Interstate Commission for Water Coordination of Central Asia	BULLETIN № 3 (49)	September, 2008

CONTENT

MINUTES OF 50TH MEETING OF THE INTERSTATE COMMISSION FOR WATER COORDINATION (ICWC) OF THE REPUBLIC OF KAZAKHSTAN, THE KYRGYZ REPUBLIC, THE REPUBLIC OF TAJIKISTAN, TURKMENISTAN AND THE REPUBLIC OF UZBEKISTAN

May 29, 2008 **City of Bishkek**

Attendants:

ICWC members:

Ryabtsev Anatoly Dmitriyevich	Chairman of Committee for Water Resources, Ministry of Agriculture, Republic of Kazakhstan
Yokubzod Saidi	Minster of Water Resources and Land Reclamation, Republic of Tajikistan
Akmamedov Miratgeldi	Minister of Water Resources, Turkmenistan
Khamrayev Shavkat Rakhimovich	Deputy Minster, Head of Central Water Administration at the Ministry of Agriculture and Water Resources, Republic of Uzbekistan

ICWC Executive agencies:

Dukhovny Viktor Abramovich	Director, SIC ICWC, Professor, Honorable ICWC member
Khudaiberganov Yuldash Hudaiberganovich	Head of BWO “Amudarya”
Khamidov Makhmud Khamidovich	Head of BWO “Syrdarya”
Makarov Oleg Stepanovich	Head of ICWC Metrological Center
Negmatov Gairat Abdusattarovich	Head of ICWC Secretariat

Invited:

Matsunami Katsuji	Director of ADB Department
Bekniyazov Murat	Head of Water Resources Committee at the Ministry of Agriculture, Kazakhstan
Kichibayev Araridin Niyzamovich	Chairman of ULC “Kyrgyzsuudolbor”

Diykanov Baysuubek Tinchbekovich	Head of Kirovsk Reservoir Administration
Isabekov Tilek Asanakunovich	Head of Chu-Talas Commission Secretariat
Mamataliyev Nurgazy Patiydinovich	Director, Kyrgyz branch of SIC ICWC
Pulatov Yarash Ergashevich	Director General of GU «TajikNIIGim»
Khanmedov Guvanch	Head of department, Ministry of Water Resources, Turkmenistan
Saparov Usman Bayramklichevich	Deputy Director of "Turkmensuvilimtaslama" Institute
Kuchkarov Sharifjon Zikrillayevich	Head of department, Ministry of Water Resources and Agriculture, Republic of Uzbekistan
Sheraliyev Nurmuhammad Ismanovich	Director assistant, Central Water Administration at the Ministry of Agriculture and Water Resources, Republic of Uzbekistan
Beglov Ferdinand Fatihovich	Head of department SIC ICWC
Chairman:	Koshmatov Baratali Turanovich-ICWC member, Director General of Water Resources Department at the Ministry of Agriculture, Water Resources and Processing Industry, Kyrgyz Republic

Agenda:

1. Adoption of water withdrawal limits along Amudarya and Syrdarya for growing season 2008 and approval of forecasting operation of the cascade of reservoirs (responsible BWO «Amudarya" and BWO "Syrdarya").

2. Adoption of ADB RETA 6163 project documents.

3. Consideration and adoption of draft "ICWC Principles", "Rotation of ICWC agencies and their managers" and Agreement "About strengthening organizational structure of management, protection and development of water resources in interstate sources in the Aral Sea basin".

4. Experience of Chu- Talas joint commission.

5. Venue and agenda of the next 51st ICWC meeting.

Additional Issues for Consideration:

1. Discussion of ADB RETA 6163 project results and a new draft program for 2008-2010 (included at a request of ABR regional office).

2. Development of the regional training network for high and middle level staff in water, energy and environmental organizations in the Aral Sea basin countries on the base of TC ICWC (included at a request of SIC ICWC).

The members of the Interstate Commission for Water Coordination (ICWC) having agreed on the agenda, having heard the reports and exchanged the opinions had decided on the following:

First item:

1. Take into account the water situation in the growing season as informed by BWO "Amudarya" and BWO "Syrdarya".

2. Taking into account critical water situation resulting from water shortage, ICWC members think that it is necessary to meet with energy supply agencies of Central Asian countries as soon as possible for taking measures.

3. Agree on preliminary reduction in water withdrawal limits for the remaining growing season 2008 by 10% for BWO Amudarya objects and by 25% for BWO Syrdarya objects.

Second item:

1. Consider completed activities of the work group concerning development of «Rules for implementation of procedural obligations and recommendations for the improvement of Syrdarya river basin water and energy resources management and regulation rules». Submit the draft «Rules…» to the ministries (departments) of Central Asian countries for approval by July 1, 2008.

2. Consider task concerning more precise definition of water losses in the the middle and lower reaches of Amudarya completed. Approve analytical report. Take values given in the report into account in the future work on Amudarya river management. Change the name of work «Recommendations for setting of norms for channel losses in the middle and lower reaches of Amudarya». Request project ADB RETA 6163 to prepare cycle of annual observations for determining losses under the follow-up activities.

3. Approve developed methodology for elaboration and accommodation of detailed methodological recommendations for accounting basin-wide costs, data collection and assessing actual damage from water use regimes.

4. Finalize inventory of interstate objects in the basins of Amudarya and Syrdarya rivers.

Third item:

1. Consider draft «Principles of ICWC» as agreed-upon.

2. Members of ICWC should make their proposals concerning points 3.2.and 4.5 of the draft «Regulations for rotation of executive agencies and their managers» in a month, and afterwards submit for an approval together with «Principles of ICWC» and an Agreement on «Institutional improvement of executive agencies for management, protection and development of water resources in interstate sources in the Aral Sea basin».

Fourth item:

1. Approve experience of the joint commission for Chu-Talas.

Fifth item:

1. Next 51st ICWC meeting is to be held in Kazakhstan in September 2008.

2. Approve the agenda of the next 51st ICWC meeting.

Agenda

1. Measures taken for growing season and additional measures for its completion (responsible BWO « Amudarya » and BWO «Syrdarya»).

2. Progress in the implementation of SCADA systems on the transboundary water objects.

3. Development of national information systems and their linkage with NGMS.

4. Consideration and approval of draft «Principles of ICWC», «Regulations for rotation of executive agencies and their managers» and an Agreement on «Institutional improvement of executive agencies for management, protection and development of water resources in interstate sources in the Aral Sea basin».

5. Venue and agenda of the next 52nd ICWC meeting.

For the Republic of Kazakhstan	A. Ryabtsev
For the Kyrgyz Republic	B. Koshmatov
For the Republic of Tajikistan	S. Yokubzod
For the Turkmenistan	M. Akmamedov
For the Republic of Uzbekistan	Sh. Khamrayev

CLIMATE CHANGE, WATER RESOURCES MANAGEMENT, GOVERNANCE AND CAPACITY BUILDING ISSUES IN CENTRAL ASIA

The Third Regional Preparatory Meeting of the Fifth World Water Forum took place in Bishkek on 28-29 May 2008, with the participation of more than 200 people from 13 countries. The meeting was hosted by the Ministry of Agriculture, Water Management and Processing Industry of Kyrgyzstan, the Ministry of Environment and Forestry of Turkey, the Interstate Coordination Water Commission of Central Asia and the Global Water Partnership Central Asia and Caucasus. Ministers from Kyrgyzstan, Turkey, Tajikistan and Turkmenistan attended to the meeting. Presentations were made by Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Turkey, as well as by the representatives of the ICWC, EC IFAS, and regional offices of SDC, IWMI and ADB. Roundtable meetings followed by many experts from the countries of the region sharing similar problems were fruitful and provided guidance for managing and protection of water resources to meet human and environmental needs. Many interesting ideas and comments have emerged in this context.

