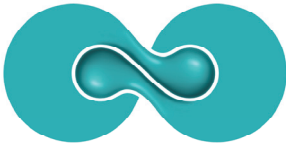


ISTANBUL 2009
5th WORLD WATER FORUM



BRIDGING
DIVIDES
FOR WATER

Turkey and the Surroundings

SUB-REGIONAL SIDE EVENT SE 026

Climate Change, Water Resources Management, Governance and Capacity Building Issues in Central Asia and Caucasus

Co-organizers:



Interstate Commission for Water
Coordination in Central Asia



Executive Committee
of the International Fund
for the Aral Sea Saving



Global Water Partnership
Central Asia and Caucasus

March 18, 2009
Time: 09:30 – 13:00

Venue/Room: Sutluce/Kasimpasa 1-2 Hall

Supported by Ministry of Foreign Affairs, Finland



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Map of Central Asia and Caucasus sub-region

Climate Change, Water Resources Management, Governance and Capacity Building Issues in Central Asia and Caucasus

The CACENA (Caucasus and Central Asia) region can geographically be subdivided into two sub-regions: The Southern Caucasus (three countries – Azerbaijan, Armenia and Georgia), and Central Asia (five countries – Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan). There is a big differentiation in renewable water resources availability among the countries within each sub-region. The biggest part of the territory is located in the arid and semi-arid climate, and irrigated agriculture accounts for about 85-90 % of total water use. The most common challenging issues for the Caucasian sub-region are the low access to proper drinking water supply and sanitation, water ecosystems degradation, floods and, in some zones, water scarcity. For Central Asia there are increasing water deficit and water ecosystems degradation. Transboundary issues (conflicting interests for water among upper and down stream countries) are common for the whole CACENA region.

There are principal efforts undertaken by national water authorities mostly addressing to implementation of the integrated water resources management (IWRM) principles towards sustainable development and MDGs achievement in all eight countries. These include public participation in decision making, promoting political will to cooperation among sectors and countries, initiating dialogues among all stakeholders and support to practical actions at local levels. Due to active role of the Regional Water Partnership (RWP) CACENA in a close cooperation with the Executive Committee of International Fund for the Aral Sea Saving (EC IFAS) and the Interstate Commission for Water Coordination (ICWC) a lot of joint activities have been implemented, as a result of which good relationship has been established between water related professionals from all countries. During the regional meetings within the framework of RWP CACENA, exchange of information and management experience takes place between the principal stakeholders. The RWP CACENA provides favorable conditions for integrating not only into the GWP network activities, but together with the IFAS and other regional processes also for involving local partners into activities supported by other international organizations and donors.

Main Challenges and Actions

There are a number of challenges for sustainable water resources management in Central Asia and Southern Caucasus, which are predetermined by the following destabilizing factors:

- *Population growth*, although its rates have reduced in comparison with the last quarter of the 20th century, makes up not less than 1.5% per year resulting in significant, additional demands for water;
- *Urban population growth* and expanding urban areas causes additional pressure on the water resources;
- *Changes in crop pattern* due to restructuring of agriculture there is tendency to produce more high-valuable crops;
- *Climate change* causes increasing water requirements for agriculture and more often recurrence of extreme flood and drought events;
- *Progressing instability in world prices on agricultural production* against increase in costs of agricultural inputs makes the irrigated farming less cost-effective, at the same time there are no alternatives to irrigation due to its high social significance for the region (about 60% of rural

population rely on it).

- *Worsening of the competition for water resources between upstream and downstream countries* - mainly due to shifting the water flow regimes towards the interests of maximum hydropower production, especially in winter time – created serious friction in regional cooperation.
- *Possible increase in water withdrawals from the Amudarya river by Afghanistan* after stabilization of its economic situation will add stress on the actual water balance.

There are also a number of *internal challenges*, which should be added to those listed above:

- *Lowering the accuracy of water resources accounting/registration and forecasting*, resulting in unproductive water losses along river channels;
- *Obsolescence and degradation of water infrastructure* at all levels of water management hierarchy resulting in increase of unproductive water losses and deterioration of monitoring;
- *Low level of capital investments to rehabilitation and upgrading water infrastructure*;
- *Increased number of end water users (farmers)*;
- *Insufficient financing of Operation and Maintenance (O&M) resulting in loss of skilled personnel*.

With the aim to find proper way to overcome the most of the above-mentioned destabilizing factors the Central Asian and Southern Caucasus countries organized the Regional Preparatory Meeting of the Fifth World Water Forum, which took place in Bishkek on 28-29 May 2008. The meeting was hosted by the Ministry of Agriculture, Water Management and Processing Industry of Kyrgyz Republic, the Ministry of Environment and Forestry of Turkey, the Interstate Commission for Water Coordination in Central Asia and the Global Water Partnership Central Asia and Caucasus. Ministers from Kyrgyz Republic, Turkey, Tajikistan and Turkmenistan attended to the meeting. Presentations were made by Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, 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 with about 200 experts from the 13 countries sharing similar problems were fruitful and provided guidance for next steps. Finally, four major topics were formulated as main outcomes of the Bishkek meeting, for which follow-up activities towards WWF-5 were agreed. These are the following:

Topic 1: Climate change impact on water resources

Topic 2: Basin management and trans-boundary cooperation

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

Topic 4: Capacity building and education

Progress on political commitments

During the past few months 2008 there were a number of politically significant events in the CACENA region addressing to cooperation in general and to water issues in particular.

