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39TH ORDINARY MEETING OF THE INTERSTATE COMMISSION FOR WATER COORDINATION

The 39th ordinary ICWC meeting was held on 26-27 May 2004 being presided by A.D. Ryabtsev, Chairman of the Committee for Water Resources, Ministry of Agriculture, Republic of Kazakhstan.

The following matters were considered at the meeting:

1. Specifying water intake limits and operation mode of reservoir cascade in the Amudarya and Syrdarya river basins for vegetation period 2004.
2. Progress of activities aimed at preparing Interstate Agreements in the context of the implementation of commissions from the Heads of States in regard to ASBP-2.
3. Agenda and venue of the 40th ordinary ICWC meeting.

The ICWC members took into account information of BWO “Amudarya” and BWO “Syrdarya” on implementing water intake limits and providing the agreed operation mode of the Amudarya and Syrdarya river reservoir cascades for non-vegetation period 2003-2004.

The participants of the meeting confirmed the specified limits of water intakes from the Amudarya and Syrdarya river channels for vegetation period 2004. The predicted operation mode of the Amudarya river reservoir cascades was approved. BWO “Amudarya” was commissioned to amend this mode taking actual water availability into consideration.

The predicted operation mode of the Syrdarya river reservoir cascades was approved. This mode was recommended to the Intergovernmental Workgroup for water- and power-related issues in the Syrdarya river basin for consideration to prepare an appropriate annual agreement.

The participants of the meeting took into consideration information on the progress of the activities aimed at preparing Interstate Agreements in the context of the implementation of commissions from the Heads of States in regard to the ASBP-2. In agreement with the governments of the countries, the ICWC members will specify the priority of developing legal documents included in the ASBP-2 Plan, and define responsible members of workgroups from each country for the preparation of these documents.

The decision of the Asian Development Bank (ADB) on the implementation of the regional project titled “Transboundary water resources management upgrading in Central Asia” including the component on perfecting the 1998 Intergovernmental Agreement on Rational Use of Naryn-Syrdarya Reservoir Cascade Water and Power Resources was approved.

BWO “Syrdarya” and SIC ICWC were commissioned to prepare membership of workgroups, and submit plan of activities of these groups to the next ICWC meeting. The ICWC members decided to apply to the ADB for quickening the launch of this project.

The 40th ordinary ICWC meeting will be held in the Kyrgyz Republic in August 2004.

CENTRAL ASIAN INTERNATIONAL SCIENTIFIC-APPLIED CONFERENCE “WATER PARTNERSHIP IN CENTRAL ASIA”

In connection with the USSR's collapse, changes have been occurring in political and economic situation in Central Asia since 1991. Five newly formed independent states began their transition to the market economy that requires reviewing approaches to water resource management and use issues in the context of an unstable ecological situation in separate parts of the region. Each state in the region defines its own national interests of socio-economic development, changing its attitude toward environmental problems, and realizing the necessity of orientation to the international water right principles. In the transition period when states only set their own priorities in view of common regional restrictions (one of which is ecological situation around the Aral Sea), it is necessary to keep stability in water resources management.

To this end, in October 1991 the heads of water authorities in five Central Asian countries made a statement, which laid the basis for signing the «Agreement between the Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan and Republic of Uzbekistan on Water Resources Use in the Amudarya and Syrdarya river basins» in February 1992. In accordance with this Agreement, the Interstate Commission for Water Coordination (ICWC) was set up. The main tasks of ICWC are to coordinate transboundary river water resources management, rational use and protection in the region, and develop a prospective strategy for water resources management in view of changes in socio-economic situation in the countries.

Over the last period 38 ICWC meetings were held, at which decisions were made on the current and future problems of water management and use in the Aral Sea basin. The 39th ordinary ICWC meeting will be held on 26-27 May 2004 in “Kargalinskiy” Sanatorium, Almaty.