The major points raised in this regional meeting are as follows:

Theme 1: Climate change effect on water resources in Central Asia

Climate change, population growth, industrialization, urbanization and deforestation create huge stress on the water resources of the region.

Glacier melting in the mountainous areas due to the global warming is resulting in floods in the rivers and lakes. On the other hand, glacier melting has supported until now proper additional water resources in rivers, but reducing of volume of glaciers cause expectation that in next 20 years flow of Amudarya and partly some tributaries of Syrdarya and Zarafshan rivers can fail on 25-30 per cent, that will present big challenge to the region.

Understanding the effects of the climate change is central for developing regional and national adaptation strategies. Water storage and integrated water management are important elements in that respect. CO2 emissions should be decreased by using renewable energies, hydro-energy in particular. Re-use of the waste water and utilization of the modern irrigation techniques are essential for water saving. Furthermore, public awareness should be created on the adaptation strategies.

Hydro-meteorological data and information should be collected regularly. Observation and measurement networks should be improved.

Regional solutions are needed for addressing the regional problems such as the desiccation of the Aral Lake.

Theme 2: Basin management and trans-boundary cooperation

The region is relatively rich in water resources, but there are many trans-boundary rivers. However, as it is expected that water stress in the region will increase gradually due to the negative effects of the climate change and pollution, cross-border cooperation is essential in order to address water problems of the region. Main focus is on the access to clean drinking water, irrigation for food security and energy generation.

Trans-boundary dialogue and cooperation in the region for the last 16 years has permitted to avoid any serious conflict for water delivery to different states and zones, even in previous water scarce and flooding years. Nevertheless, the existing cooperation among the countries of the region is not sufficient and must be improved. Although political will generally exists, the lack of understanding and confidence at the technical level is the main barrier to enhance cooperation. Regional program of consensus building dialogues at different levels could be developed so as to merge different views and positions. Exchange of reliable data and information is crucial. Furthermore, international mechanisms should work coherently to strengthen and advance trans-boundary cooperation.

Cross-sectoral interests of hydropower, irrigation and environment requires strengthening of legal and institutional framework of cooperation, same as use of financial tools that would account of sharing benefit, expenses and compensation of damage. This calls for comprehensive basin development plans, which need to be developed with stronger participation of all riparian countries and should be based on IWRM principles. Promotion of regional and sector dialogues oriented specifically towards long-term development of the region as a whole and stronger adherence to agreements by member countries is a must in order to merge different sectoral and country priorities on water use with the interest of society and nature.

The Chu-Talas experience can be taken into account particularly in small trans-boundary rivers. Inter-national Commissions should be established by the riparian states in order to manage trans-boundary water resources in an equitable and sustainable manner. Integrated water management plans could be developed at the basin level. However, good management of water resources at the national level is central at first. All stakeholders should be included in this process and bottom-up approach need to be followed.

Also, the discussions reflected that there is a need for a reliable system of data capturing, information sharing and training based on successfully implemented regional projects improving water management with IWRM, SCADA systems, etc.

It was suggested that “strengthening of international water law” should be a subject of discussion on the 5th World Water Forum."

Theme 3: Water resources governance (organizational aspects of efficient water management)

Water resources management and governance should be reformed in the region. Content and phases of the reform, from the decentralization point of view in particular, is as follows;

- Trans-boundary level (Aral Sea basin, agreements, strengthening of organizations on regional/basin level, ecosystem demands, economical tools – cost and benefits sharing, information exchange, water demand and limitation)
- National level
- Basin level
- System level
- Water users association level

Decentralization of water resources management in line with the economic reforms, mostly in agriculture sector, requires the tools and instruments for all inclusive (states, sectors and stakeholders) and good governance such as;

- Institutions
- Legal and regulatory framework (development and harmonization)
- Economic tools (what is state share and what are the boundaries of responsibility, financial mechanisms – tariffs, subsidies, privilege loans, incentives for water saving and resources protection)
- Technical and technological aspects (hydrometrics, automation, water allocation tools)
- Environmental needs (pollution control, ecological releases, water protection zones)
- Capacity building (equipment, training, including study tours)

Integrated water resources management is an important concept for bridging water users (sectors, states, downstream-upstream), water providers (states, decision makers, sectors) and stakeholders.

Theme 4: Capacity building and education

Training of the trainers is crucial in the region. Furthermore, education of the technical people as well as the women and children is central. Integrated training programs could be developed at the regional level.

Joint and reliable hydraulic and hydrological data bases should be established. Information exchange on the standards ought to be ensured. Technological innovations should be followed regularly. Partnerships can be developed for capacity building. New models and techniques should be applied in order to utilize water resources in an equitable way.

Strengthening regional cooperation, particularly in the Aral Sea Basin, could include the following;

- Institutional and legal aspects
- Training activities
- Information systems and data base
- Integrated water resources management
- Introduction of the automation systems
- Modeling tools for decision support systems

Furthermore, public awareness and concern on water issues should be created. NGOs involvement and media attraction are essential to this end.

THE INTERNATIONAL CONGRESS "ECWATECH-2008"

The biggest Water forum in Eastern Europe organized every two years - "ECWATECH-2008" - was held on 3-6 June, 2008, in the International Exhibition Center "Crocus Expo" in Moscow. Traditionally Forum consists of 2 components: Exhibition and Congress. This enables to combine effectively the demonstration of advanced technologies with the discussion of issues, where key actors of the sector are involved.

The ECWATECH organizers:

- The Ministry of Natural Resources of the Russian Federation
- The Ministry of Regional Development of the Russian Federation

- The Federal Agency for Water Resources
- The Federal Agency for Construction and Housing Utilities
- Russian Academy of Sciences
- Russian Association for Water Supply and Water Disposal
- “Mosvodocanal” (Moscow Waterworks)
- “Vodocanal of St. Petersburg” (St. Petersburg Waterworks)
- Eurasian Water Partnership Co Ltd
- SIBICO International LLC
- ECWATECH LLC

More than 800 companies represented their modern achievements in the municipal, industrial and agricultural water supply, water treatment, water disposal, water bottling, materials and equipment for construction, operation and repair of water facilities, devices for automation and control, information technologies.

On the Opening Ceremony, Mr. Fauchon (President of the World Water Council), Mr. Khamitov (Chief of the Russian Federal Agency for Water Resources) and some other officials welcomed the participants.

