional Director, IWMI-Tashkent)

Human Resource Development

ENGLISH LANGUAGE COURSE ORGANIZED

An English training course of 3.5 months was recently organized under the aegis of ICARDA and the CGIAR Collaborative Research Program for Sustainable Agricultural Development in Central Asia and the Caucasus in Tashkent, Uzbekistan. For the first time, the course was organized jointly for the scientists involved in various Program activities



Participants of the English language training course in Tashkent Uzbekistan.

representing different countries from Central Asia and the Caucasus. Among the 34 participants, the scientists represented the countries, such as: Uzbekistan (24), Kazakhstan (2), Kyrgyzstan (2), Tajikistan (3), Turkmenistan (2) and Georgia (1).

Dr. S. Nurmatov, Deputy Minister of Agriculture and Water Management and Director General, Uzbek Scientific Production Center for Agriculture and Dr. Raj Paroda, Regional Coordinator, ICARDA and Head, CGIAR-PFU, attended the closing function and distributed the certificates on 15 March, 2003. Dr. Nurmatov appreciated the efforts of the CGIAR Program for organizing such an important training activity and congratulated the participants on behalf of the Minister of Agriculture and Water Management, Republic of

Dr. Raj Paroda also congratulated the course participants on behalf of the Director General, ICARDA, Prof. Dr. Adel El-Beltagy, and encouraged them to continue learning English language in order to communicate better with the international scientific community and build their successful career.

The trainees appreciated the excellent opportunity provided to them by ICARDA and thanked PFU, especially Dr. Zakir Khalikulov for his personal care and attention, as well as the teachers from the Uzbek Training Company "Business and Staff". They also assured to continue learning English for the benefit of their respective National Agricultural Research Systems.

LEADERSHIP AND MANAGEMENT TRAINING COURSE IN NAIROBI

From 12-14 February, I attended a "Leadership and Management Training Course", which was held for IPGRI staff in the regional office for Sub-Saharan Africa in Nairobi, Kenya. This course was one of the series of similar training courses organized by IPGRI for its staff and national partners in different regions. The purpose of the course was to enhance the skills in leadership, management and general communication.

The course emphasised that good communication with colleagues, supervisors and partners, is fundamental to our work. During training, efficient listening and communication skills were practiced, as well as working as a Team. The instructors showed that the best results (contrary to a common belief) are, in fact, those from Teams which are not necessarily well equipped and well trained in scientific subjects, but have nevertheless a cooperative attitude, share information and build on creative ideas of each member.

While being in Kenya, I had also the opportunity to exchange ideas with colleagues from around the world. As my tasks in Central Asia are related to complementary conservation and use of fruit trees, I held useful discussions on what are the approaches in this complex field in other regions. It was interesting to learn that there are similar ways in conserving fruit tree-germplasm (mostly recalcitrant species) among national programs, and also similar problems in the area of funding for maintaining collections sustainability. Also the discussions with my colleagues revealed that different regions share a common need in the area of priority setting, perceived as a critical issue requiring greater efforts and support.

I trust that this course was very useful to develop better skills in communication, leadership and management which will certainly be of great use in carrying out my tasks in Central Asia. The interactions with colleagues from other regions gave me new inspiration and ideas for my work.

(Source: Heidi Renkema, Associate Expert, IPGRI-CWANA, Tashkent, Uzbekistan)

DIFFERENT TRAINING ACTIVITIES

- ▶ Dr. (Ms.) Tamara Tazhibayeva, senior scientist, Laboratory of Bio-chemistry and Grain Quality, Research Center of Crop Production and Cropping Systems, Kazakhstan, participated in the specialized training course on Molecular Marker Application for Research on Biodiversity organized by ICARDA from 23 February - 6 March at its Headquarters, Aleppo, Syria. During the course the participants got practiced in using molecular markers in identification of landraces and wild relatives of plants; improved their knowledge regarding the structure of genetic diversity, management of plant populations to maintain biodiversity, understanding the processes, dynamics and biological function of biodiversity in natural and agricultural systems and providing effective and informative ways for characterization of plant genetic resources.
- ▶ Dr. Nasillo Bobokulov, researcher from Uzbek Research Institute of Karakul Sheep Breeding and Ecology of Deserts attended the Training Course on "Quality Evaluation and Utilization of Salt-Tolerant Forages", organized by the International Center for Biosaline Agriculture (ICBA) from 22 - 26 February at the Headquarter of ICBA in Al Ruwayyah, Dubai, UAE. The basic concepts related to utilization of salt-tolerant plants and halophytes in agricultural production as well as the topics related to field production and management of salt-tolerant forages were introduced. The participants also improved their skills in methods of forage quality assessment, both *in vivo* and *in vitro*; were trained on practical use and application of relevant instruments and provided with concepts and practical skills in feed composition, using salt-tolerant forages.