On 10 October 2008 in Bishkek Heads of Central Asian countries using opportunity to meet within framework of the Commonwealth of Independent States had a discussion addressing regional cooperation on water-energy issues. There was confirmed one more time willingness for regional cooperation in this sphere. On 16-17 October Vice-Prime Ministers of five states signed agreement about joint measures to overcome water problems within the Aral Sea Basin during Winter – Spring season of 2008-2009.

On 2 November in Moscow Presidents of Armenia and Azerbaijan met for the first time after many years to start negotiation process on Nagorny Karabakh – improvement of the political environment will open more room for decision water related issues within the Southern Caucasus sub-region.

Inauguration of the new EC IFAS during regional conference held on 17-18 November 2008 in Almaty gives a new positive impulse to regional water cooperation.

The key principles needed for progress on political commitments could be grouped into three categories:

1. Regional approach needed: Ownership and sustainability

- Ensure the stability and the security of the countries of the region;
- Promote closer regional cooperation within sub-regions: Central Asia and Southern Caucasus;
- Build upon achievements already made in the countries;
- Make donor assistance conditional upon regional cooperation;
- Encourage regional political and financial commitment;
- Allow strong leadership of regional institutions by locals, not donors.

2. Negotiation strategy: Creative approaches

- Apply issue-linkage strategies, e.g. water for energy, water for environment, etc.;
- Offer incentives to constituencies who may lose from cooperation;
- Carry out basic dispute resolution functions: information flow, fair treatment, and sustainable processes;
- Allow local solutions to transboundary activities.

3. Programme management: Network and authority

- Commit to coordination and knowledge sharing;
- Make conflict prevention measures integral to programmes and projects;
- Support existing institutions in cross-sectoral activities, and;
- Encourage cooperation with global knowledge networks.

The Side Event in Istanbul on 18 March 2009

“Climate Change, Water Resources Management, Governance and Capacity Building in Central Asia and Caucasus”

Venue/Room: Sutluce/Kasimpasa 1-2 Hall

The side event moderators:

Khalid Mohtadullah – Senior Advisor GWP
Prof. Victor Dukhovny – Director SIC ICWC

9:30 – 9:35 Stage setting by Panelists:

GWP CACENA Chair – **Ms. Nino Chkhobadze**, Georgia
 Chairman of EC IFAS – **Mr. Saghit Ibatullin**, Kazakhstan
 Helsinki University of Technology – **Prof. Olli Varis**, Finland

Members of ICWC:

- **Mr. Anatoliy Rybtsev** - Chairman of Committee of Water Resources, Ministry of Agriculture Kazakhstan
- **Mr. Baratali Koshmatov** - Director General Department of Water Resources, Kyrgyz Republic
- **Mr. Saidi Yakubzod** - Minister of Land Reclamation and Water Resources, Tajikistan
- **Mr. Kakadurdy Atalyev** - Deputy Minister of Water Resources, Turkmenistan
- **Mr. Shavkat Khamraev** - Deputy Minister of Agriculture and Water Resources, Uzbekistan

Topic Experts:

- Climate Change: **Dr. Berik Baymagambetov** - Chairman of Regional Hydrological Center of EC IFAS
- Transboundary Cooperation – **Dr. Ali Umran Komuscu**, Turkish State Meteorological Service
- Capacity Building – **Dr. Pulat Umarov**, Training Center of ICWC

9:35-9:40 General introduction of the session by Chairman of EC IFAS - Mr. Saghit Ibatullin

Welcome speeches:

9:40 – 9:45 On behalf of Government of Turkey - tbc,

9:45 – 9.50 Chair of the Global Water Partnership - Mrs. Letitia Obeng

9:50 – 10:00 Deputy Head of Finland Delegation – Mr. Matti Kaariainen - Role of Water in Development; Brief on the new policy document called "Wider Europe Initiative" on Finland's development cooperation for Central Asia and Caucasus

10:00 – 10:10 Brief presentation of the topic 1 - Climate change impact to water resources in Central Asia and Southern Caucasus by Dr. Berik Baymagambetov - Chairman of Regional Hydrological Center of EC IFAS

Climate change, population growth, industrialization, urbanization and deforestation create huge stress on the water resources of the region. Understanding the effects of the climate change is central for developing regional and national adaptation strategies. More than 90% of water resources of the Aral basin are using for irrigation purposes. Agricultural production gives about 30% of GDP, and provide employment for 60% of population of the region. The main consequences of climate change are

increase of river flow deviations and growth of water consumption in agriculture. Thus, every factor, impacted to water resources, immediately be reflected on the life standards of population. The main purposes of this report are evaluation of the water resources in connection with climate change and tendency of processes. The report based on the long term observations provided by five national scientific organisations. Observation, measurement and monitoring networks should be improved. The scale of tasks and problems on mitigation of influence of the climate change is rather great and covers almost all spheres of the human life. This problem in aggregate with the drying Aral Sea should be given the priority attention in the region. Mitigation and overcoming of these crises require mobilization of the efforts of all stakeholders and more harmonious cooperation of the regional countries.