The Congress events included:

- Conference: 110 Anniversary of Moscow's municipal sewerage system: prospects for sector development in XXI century
- Conference: 150 Anniversary of "Vodocanal of St. Petersburg" (St. Petersburg Waterworks)
- Conference: Integration of water use and water disposal sectors into market economy: Infrastructure investments and management. Organizer: Eurasian Water Partnership Co Ltd
- Session: Wastewater treatment and disposal
- Session: Water supply
- Round Table: Water supply and water treatment for industry and energy sector
- Session: Automation, energy-and resource-saving and information technologies for water sector
- Session: Fresh groundwater resources and their exploitation
- Session: Monitoring and management of water bodies
- Round Table: Information technologies for water resources monitoring and management

- Session: Water and health
- Session: Bottling and bottled waters
- Session: Water quality control and analysis methods
- Round Table: Energy- and information- technologies for water treatment: physics of the phenomenon and the biological properties
- Seminar: Principles of calculation and design of pumping stations and treatment plants with submerged equipment. Organizer: Water Supply and Water Disposal, LLC
- Seminar: Industrial chemical control for water treatment and disposal systems. Organizer: ECOINSTRUMENT, LLC
- Seminar: Energy-efficiency of Hauden turbo-compressors in the water treatment systems. Organizer: Hauden Ltd.
- Seminar: Modern equipment for wastewater treatment and sludge processing. Possibilities of optimization for functioning of biological treatment plants. Organizer: VODACO
- Seminar: "Trenchless technologies. Foreign experience". Organizer: KAPSTROYTRUST, LLC.
- Seminars of the EKODAR Company (admission by invitation only)
- Seminar: ECOMIX "5-in-1" - Multipurpose filtering bed for simultaneous water softening and removal of iron, manganese, organic matter and ammonium. Organizer: ECOSOFT
- Seminar: "SteinzeugKeramo" - a leader worldwide on production of pipes and water disposal systems". Organizer: "Steinzeug Abwasserungssysteme GmbH"
- Seminar: "Traditional ways and innovations on water treatment for heat power plants". Organizer: ECOTECH Ltd.
- Seminar: Review of production programme for small circulating pumps with wet rotor. Organizer: WILO RUS Ltd.
- IWA Regional Conference - Membrane technologies in water and waste water treatment
- 26-th International Conference on Trenchless Technologies "NO-DIG 2008 Moscow"
- Conference "Water Resources Systems Management in Extreme Conditions"

Central Asia was represented by delegation from Kazakhstan that demonstrated a special stand dedicated to the success in water supply development in Kazakhstan. On behalf of the SIC ICWC, papers of V.A. Dukhovny and A.G Sorokin were

presented at the conference "Water Resource Systems Management in Extreme Conditions". The representatives of the SIC ICWC - V.A. Dukhovny, A.G. Sorokin, P.D. Umarov, G.V. Stulina and I.F. Beglov – also presented papers at the session of the International Network of Basin Organizations (INBO).

More information about those and other papers on the INBO website:
www.inbo-news.org/euro-riob/moscow2008.htm

INTEGRATED WATER RESOURCES MANAGEMENT IN FERGANA VALLEY (PHASE IV 01.05.2008-31.12.2010)

Since 2001, Swiss development and cooperation agency (SDC) is supporting water sector reforms in Central Asia. Financial support of the project Integrated Water Resources Management in Fergana Valley is one of the most significant contributions by SDC in the region. The main aim of the project is to enhance efficiency of water resources management in Fergana by institutional reforms in an agreement with the principles of Integrated Water Resources Management. The project is being implemented in Kyrgyzstan, Tajikistan and Uzbekistan.

Project completed its three phases in May 2008. Eight-month initial phase showed (2001) that government support of downstream irrigation systems had weakened in Central Asia; increasing number of farmers as a result of land reforms has led to institutional problems in water management, and ineffective management methods are keeping productivity below the potential level. For the solution of current problems the project has developed and conducted institutional reforms in order to assist water allocation, focusing on the requirements in accordance with the principles of IWRM. During the second phase (2002-2005), main approaches, implementation structures and methodologies of IWRM had been tested and accepted in three pilot canals of Fergana valley. The project has established joint canal management organizations with the aim of managing water along the hydrographic borders, as well as WUA, which used down-up approach of social mobilization, and determined potential productivity level of soil and water. During the third phase (2005-2008), the tested IWRM principles have been improved, combined and generalized for mass distribution through trainings and capacity building, effective cooperation with policy-makers, other projects and colleges and extension services; moreover they were implemented in two pilot sites of TSR. For the benefit of water users and their involvement in water management, the project is complemented with ongoing project on Canal Automation. The key objectives of the project include automating major water infrastructure, equipping with automatic water meters and data transmission facilities in the chosen canals for increasing transparency, improving information exchange and creating confidence among water users.

During the fourth phase, institutional, organizational and managerial approaches of IWRM that were developed and tested in the pilot canals, in the fields under their control and TMP will be accomplished, integrated and put into operation. A draft proposal was distributed among interested parties of three countries. Stakeholders' meeting was held on February 3-4, 2008 in Tashkent for considering the proposal for the fourth phase with the participation of representatives of three countries, SDC, SIC and IWMI. It is expected to finish all work related to IWRM in three pilot canals, eliminating shortcomings observed by project executives, SDC, consultants and external assessment during current phase. Gained experience will be used to implement IWRM in other districts of the region and upscale it to the basin level. The project will develop realistic strategies for upscaling and capacity building, with essential impact assessment systems for further distribution in other regions of Fergana valley and three countries. A group of experts with adequate professional stuff will be organized in each country for supporting government efforts in promoting IWRM on the national level and reorientation of water allocation on the basis of requirements. Special attention should be paid on economic stability of IWRM organizations, questions like «who should pay for what» and solvency of agricultural and other water users. During this phase it is planned to promote general vision of roles and tasks of IWRM organizations from CM to WUA/CWU under guidance of each three countries and in coordination with other donors. Joint commissions will be set up for two transboundary rivers as a negotiation platform for TSR water resources management in accordance with IWRM principles. In each country combined field teams headed by national managers will be responsible for planning and implementation of project in the framework of YOP and under the guidance of IWMI/SIC experts.

For maintaining significant progress and successful experience obtained during last phases, it is planned to commit implementation of the project to the same consortium of partners — the International Water Management Institute (IWMI) and the Scientific-information center ICWC (SIC ICWC). The project implementation partners will establish cooperation with governments and donors for coordination and combination of main aspect of IWRM.

ICWC will still be operating as a coordinator of current phase. However, unlike other phases national governments will play more important role taking greater responsibility for project through their ministries.

PROJECT «WATER PRODUCTIVITY IMPROVEMENT AT PLOT LEVEL IN CENTRAL ASIA »

Water is not only a key element but also a vital resource in Central Asia in terms of two main aspects: water for food and water for life. In industry water also gains high significance in the region, and sufficient amount of water is necessary for supporting water cycle, ecosystem integrity and for regeneration of this resource. As a result of boosting population, climate change and global warming and subsequently melting glaciers, competition among mentioned water uses is continually growing. Therefore, since 2000 until now, appropriate water management and in particular Integrated Water Resources Management (IWRM) has been in the focus of Swiss cooperation strategy in the Central Asian region for 2007-2011.

Inefficient water management has led to unreliable, inadequate and inequitable water allocation, excess water usage, and considerable losses and consequently to waterlogging and large amounts of drainage flow which only worsened the situation. Most of the time irrigation methods employed in farms are very wasteful: thus, many fields suffered as a result of an overwetting, waterlogging, and salinization. It means that water crisis is the result of inefficient water guidance rather than shortage of water.