Miscellaneous News

JICA MISSION VISITING ICARDA OFFICE IN TASHKENT

A group of experts from Japan International Cooperation Agency (JICA) headed by Mr. Kyojin Mima, Director, Second Program Division, Tsukuba International Center (TBIC), JICA, visited the ICARDA office in Tashkent. During their meeting with the office staff, Mr. Mima emphasized on the JICA's mission in Uzbekistan and Tajikistan, which is to assess the training needs in these two countries, especially in the field of agricultural research and development. He also dwelt upon the achievements under a JICA's five-year human resource development program started in Tajikistan in 1999. Its objective was to assist the processes of recovery and nation-building through human capacity building in order to engage more qualified specialists in the development of social infrastructure and industry in Tajikistan. Thus, over a period of five years, around 500 people from Tajikistan have been trained in Japan.

The staff of the ICARDA Tashkent office briefed the JICA delegation about the major achievements under the ICARDA Program for CAC and suggested some specific areas, where training is critically needed to the NARS of the region.

These are: treated wastewater use, soil and plant analysis, crop diversification, small scale farm mechanization, salinity management, statistical and gender analysis, as well as advanced technologies of wheat quality analysis.

Mr. Mima explained about the mechanism of applying for training, which should be in the form of a request from the Government. He also stressed that JICA has good experience in organizing training in rice cultivation, farm mechanization, irrigation and drainage as well as in statistical and gender analysis and management of water users' associations (WUA). It was agreed that ICARDA office will inform the NARS partners about the training opportunities provided by JICA, so that they could avail of various trainings through their respective Ministries of Agriculture and Water Resources. Finally, Mr. Mima and the members of the delegation expressed their appreciation of the assistance which was already provided to them by ICARDA-Tashkent office, particularly in arranging the meetings with senior Government officials both in Uzbekistan and Tajikistan.

VISIT TO KYRGYZSTAN

From 16-18 March, 2003 Dr. Raj Paroda, Regional Coordinator, ICARDA-CAC, visited Kyrgyzstan. During the visit, he had an opportunity of meeting the Honorable Minister of Agriculture, Mr. Alexander Kostyuk and his Deputy, as well as Head of the NARS, Prof. Asanbek Ajibekov. The Minister was highly appreciative of the support rendered by ICARDA and expressed a desire to have the collaboration with ICARDA more strengthened.

While visiting Kyrgyz Agrarian University, Dr. Paroda gave a lecture on ICARDA Regional Program for Agricultural Development in CAC. The lecture was well attended by all faculty members and senior students numbering around 400. After the lecture, Dr. Paroda was awarded a Diploma for Honorary Professorship of the University by the Rector, Prof. B. Sydykov.

GOODBYE TO DR. VILMA HORINKOVA

Dr. Vilma Horinkova, Director, IWMI office in Tashkent, will be completing her assignment on 31 March, 2003. Dr. V. Horinkova has been serving this region since February, 2002 and earlier, she headed the IWMI office in Pakistan. All the PFU staff and national partners wish her all the success in future.

ADB REVIEW MISSION

The ADB project on "On-farm Soil and Water Management for Sustainable Agricultural Systems in Central Asia" will be reviewed in April, 2003 by Mr. Tumurdavaa Bayarsaihan from ADB. This project is extended presently on a no-cost basis for 6 months, up to June, 2003, and ICARDA has already submitted a second phase project proposal to ADB for consideration.