For broader public awareness of water problems, the ICWC initiated Annual Regional Water Conference in 2002 in Almaty. The Third Central Asian Scientific-Applied Conference “Water Partnership in Central Asia” is timed to the 39th ICWC meeting. The aim of the conference is to present the results of a number of water projects being implemented in the countries in the region, and exchange opinions on more critical aspects of water resources management.

Inauguration ceremony of the Country Water Partnership of Kazakhstan

One of outstanding events within the framework of the conference was the inauguration of the Country Water Partnership of Kazakhstan set up on the initiative of the Global Water Partnership – an international network supporting IWRM ideas – held on 26 May. During the ceremony two new short films, “Water resources of Kazakhstan - River Basin Management” and “Water resources of Kazakhstan -Municipal Management”, prepared by Eco Forum of Kazakhstan with financial support of GWP were presented. The participants unanimously approved the Framework Agreement on Partnership in Water Sector of the Republic of Kazakhstan” and elected seven members to the Technical Consultative Committee of the Country Water Partnership of Kazakhstan. Director of SIC ICWC Kazakhstan Office Prof. N.K.Kipshakbayev was chosen as Coordinator of the Committee, and CAK “Atasu” Executive Director Y.S. Tyrtyshtny as Executive Secretary.

The Country Water Partnership of Kazakhstan together with the UNDP and GWP held a special meeting dedicated to the new project titled “National Integrated Water Resources Management and Water Efficiency Plan for Kazakhstan” on 27 May. This project is launched with the support of the UNDP and GWP and funds allocated by the Norwegian Government. The project launch was welcomed by A.D. Ryabtsev, Chairman of the Committee for Water Resources of Kazakhstan, G. Johnson, UNDP Deputy Representative in Kazakhstan, E. Gabbrielli, GWP Executive

Secretary, V.I. Sokolov, Chairman of Regional Technical-Consultative Committee of Central Asia and Caucasus. The project presentation was made by Manager of the UNDP Environment Department in Kazakhstan Z. Takenov and Project Manager Y. Istileulova. The main project objects are to help to develop a national integrated water resources management plan for Kazakhstan, strengthen water partnership in the country, and help to integrate water issues into common national development policy.

Integrated water resource management

(joint session of GWP CACENA, SDC, SIC ICWC, IWMI, USAID, UNDP)

On 27 May a section session on integrated water resources management was held, which brought together more than 60 participants. 8 papers were presented. The presentation of V.I. Sokolov (SIC ICWC/GWP CACENA), which stated that the main goal of integrated water resources management (IWRM) was to create conditions for stable and equitable water supply to human and environmental needs, was central. Moreover, the problems of basic IWRM principles implementation such as how to organize management on hydrographic principle, link water use and all participating organs horizontally between sectors and vertically between water management hierarchy levels, provide public participation not only in management but also in financing, support, planning and development of the water sector, and technical IWRM aspects were presented. The participants of the meeting received information on the results of the pilot project for IWRM principles implementation in Ferghana Valley from the papers of T.I. Palvanov (SIC ICWC) and M. Ul Hassan (IWMI). Deputy Director of Agency for Water Resources of Armenia O. Kirakosyan presented a paper on the establishment of a legal base for IWRM in Armenia. Furthermore, U.B. Saparov (Institute "Turkmengiprovodkhoz") presented a paper on the problems of water sector development in Turkmenistan. Two presentations at the session were dedicated to the promotion of the News Collection on the GWP Tool Box for IWRM. At the first presentation D. Talmeinerova from Slovakia presented a summary of the GWP Tool Box and proposed a joint work program for the development of this collection with the participation of specialists from GWP Central and Eastern Europe and GWP Central Asia and Caucasus. At the second presentation Prof. V.A. Dukhovny presented the view of Central Asian specialists on tools applied in everyday water management practice.

The main result of the session was that the representatives of the eight countries in Central Asia and Caucasus confirmed their adherence to IWRM principles and readiness (in a varying degree) to put them into practice.