To counterbalance many different methods of land use which appeared after the collapse of Soviet Union, the main aim of IWRM-Fergana financed by SDC (Swiss development and cooperation agency) became to create institutional and organizational prerequisites for transparent, reliable, demand-driven water distribution and delivery to farms or fields. This implies a transition from command-administrative territorial system to demand-driven system in accordance with hydrographic principles. Increasing reliability in getting irrigation water causes a confidence in timely delivery, and has already contributed to a decrease in over-irrigation and loss of water as a result of leaking and surface outflows.

Because of lacking both knowledge and resources, farmers are still dealing wastefully with on-farm and field water which is leading to low yields. The more water is used wisely the less are negative effects of over-watering, such as water-logging, excessive drainage outflow, and salinization.

Not enough attention has yet been paid to water saving and its productivity at field level. The followings are considered as main shortcomings: inadequate land leveling, excessive field sizes and furrow lengths causing over-wetting and outflow at the beginning of the field and water shortage at its end, low concentration on crop water requirements, as well on soil water capacity. Some of these deficiencies are related to mechanized interseasonal operations, lack of personnel and low economic incentives.

Besides, in CA countries information about crop water requirements is still based on the old views and usually does not consider current situation of water shortage and

use of water for environmental needs. Hence, it is necessary to update this information based on the data for crops, soil, and climate conditions for variety of agroecological zones. Farmers' fields are rarely leveled, moreover location of fields does not meet soil conditions and water flows in the point of farm household. So, changing field boundaries and furrow distribution, as well as land leveling are considered as main aspects of water loss minimization and immediate improvement of water productivity.

Recently, first works in the sphere of water productivity at field level have been carried out under IWRM project. Consortium of SIC/IWMI (Interstate Commission for Water Coordination and International Water Management Institute) that implemented project was concentrated mainly on applied research, as a result of which objective evidences became available. However, IWRM project mainly focuses on institutional, organizational, and managerial aspects connected with reliable, timely and adequate water supply of farmers. Field level work acted as supplementary to the assessment of water supply stability impact on water use and crops. For effective use of water conservation potential, accumulated by IWRM project, it is necessary to concentrate on effectiveness and productivity of water at field level within separate initiative.

Thus, given project is a logical continuation of work at field level implemented under IWRM.

During the initial phase started from April 1, 2008, SIC and IWMI should fulfill tasks focusing on the following aspects:

- Database on current water use and productivity at field level by crops and farm sizes launched by SIC/IWMI, at the same time promote best water management practices through trainers;
- Existing research and educational materials for improving water productivity at field level in CA;
- Following gaps should be addressed in the main phase in the spheres of: 1) relevant knowledge; 2) conditions of technical adaptation; 3) socio-economic situation (allocation of jobs differentiating by sex and work effort tendency; availability of labor resources and qualifications in light of feminization in agriculture; cost-benefit analysis, incentives and so on)
- Applicability of existing strategies and education approaches and also appropriate partners for disseminating results in each country
- Strategy and institutional framework, engaging potential partners for the main phase (phase 2)
- And, to achieve the following results:

1. Improved database on water productivity at field level and dissemination of modern methods of water management through IWRM project initiated education is continuing

2. Situation/deficiency analysis have been made

2.1 Data regarding current situation and methods (including existing research and educational recommendations and international regulations) has already been collected, systemized and compared

2.2. Impediments (technical, labor, and socio-economic) and limitations are analyzed and confronted, particularly, role and potential impact on women.

3. Educational strategies, tools and materials for the improvement of water productivity at field level are examined, and perspective partners are assessed.

4. Involvement of potential partners and organizations into the system and using their potential for attaining expected results

Naturally, work phase should be planned based on information extracted from initial phase, and clearly define the scope, strategy and tools that are main components of the problem, search and approval of solution, training and distribution of valuation cycle results in the following spheres:

- Determining needs of farmers and their connection with on-farm/field research
- Effective on-farm water use, that is concentrating on current knowledge and experience from water conservation methods at field level, for instance, variety of activities on water allocation, land leveling, hotbeds and optimal field and furrow layouts
- On-farm and adaptive field «research» on water conservation techniques with the use of drainage pipes, drip irrigation, and so on and restoration of land productivity (drainage, salt leaching, biological agents). The project will assess acceptability and applicability of new methods from technical and labor point of view, and also financial competence of given farm and makes a marketing research. As changing methodology usually does not reflect labor and gender issues, they will be considered in detail.
- Dissemination of tested options and methods through existing training structures, for which educational material and guiding principles should be prepared. Thus, the most important thing is not creating training system but generating knowledge and building capacity in irrigation at field level and distributing among available institutions, in connection with water allocation, planning and water supply, land restoration/drainage and agronomy.

Since the project can hardly be able to work with all farmers and cultures, it is required to prioritize them and beneficiaries from the point of increasing water productivity and raising crop yields.

The project should have regional scope and work on issues of on-farm water management in three targeted countries, which are Uzbekistan, Kyrgyzstan, and Tajikistan, taking into account the different situations in these countries. Privatization in agriculture and liberalization of agricultural markets is finished in

Kyrgyzstan. In Tajikistan it is partially completed, so agriculture is struggling with difficult command system and high level of cotton growing obligations. The progress is also limited in Uzbekistan as well, with wheat and cotton –cultures which are grown compulsorily and sold to the government. This implies that the possibilities for improving water productivity at field level will differ respectively among countries, by agricultural land sizes, crops and so on.

Moreover geographical scope should be properly assessed, taking into account methods of coverage, scale of influence and interaction.

WHAT ARE THE WAYS TO RESOLVE WATER PROBLEMS IN SYRDARYA?

V.I. Sokolov

What are the authors of the position of Open Joint-Stock Company "Electric power stations" of the Kyrgyz Republic published by KABAR on July 30th, 2008 mistaken about and what are the ways to resolve water problems?

I would like to note that the mentioned publication was just another failure to answer to the problems raised in the article by Shavkat Khamraev, the Deputy Minister of Agriculture and Water Resources of Uzbekistan, published in "Pravda Vostoka" newspaper on July 26th under the title of "About the issue of interstate cooperation within the basin of Naryn-Syrdarya Rivers" and the problems touched upon in the interview with V.Sokolov, the Deputy Director of SIC ICWC published by Information Agency "Fergana.ru" on July 13th.

First of all, I would like to note that in the mentioned above article by the leader of Uzbekistan's watermen and in the interview with a regional organization's expert, the "target" be criticized is not Kyrgyzstan (as the authors of the position think) but numerous apologists of unauthorized actions of Kyrgyzstan's power men, who have been attempting to take upon the right to be owners and dictators themselves of water management within the Syrdarya River Basin for recent 10-12 years.

Why is the attempt of the authors of the position unsuccessful? Because the mentioned publication misrepresents many provisions of international and regional legal documents for water resources. Toktogul reservoir has never been constructed for irrigation and power supply purposes (as the authors of the position stated). The resolution of the State Trial Board for Toktogul Hydroelectric Station which was approved by the USSR Government in 1987 states that "The primary function of Toktogul hydrosystem is construction of a reservoir for over-year compensatory regulation runoff in the Naryn River to increase a level of available water supply for irrigated agriculture within the Syrdarya River Basin. The hydrosystem operation for power supply purposes is incidental". SIC ICWC has always opposed the

attempts to mix power needs and water releases for irrigation as power resources are commercial goods but water itself is a natural and social benefit providing human rights to life, food, use of nature and its protection. Moreover, this does not correspond to international right, which, in particular, Article 6 from Helsinki Rules, 1996, states that "use or use category gives no preferences to any other user or specific use". The authors of the position again put forward the idea that the downstream countries within the Syrdarya River Basin do not want to take into consideration the expenditure Kyrgyzstan incurs to operate Toktogul hydrosystem and cascade of Naryn HEPS. In addition, practically all the publications and reports appeal to international codes about cost sharing to operate waterworks facility located on shared waterways. However, at the same time, Kyrgyz side rejects all other postulates of international conventions and documents regarding transboundary (either international or shared) water sources, primarily, about non-causing damage to riparian countries.