DR. RAJ PARODA HONORED

Dr. Raj Paroda, Regional Coordinator, ICARDA-CAC and Head, CGIAR-PFU, was recently honored with a prestigious Dr. B.P. Pal Memorial Award and a gold medal, instituted by the National Academy of Agricultural Sciences (NAAS, India) for his singular outstanding contributions in the field of agricultural research and development in India. The Award was presented by the Chief Minister H.E. Digvijay Singh at the Sixth Agricultural Science Congress held in Bhopal on 13 February, 2003, in which more than six hundred scientists from different research organizations in India participated.

Dr. Raj Paroda (first from right) receiving Dr. B.P. Pal Memorial Award from H.E. Digvijay Singh, Chief Minister, Madhya Pradesh. President of National Academy of Agricultural Sciences, Prof. V.L. Chopra and Dr. Acharya, (extreme left) Director, Indian Institute of Soil Science, are also seen on his left.

CGIAR-PFU staff and stakeholders of the CGIAR Program for CAC congratulate Dr. Raj Paroda and wish him all the success in his future endeavors!



REVIEW MISSION VISITS THE REGION

ICARDA has instituted a Center Commissioned External Review mission consisting of a panel of three members. Two members Dr. L. Brader and Dr. M. Roozitalab will be visiting Azerbaijan, Uzbekistan and Tajikistan from 9-18 April, 2003 to interact with NARS scientists and have an assessment of the on-going activities and their impact in the region.

ICBA-ICARDA ORGANIZE A TRAINING WORKSHOP IN TASHKENT

ICBA and ICARDA will jointly organize a training workshop on "Biosaline Agriculture and Sustainable Production Systems" from 12-21 May, 2003 in Tashkent, Uzbekistan. Twenty five scientists from all the five Central Asian countries and Azerbaijan will attend the training program and scientists from ICBA, ICARDA and from within the region will deliver lectures.

INTERNATIONAL WORKSHOP ON EMERGING TRENDS IN PLANT CHROMOSOME RESEARCH

The workshop will be held from 8-11 October, 2003 in Patiala, India. The following themes will be included in the program: techniques in chromosome research; chromosomal analysis of floras, chromosomes and evolution and others. A registration form is available from the CGIAR-PFU-Tashkent office.

INTERNATIONAL BARLEY GENETICS SYMPOSIUM

The Ninth International Barley Genetics Symposium will be held from 20-26 June, 2004 in Brno, Czech Republic and hosted by the Agricultural Research Institute Kromeriz, Ltd. All interested are invited to visit the web site at www.ibgs.cz.

RESPONSE FROM READERS

A regular issue of the newsletter "CAC News" is in our hands. This important publication makes the boundaries between our countries invisible. The newsletter joins the scientists, expresses their common interests with regard to agricultural research for development in the CAC region. The newsletter has held us together and we care about problems of our colleagues, rejoice at their successes and plan our future activities. It is also very pleasant to see familiar faces of our colleagues in the photos and read about their work.

The newsletter has changed looking back to 1999 and comparing with its today's image. The design has got better, colored and qualitative photos are being published. The text is quite neat and understandable to a wide range of readers. The published information contains the essence of the events. Special appreciation shall be addressed to the scientists from our region for submission of so interesting materials for publication. It is clear that our joint efforts cover significant volume of activities including germplasm enhancement, natural resource management, integrated feed and livestock production, conservation of plant genetic resources, human capacity building and several others. It is always interesting to read about important meetings and conferences, which are being highlighted along with their outcomes.

We wait eagerly for the next issue of our newsletter. On behalf of the scientists from Research Institute of Plant Industry, Uzbekistan, I express a special thanks to ICARDA Regional Office, CGIAR Program Facilitation Unit in Tashkent and the Editorial Committee for their useful work and dedicated efforts. We wish them all the success in their future activities.

(Source: Ravza Mavlyanova, Deputy Director, UzRIPI, Tashkent)

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8. "Soil and Plant Analyses Manual" by John Ryan, George Estephan and Abdul Rashid. Russian version. ICARDA Regional office for CAC. 2002, 122 pp.
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10. "Seed Production & Wheat Breeding in Central Asia". Bulletin. Russian version. CIMMYT Regional office for CAC. 2002.
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