10:10 – 10:30 Panel discussion and questions from the audience on topic 1 with Moderator Khalid Mohtadullah

10:30 – 10:40 Brief presentation of the topic 2 - Transboundary cooperation by Dr. Ali Umran Komuscu, Turkish State Meteorological Service.

The region is relatively rich in water resources, but there are many transboundary rivers. Transboundary dialogue and cooperation in the region for the last 17 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 sectoral and partly at the technical levels 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 transboundary 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 with involvement of all stakeholders in the form of International Basin Councils. 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 transboundary rivers. Inter-national Commissions should be established by the riparian states in order to manage transboundary water resources in an equitable and sustainable manner. Integrated water resources 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 needs to be followed. Taking into account the fact that the three Southern Caucasian countries (Azerbaijan, Georgia, Armenia) share the Kura-Araks river basin, there is not still any interstate document, which would regulate transboundary water resources use and management; it is necessary to develop a Concept for formulating such a document, in which the GWP CACENA with support from Finland can play a big role from the perspective of both consulting and financing. Lessons and tools as well as mistakes of ICWC activities should be taken into account for building such sub-regional capacity in the Caucasian countries.

10:40 – 11:20 Panel discussion and questions from the audience on topic 2 with Moderator Prof. Victor Dukhovny, SIC ICWC

11:20 – 11:30 Brief presentation of the topic 3 - Water Governance by Mr. Saghit Ibatullin, Chairman of EC IFAS

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:

- Transboundary level (agreements, strengthening of organizations on regional/basin level, ecosystem demands, economical tools – cost and benefits sharing, information exchange, water demand and limitation, public participation)
- Same at National level plus National Strategic plan on water saving
- Same at Basin (provincial) level, including financial tools
- Same at System level
- Same at 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.

11:30 – 11:35 The new book presentation by Prof. Victor Dukhovny:

IWRM – From Theory to Real Practice: The Experience of Central Asia, published by SIC ICWC/ IWMI and SDC, available online at: http://www.cawater-info.net/library/books_e.htm

11:35 - 11:40 The new book presentation by Muhammad Mizanur Rahman:

Central Asian Waters: Social, Economic, Environmental and Governance Puzzle, published with support from Helsinki University of Technology and available online at: www.water.tkk.fi/global/publications

11:40 – 12:00 Panel discussion and questions from the audience on topic 3 with Moderator Prof. Victor Dukhovny, SIC ICWC

12:00 – 12:10 Brief presentation of the topic 4 - Capacity Building by Dr. Pulat Umarov, Training center of ICWC

Training of the trainers is crucial in the region. Furthermore, education of the technical people as well as 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 and in the Kura-Araks 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
- Modelling tools for decision support systems.

Furthermore, public awareness and concern on water issues should be created by EC IFAS and GWP CACENA with involvement of Finland and other donors and International Agencies. NGOs involvement and media attraction are essential to this end.

12:10 – 12:40 - Panel discussion and questions from the audience on topic 4 with Moderator Khalid Mohtadullah

12:40 – 13:00 General conclusion and side event closing with Moderators Prof. Victor Dukhovny and Khalid Mohtadullah

The tea, coffee and cookies will be served for participants in outdoor area of the side event room

Some ideas on follow-up activities after 5th World Water Forum:

- Meeting of ICWC in April 2009 – to discuss outcomes of the 5th World Water Forum and follow-up activities.
- Meeting of Presidents of the IFAS countries in Kazakhstan – to discuss further Joint Aral Sea program activation.
- Give input to the “Wider Europe Initiative” proposed by Finland on its water component
- Cooperation with Helsinki University of Technology on a 2009-2010 Caucasus curriculum on IWRM for young water professionals
- A number of working regional meetings under umbrella of “Transboundary Dialogue” to discuss progress on interstate agreements, which are under preparation with support from ADB and conducted by EC IFAS (certain contribution to dialogues will be made by GWP CACENA with involvement of Finland).
- Launching new program for CACENA jointly with WWC and IUCN “Water Governance” – summer 2009 (expected Finland involvement – details will come later).
- Special session during Regional Asian Conference of ICID in December 2009 – to discuss further collaboration program for the Central Asian countries.
- Preparations for the 2nd Asia-Pacific Water Summit to be held in Singapore in June 2010.



Nurek water reservoir on the Vakhsh river in Tajikistan (November 2008)

**Additional information on:
www.cawater-info.net
www.gwpcacena.net**