It is necessary to analyse what expenditure Toktogul and Naryn cascade incurs and in the name of whom this expenditure is made. The aspiration of the Government of Kyrgyzstan for maximum satisfaction of power needs in the country through hydropower generation is understandable given that there are no own gas and oil resources and coal resources are located inconveniently. Similarly, the aspiration of the Kyrgyz Republic to develop hydropower by constructing Kambarata HEPS upstream of Toktogul is understandable. However, in accordance with the mentioned above international codes, the satisfaction of any country's needs for any deficit strategic resource should imply both increasing this resource and using it rationally, taking into account the interests of riparian countries sharing this resource. Low prices for Toktogul hydropower resources (the cost price is less than 1 US cent per 1 kW/h due to cheap capital stock received from the soviet period) instigated the Kyrgyz power men to get the maximal commercial advantage from the maximal hydropower generation regardless of the neighbors' demand for water. At the current regime of winter releases considerably exceeding summer ones, Toktogul hydroscheme operates to the detriment of irrigated agriculture, and the unwise handling of the cascade of downstream Naryn HEPS' (for some reason, power engineering specialists regulate the releases regime to neighbors through the last Uchkurgan HEPS by stopping it at night for technical preventive measures) damages ecology when there is no water in the river channel for hours. Continuous changes in water discharge in the river during a day (by increasing the releases through turbines during peak hours and considerably decreasing them during inter-peak periods) damage the operation of downstream intake structures. Here are some facts: winter discharge downstream of lower Uchkurgan HEPS increased 4-5 times since 1995 in comparison with the norm, and in 2008 it achieved 1000 m3/s making the downstream countries take efforts to prevent emergency situations. During the period from 1992 to 2008, 40.7 billion m3 of water was discharged into Arnasay lakes forcedly, i.e. lost for further use. In addition, the environmental damage in Kazakhstan and Uzbekistan exceeded 40 million US dollars. What compensation could be talked about for the Kyrgyz Republic from the downstream countries in such situation?

The newly published position of "Electric power stations" does not imply anything new and again calls neighbors to resume the Framework Agreement of 1998 supposedly to fill "legal vacuum". The authors of the position state that the regime of the Agreement was successfully applied by the countries during the period from 1995 to 2003. One more time, here are some facts for disproof. From 1995 to 2008, Uzbekistan delivered 4531.2 million m3 of natural gas (or 94% out of the agreed volume) and 2340.6 million kW/h of power (or 91% out of the agreed amount during the period from September to May) to the Kyrgyz Republic. During the same period, 9692.7 million kW/h of power (or 79.6 % out of the agreed volume) was purchased from the Kyrgyz Republic. However, the Kyrgyz Republic did not give the remaining 2548 million m3 of water in 1998 and 555 million m3 in 2000 against comparison with the agreed volumes during the summer months. Having signed the Agreement, Kyrgyz party, under the influence of the commercial interests of the power men, constantly required to raise prices for hydropower that caused objections of other parties of the Agreement. Consequently, signing of annual protocols was delayed. The constantly raising commercial interests of the Kyrgyz power men have compelled Uzbek party to stop the fulfilment of commitments on the Agreement since 2003.

It should be noted that water scarcity in 2000-2001 was greater than that we are observing in 2008. However, previous water scarcity was overcome rather easily due to the coordinated efforts of ICWC bodies and power men. Mistakes occurred during the following high-water in 2002-2006. The Kyrgyz power men bear responsibility for those mistakes, and the latter are the consequences of present situation within the Syrdarya River Basin. Annually Naryn HEPS cascade released 6-7 billion m3 more water than required for own needs of the Kyrgyz Republic. Thus, in winter it was enough to release 7-7.5 billion m3 of water from Toktogul in order to cover own needs but actually 8.5-9.7 billion m3 above needs, including up to 5 billion m3 in summer were released. The Kyrgyz power men supplied the generated power surplus at commercial prices to Kazakhstan and Russia.

Exactly the actions of the Kyrgyz power men and rejection by officials of international norms regarding transboundary character of the Syrdarya River Basin led to "legal vacuum". Here are two more facts to confirm this impartial point. One of the key provisions of Nukus Declaration of the Heads of Central Asian States (September 20, 1995) "On recognition of earlier signed and effective agreements, treaties and other normative acts regulating relations concerning water resources" has lost its applicability due to the actions of the Kyrgyz power men. Similarly, the key thesis "… on adherence of the coordinated order and rules for water resources use" has lost its applicability in the Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Uzbekistan, the Republic of Tajikistan and Turkmenistan "On cooperation in the sphere of shared use and protection of water resources in interstate sources" (Almaty city, February 18, 1992).

Where are ways of resolving water problem within the Syrdarya River Basin? There is a hint in the published position of Open Joint-Stock Company "Electric power stations" of the Kyrgyz Republic!!!

The main point is to overcome unwillingness of the Kyrgyz power men to use the model mentioned by them that existed during the Soviet period: generated in summer electric power during irrigation water releases for downstream countries should be compensated in winter with the same electric power quantity from shared regional resources.

This scheme could be kept even now but with one distinction: Uzbekistan and Kazakhstan should compensate electric power with neither gas nor coil but exactly with electric power in the same quantity and at the same price each country in appropriate proportion. This model could exclude current, not always acceptable claims for prices (8 US cents per 1 kW/h) and quantity of fuel resources (having specified this aspect as separate subject of interstate economic relations), and prices for electric power as well. That is to apply the following principle: the same quantity of electric power produced in summer should be returned at the same price in winter. On May 16, 2008, Professor V.A. Dukhovny, Director of SIC ICWC, proposed this option which was supported by all the participants except the power men at the meeting in the Ministry of Power Engineering of the Kyrgyz Republic in Bishkek.

I would like to pay attention to one and not the least factor: not only farmers and the nature of Uzbekistan, Tajikistan and Kazakhstan suffer from "commercial tricks" of the Kyrgyz power men but also peasants of the Kyrgyz Republic within the Fergana Valley. During the last month (July 2008) actual water supply for agriculture needs within the site from Toktogul to Kayrakkum averaged only 49.2 %. In addition, the Kyrgyz area of the territory received 62.7 % out of needs on average, Tajikistan – 54.3 %, Uzbekistan – 47.8 %. What good thing have the Kyrgyz power men done to their farmers?

OUR COLLEAGUE AND PARTNER ON MANY PROJECTS APPOINTED INTERIM DEPUTY DIRECTOR UNESCO-IHE[1]

Joop de Schutter, until recently head of the Water Engineering department at UNESCO-IHE, was appointed Interim Deputy Director in November last year. Maarten Blokland, former Deputy Director, decided to return to his previous position as Associate Professor in the Management and Institutions department. Joop de Schutter joined UNESCO-IHE in May 2003, coming from a research and consultancy firm with a focus on policy analysis for integrated water resources management and integrated coastal zone management. He has broad experience in the implementation of projects in the water and environment sector. His work as head of the Water Engineering department focused on integrating many new and young members of staff into the team (including 3 new professors) and supporting the operations of the Water Engineering cores. As Interim Deputy Director, De

[1] Interview with Joop de Schutter appointed interim deputy director

Schutter takes on management and representation tasks with emphasis on the relations with the Dutch Government and on partners in the Dutch and international water sectors. He is a member of the board of Delft Cluster, NWP, NCR and NCK and is further responsible for the implementation of the special agreements with, for example, the Dutch Ministry of Transport, Public Works and Water Management and the US Army Corps of Engineers. In addition, he will remain involved in some UNESCO-IHE projects, including the Nile Basin Capacity Building Network (NBCBN), Water Data Banks in the Middle East and the cooperation with the Scientific Information Centre of the Interstate Commission for Water Coordination in the Aral Sea Basin.

What recent achievements of UNESCO-IHE would you highlight?

The Institute is making good progress, both in content development and adjustment of the Institute's structure towards a changing business environment. We have some ongoing high quality research projects with good potential for the future, and we have just delivered a strategic plan, business plan and action plan following the evaluation by the Dutch authorities (our host Government). This means that the Institute knows where it is going from here.

What are the main challenges the Institute faces in the coming two to three years?

Without a doubt, the main challenge now is whether or not UNESCO-IHE will be able to implement the business plan and change the organisation according to the framework of the "Global Partnership for Water Education and Research", as we have named it. The challenge is to make us all understand what this is and why it is necessary, and to be united to make it happen.

The Institute is committed to strengthening its partnerships and to reach further with its education and research activities. How will this be shaped?

The way towards the future UNESCO-IHE is through the implementation of the global partnership, where the Institute increasingly works with and through partners. This is stated in the strategic plan and in the Programatic the right people in place to implement the programmes, the job will be done.

What will UNESCO-IHE expect from the partners under this new partnership, and what can they demand from UNESCO-IHE?

Partners are going to see UNESCO-IHE intensify cooperation by sharing much more education and research work. There will be more joint programmes, joint modules and joint training programmes. We will do more research with partner institutions and assist them in raising the quality of work. The Institute will increase its capacity for standard setting and guidance to both our internal programmes and our international programmes implemented with partners. We will see further development of credit points exchanged with partner institutions on the basis of

shared and mutually validated and accredited programs. UNESCO-IHE will work on the development of the "Global Partnership for Water Education and Research" brand as a sign of quality to the benefit of our students, the Institute and our partners.

How will this re-define or re-shape the Institute's relations with its students?

The future UNESCO-IHE will serve students who come to us with a larger need for flexibility in both the MSc programme they want to follow and in the financial support they require. Credit points earned elsewhere and sometimes through distance learning will mean that in two different places) and as part of joint projects. All this will require much more flexibility in the financing of our students and research fellows, and this is precisely the subject of our current discussions with stakeholders and financiers, including the Dutch Government.

What, in your opinion, is the key element for a successful UNESCO-IHE?

The key factor for a successful UNESCO-IHE lies in how well the Institute is able to respond to the expectations of our main stakeholders and financers, because they are currently supporting the Institute on the basis of very specific objectives and conditions. The key evaluation criteria after the next five years will be how much the Institute is doing with how many partners and at what academic level. At the same time, we need to consolidate and even strengthen our position and relevance in the water sector. In addition, the Institute needs to further integrate with partner organisations within UNESCO. To this extent, the Institute is busy formulating its contribution to the UNESCO Work Plan for Tertiary Water Education, which will be implemented in the framework of the Decade for Education for Sustainable Development.

What would you like to contribute to UNESCO-IHE in your time as interim deputy?

During this period we will see both a change of leadership and a change of structure and operations at the Institute. I have been quite heavily involved in the preparations that must lead towards this new situation. I would be happy if by the time we welcome our new directorate we are well underway with the implementation of all these plans so they have an easy start and so we can concentrate on the continuation of the good work and reputation of this Institute.

DROUGHT AND DESERTIFICATION ARE COMPLEX PROBLEMS HAVING NO LIMITS

On May 29-30, 2008, second seminar on preparation of Terms of Reference for a regional Center for Drought Management in Central Asia was held in Bishkek. Representatives of Kazakhstan, Kyrgyzstan, Uzbekistan, and also representatives of international organizations - Secretariat of the UN Convention to Combat Desertification (UNCCD), OSCE, the World Meteorological Organization - participated in the seminar. The aims of seminar were a discussion and an approval of the ToR for the regional Center for Drought Management in Central Asia and adopt declaration about intentions to launch the Center.

The meeting was opened by the Secretary of State of MAWR PI KR, National coordinator of UNCCD in the Kyrgyz Republic Kambarali Kasimov. In his speech he emphasized that drought is a normal and repeating feature of the climate and it occurs in all climatic zones. In some countries like in Uzbekistan, Kazakhstan, Turkmenistan, it is observed more often, whereas in other countries it is less usual phenomena such as in Kyrgyzstan and Tajikistan.

Drought might start any time, continue indeterminate time and may rich serious level of severity for agriculture and food safety. In the end it may cause hunger and population migration from native places.

People who live in affected by drought regions are doomed to combatting desertification, mitigating consequences of drought.

Drought and desertification are complex problems having no limits and thus require joint efforts and strong cooperation of countries and international communities.

After that deputy of executive secretary of UNCCD Mr. Gregor de Kalbermatten and senior economic adviser of OSCE secretary Mark Baltes greeted the participants with welcoming speech.

They emphasized that during the last decades economic and social impacts of desertification have been much severe in Central Asia. Desertification and drought touch stable development in Central Asian region through their interrelationship with critical social problems such as poverty, population health and food, migration related problems, caused by resettlement of people and demographic dynamics. Furthermore, as is expected water supply problem in the region will get tougher as a result of melting glaciers and climate change.

Owing to their dry climate and continental location, all Central Asian countries are severely exposed to meteorological drought. Central Asian climate depends on Siberian (Asian) anticyclone brought by plains in the north of the region. Humidification from the Aral Sea side is reducing with its decreasing size. Except mountainous territories, where precipitation is more than 1000 mm, most of Central Asian part experiences deficit of moisture. In some desert areas, number of days

with relative humidity of less than 30% reaches 200 days, whereas in the foothills and mountains this number reduces down to 125-180 days. Availability of water resources is changing noticeably. Even in normal years water supply is limited in all Central Asian countries. Five Central Asian countries i.e. Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan are members of the Convention and so they are obliged to fulfill UNCCD requirements for Asian countries under Regional Enclosure. All the five countries have prepared National Programs of activities (NPA) and subregional program of activities for combatting desertification in Central Asia (SRPD/CA), in which drought mitigation is the main issue.

In 2007, Spanish authorities of organization of safety and cooperation in Europe (OSCE) chose key appeals to guarantee ecological safety and stable development in the sphere of OSCE: land degradation, soil pollution and water reserves management» for agenda for the 15th Economic and Ecologic Forum of OSCE .

Discussions on the 15th OSCE forum underlined the Center for drought management in Central Asia as an essential element for guaranteeing meaningful drought management in the region, thus promoting cooperation and guaranteeing ecological safety in the region. Establishment of the Center for drought management in Central Asia will play a key role in guaranteeing coordination and cooperation between public environmental agencies and ministries, meteorological organizations, scientific communities and other actors of sustainable development.

During the second meeting in Bishkek there were discussed and determined functions of the future center for drought management in Central Asia. The center's targets are to serve as a coordinating and consulting agency for drought, monitoring, prevention and mitigation of drought in Central Asia.

Objectives of the center are to strengthen and ensure in the context of UNCCD, readiness to drought, its monitoring and management, by developing national and regional strategies for drought in member countries, improving synergy of related UN conventions including Framework on climate change, Convention for preserving biodiversity, in issues related to droughts as well as their impacts on transboundary ecosystem safety.

Expected results from the Center:

a) Development of long-term local, regional and interstate transboundary cooperation in the sphere of drought management in Central Asia, particularly for drought forecasting, monitoring and early warning;

b) Activization of drought activities with the attraction of innovative teams from different agencies and organizations and also broad possibility of obtaining information stored in some department archives concerning droughts;

c) Exchange of information regarding drought, publications, products and consulting among members of the Center;

d) Distribution of drought concerning information and elaborations to all interested targey users and organizations.

At the end of the meeting, the Terms of Reference of the Center were approved, moreover, ministerial Declaration proposing establishment of the Center for drought management in Central Asia was prepared for signing.

SEMINAR "DEVELOPMENT OF NATIONAL INFORMATION SYSTEM IN THE REPUBLIC OF UZBEKISTAN UNDER CAREWIB PROJECT"

During 12-13 June, 2008, CAREWIB personnel organized and held second training seminar on the development of national information system in the Republic of Uzbekistan in Tashkent.

Authorities of Central Water Administration of Ministry for Water Resources and Agriculture of the Republic of Uzbekistan realize the importance of implementation of up to date information storage and processing systems and their use in everyday management activities. Issue of creating national information system was considered at water management council of the Central Water Administration, as a result of which protocol has been signed and duties of responsible bodies for filling and supporting national information system have been assigned. IS section coordinator D.A. Sorokin and section programmer A.V. Kats arranged practical training on enhancement of national information system of CWA MWRA of the Republic of Uzbekistan. The developers transferred forms for database that included newly added blocks "Land reclamation", «Water use» and «Supervisory service».

In the course of discussions followings were suggested by the participants:

- Necessity of adapting proposals of SIC ICWC regarding forms of data entry for the demands of CWA, for which review of database is required and entry fields should be added;
- It is necessary to add new entries in the «water use» block for different types of watering and crops (cotton, wheat, water recharging, leaching and so on);
- Specify date setting possibility and start calculations from it on an accrual basis;
- In the report for printing foresee the possibility of printing out optional entries, necessary at the moment;
- It is necessary to get interface of the national information system translated into state language.

Following decisions were made from seminar results:

1. National contact point together with the developers should determine structure and composition of output fields, and to assist in translating interface into state language.

2. Ask the SIC ICWC team developers to finalize database forms, taking into account abovementioned proposals.

Finally, all the participants expressed sincere gratitude to the workshop organizers: CWA MWRA of Republic of Uzbekistan, SIC ICWC and workshop sponsor SDC.

CENTRAL ASIAN REGIONAL WATER INFORMATION BASE (CAREWIB)

During 22-23 July, 2008, regional seminar on «Central Asian Regional Water Information Base» (CAREWIB) was held in Tashkent.

Aim of the seminar was to consider reports regarding finished activities in the first half of 2008, discuss future tasks and hold training for entering information into sections of portal in state languages.

The seminar was hold under the financial support of Swiss Development and Cooperation Agency (SDC).

Managers of national contact points (NCP) at the Ministries of water resources, regional correspondents of the project in countries, personnel of regional office (SIC ICWC) took part in the seminar.

Prof. V.A. Dukhovny, Director of SIC ICWC opened and welcomed participants of the seminar.

In the course of seminar reports of managers of NCP from each country were heard:

- Progress report on the development of national IS in the Republic of Kazakhstan in the first half of 2008 (G.B. Sersenbayev)
- Progress report on the development of national IS in the Republic of Kyrgyzstan in the first half of 2008 (D.O. Alchibekova)
- Progress report on the development of national IS in the Republic of Tajikistan in the first half of 2008 (N.K. Nosirov)
- Progress report on the development of national IS in Turkmenistan in the first half of 2008 (A. Muhammedov)
- Progress report on the development of national IS in the Republic of Uzbekistan in the first half of 2008 (B. Ahmadjonov)

Later following presentations were heard:

- Progress report on block «Portal» for the first half of 2008 (I.F. Beglov)
- Progress report on block «Information System» for the first half of 2008 (D.A. Sorokin)

Seminar participants were involved in training for filling national section of CAWater-Info portal, and moreover «Manual for content management system (CMS) for national contact points» was presented.

It should be noted that SIC ICWC became a member of Asian network of water organizations, known as «Knowledge Hubs» organized by the Asia-Pacific Water Forum. The Knowledge hubs will help people to find out possible solutions and adapt them to their local conditions. In this connection, new portal section in state languages as expected will become valuable part of «Central Asian knowledge hub for IWRM».

During the seminar problems regarding project implementation were discussed, participants' proposals and desires were considered.

Following conclusions were drawn by the participants after discussions and familiarizing with the reports:

- NCP managers should present SIC "National information system development strategies" by 25 August for generalizing and presenting it to the ICWC members in the next meeting in the middle of September in Almaty.
- Project correspondents in the republics and NCP managers should verify the information for each indicator entered into regional Information system; including water facilities (term-by the end of September).
- Reports of verified Regional DB acceptance should be signed (regarding each country) among managers or authorized representatives of water ministries and/or departments, NCP and SIC ICWC managers.
- Verified information of Regional DB should be delivered to SIC ICWC in an electronic format and in paper format for storage (without giving to third parties unless permission of ICWC members is obtained).
- All NCPs have to start collecting primary cartographic information in dimension of provinces of the countries.
- NCP managers should pay attention to materials translated into CAR state languages where the project is falling behind the schedule.
- Dates of training seminars in each country should be appointed and agreed on by NCP managers (in the periods between August-November).
- A section should be created on the portal for covering best practices and achievements of national teams in the development of national systems.

All participants thanked seminar coordinators—SIC ICWC and the sponsor – SDC.

SESSION OF «IWRM-FERGANA» PROJECT STEERING COMMITTEE

On August 7, 2008, a meeting of «IWRM-Fergana» project Steering Committee was organized in Osh city, Kyrgyzstan. During the meeting national office manager's progress report was heard.

K.E. Tajibayev informed the committee about the course of completing planned tasks concerning project and in detail emphasized on tasks fulfilled in the framework of «Institutional and organizational aspects of IWRM». Particularly he noted that:

Item A.1.1

- Headquarters have been organized at the AAC pilot canal, at which representatives of Aravan RWM and Aravanian agricultural department participated
- During field workshops in rural communities Kereme-Too, Japalak, seminar participants were familiarized with activities of WUU and CA and also about necessity of organizing WUU councils.

Item A.1.1.1

- Workshops have been organized with representatives of Osh state water inspection, Osh city water-supply organization, and Karasu RWRM.
- Meetings were held in territorial committee in Dostuk, which is a part of quarter committee of Osh city (canals AAC, Kayirma, Joypas flow through Osh city). In the course of meeting explanatory and mobilization work was conducted. Meeting resulted in applications for membership in AAC WUU and participation of Kizyl-Kishtak rural community in the cleaning of water-protection zone of Joypas canal from trash.

Item A.1.1.4

- Problematic zones have been examined in WUA «Joypas», WUA «Ican», WUA «Murza-Aji», suffering from water shortage in the tail part of Kayirma-2, Joypas, and Jenish canals.
- Inactive job of WUA Committees was noticed.

- For improving water supply situation, heads of domestic committees (ayil-bashchi) and water users of adjoining the farmhouse were invited for cooperation.
- For achieving equal and stable water allocation in secondary, tertiary and quaternary canals, groups of water users (GWU) are being formed and group leaders being chosen. Furthermore, leaders of GWP are invited to work in WUA Committee.
- In WUA «Joypas» GWU has been organized completely. As a result, followings have been achieved:

  - Equitability in water allocation has increased;

  - Collection of payments for water resources has risen;

  -Conflicts and disputes have mitigated;

  - Interrelationship between water users and WUA staff has improved.

Item A.1.1.6

- During the workshops water users were informed about WUA and GWP activities and bulletins about AAC WUU work and extract from Water Code of Kyrgyz Republic were distributed.
- Trainings have been carried out by IWMI specialists in 5 modules

Item A.1.3

- Preparatory work has been done on development of management of right-bank supply canal (RBSC):

- Inventory has been made up of South Kasuy RWRM until DP-173-50 and linear scheme has been prepared;

- Regular monthly workshops were organized with water users in WUAU «Uvam», schedule was arranged for workshops;

- For enhancing financial stability of WUAU «Uvam» business plan was made up, prepared and delivered to representative of IWMI O. Anarbekov for receiving grant;

- A number of meetings were organized in Osh BWMO, Karasu RWMO, and WUAU «Uvam» where UPMK development mechanisms were discussed. In addition to that creation of initiative group and work group for preparing required documents were considered.

- Workshops were organized concerning activization of WUA committees' work in rural community Shark in WUAU «Uvam».
- In Babalashkar district with an active participation of old people, a meeting was organized with water users in a mosque.

- On initiative of water users of Guch-Gunan canal under hydrographic principle WUA «Guch-Gunan» was established (currently WUA is on legal registration stage), moreover, 5 WUGs had also been created here.

Item A1.7 and A1.8

- Materials have been prepared concerning supply of drinking water in Osh city.
- Materials have been prepared regarding water preservation zones and transit areas of AAC canal.
- Materials have been prepared for land reclamation cadastre for the whole 2007 period and for the periods of 2003-07.
- Assistance was provided in mechanical cleaning of CDN and preparation of materials regarding water-logged lands of WUA «Japalak» in the line of State Register.

During discussions the participants mentioned that it is necessary to pay more attention to issues concerning ecology and land reclamation. For successful realization of institutional aspects of project close cooperation with local authorities, elders, and governmental organizations is essential. It is required to clarify hydro modulus planning since after development of hydromodulus in 1992 introduced by VNIIKAMS essential changes have happened in both cropping patterns and soil-land conditions.

According to discussion results and debates, the participants of the conference unanimously made proper decisions.

In 07.08.2008 a meeting of «IWRM- Fergana» project Steering Committee on Tajikistan was organized in Hudjand city.

National coordinator A.M. Zoirov familiarized everyone about the progress of work, in particular, installation of equipment for Hodjabakirgan canal automation. A note has been prepared for improvement of water supply in the tail part of the canal (recovery of uncompleted construction of reservoir in Isfara-say) and differentiation of water supply costs in non- growing season.

Chairman of Hodjabakirgan canal water users committee A. Abdusaminov informed participants about ecological conditions in the canal zone.

It was recommended to strengthen activities on WUA creation in B. Gafurov district under the scope of project, and also increase awareness of water users about water preservation zone, prepare and distribute bulletins about ecological conditions of Hodjabakirgan canal.

In 09.08.2008 in Fergana a meeting of «IWRM- Fergana» project Steering Committee on the Republic of Uzbekistan was held. During the meeting work progress of hydrostation construction in WUA in Andijan and Fergana rayons were analyzed.

National coordinator of «IWRM-Fergana» project in the Republic of Uzbekistan, H.U. Umarov spoke at a meeting. First of all he familiarized participants of SC meeting with comments of «IWRM-Fergana» project director, prof. V.A. Dukhovny regarding hydro station construction in WUA under mini project (28.07.2008). Later on he informed participants on the course of construction of gauging stations. He said that construction of gauging stations has been planned for purposes of keeping water records in WUA, but in some WUA water records for internal irrigation networks are not kept, even water intake-transfer journals are not maintained. It was mentioned that ecological specialists have not done enough for water protection zone of the canal. Following requirements were not met: information about water users' requests, comparative data for actual water intake. Moreover other limitations were observed.

Later on participants examined the report of the National coordinator and some other issues.

One of the reasons for low rate of gauging station construction is lack of support by local WMO (ISA) explained «Mini-project» manager R. Masumov.

After discussing issues proper conclusions were drawn.

TRAINING SEMINAR ON DEVELOPMENT OF NATIONAL INFORMATION SYSTEM IN TURKMENISTAN UNDER CAREWIB PROJECT

On 20-27 August, 2008 in Ashkhabad CAREWIB personnel organized and held a training seminar on the theme "Development of National Information System in Turkmenistan".

National contact points of project CAREWIB in Turkmenistan with an active participation of CAREWIB (SIC ICWC) personnel are developing National information system (NIS) of Turkmenistan on Water and Land resources.

Uniform system of recording land and water resources developed by NIS will allow promoting regional cooperation to a qualitatively new level in the sphere of use and preservation of water resources in the Aral Sea basin.

Main aim of NIS will be providing ministries and agencies with necessary information, improving efficiency of use, management and protection of water resources, planning of national water sector development, designing and implementing effective water policy.

National contact point in Turkmenistan will concentrate on collecting information regarding agrarian and water-energy blocks obtained directly from district and regional water organizations.

Strong relationship with water and ecological institutions enables the country to enrich information in the database related to social-economic block regularly.

Subdivisions of Ministry for Water Resources of Turkmenistan carry out collection of cartographic information.

In the course of training practical lessons were conducted, capacity-building skills for national database of WM of Turkmenistan were worked out.

Followings were decided by seminar participants:

1. NCP manger together with interested departments of WM (land reclamation department, exploitation department, and supervisory service) job should conform and approve at the Ministry of Water Resources of Turkmenistan updated «Development Strategy of National information system of Turkmenistan»

2. By the end of September project correspondent and NCP manager should accomplish verification of information related to Turkmenistan, for each indicator entered into regional Information system; including water facilities.

3. Verified DB acceptance report related to Turkmenistan should be signed (regarding each country) by NCP managers and SIC ICWC

4. NCP manager should deliver to SIC ICWC verified information of regional DB related to Turkmenistan in an electronic and in hard copy format for storage

5. NCP should start collecting primary cartographic information in dimension of provinces.

6. NCP manager should pay attention to materials translated into national languages of CAR where the project is falling behind the schedule.

In order to connect additional MWI computers to national information system server, network hardware had been purchased and connection operations had been carried out.

At the end of the seminar all participants expressed sincere gratitude to seminar coordinators-SIC ICWC and sponsor of the seminar- SDC.

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