Information service for water partnership development and strengthening *(joint session of SDC, SIC ICWC, UNECE, GRID-Arendal, USAID, and World Bank)*

Information service in water sector is necessary for on-line data supply to water authorities, dissemination of accumulated knowledge about water management and use process, public awareness of the current problems. Openness and accessibility of information on water resources and their use are powerful means for strengthening water partnership in the region. Organizational, legal and technical aspects of regional information service development were discussed during the conference.

At this session the following resolution was adopted:

Sustainable water use is the main regional problem in Central Asia. This concerns unsolved environmental problems of the past as well as the consequences of the Aral crisis and current problems such as regional water resources allocation and management, including interagency and interstate problems.

The realities existing in the developed countries call to application of modern information technologies. Knowledge gathering and processing in the form of knowledge bases and expert systems is becoming a key element of new information technology. Intensive development of the Internet and communication facilities places information gathering and dissemination problems to the new level.

On 28 May 2004 the joint session of SDC, SIC ICWC, UNECE, and GRID-Arendal “Information service for water partnership development and strengthening” was held, in which the representatives of water, scientific and non-governmental organizations and agencies of the Aral Sea basin states, SDC, SIC ICWC, the US Embassy in Uzbekistan and others took part.

1. Providing information transparency and free access to information on water and land resources and ecology of the Aral Sea basin is one of the most important aspects of sustainable development of the region.
2. The implementation of the Central Asia Regional Water Information Base Project aims at establishing closer contacts and strengthening the partnership between environmental and water organizations in the region.
3. It is planned to develop the Regional Information System in the course of the project in accordance with the “Agreement between Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan on the creation and use of national, basin and regional databases on water resources sharing and conservation in the Aral Sea basin” signed by the ICWC members.
4. The potential of Central Asian countries will be strengthened by creating a permanent network of regional correspondents.
5. The project results will be used in decision-making processes, by the mass media, and for raising public awareness.
6. It is necessary to intensify involving lower levels of water governance (oblast, system levels) and water use (WUAs) in information network.

Role of women in water resources management and use (*joint session ADB, GWP CACENA, SIC ICWC*)

Particular role of women in water resources management and use is the subject of a special meeting within the framework of the conference. More active participation of women in water management is a guarantee for water sector sustainability as well as for equitable and productive water use. The participants of the conference discussed matters how to apply international experience in this regard in Central Asia.

Significant changes related to the transition period in Central Asia countries impact on the economy and population living standards in these countries. As a result both women and men have to bear these problems.

A gap in labor market and education sector is increasing, quality and opportunities of health care are reducing, gender, traditional and behavioral stereotypes are growing that raises women vulnerability in both family and society.

In agriculture and water sector gender inequality is getting apparent in right to land possession and various kinds of property, access to water, participation in segregation of duties, control over resources, opportunity of participation in water management in agriculture, access to markets and commercial services.

For solving gender problems in Central Asia, it is necessary to take the following measures.

At macro level:

- raising awareness of both female and male policy makers, supervisory personnel in water sector, water users with regard to the relation between gender equality issues and transition economic development;
- reliable information on basic issues of gender inequality and impact on policies, programs and reforms is necessary for strengthening information and analytic base;
- promoting equal participation of all stakeholders in view of gender equality;
- expanding cooperation between governmental, non-governmental structures, and civil society in water resources management;
- using gender approach in developing a legislative base in water sector.

At micro level:

- recognizing an important role of women as water users and the necessity of including them in management body staff of water user associations and canal committees;
- involving women in public water management authorities on a broader scale;
- maintaining women-landowners in legalization of rights to land and water;
- increasing potential and raising awareness of both women and men in regard to gender equality and their relation with water management;
- forming qualified consulting services for farmers;
- raising women access to micro-financing system and financial sector;
- promoting better understanding that irrigation development and upgrading is business of not only men, but also women.

The participants of the session - representatives of governmental, non-governmental, interstate organizations, research institutes and universities, and farmers of Central Asia – recognized that gender was one of central problems in water resources management. In view of that the projects being implemented by now in agriculture and water sector insufficiently took into consideration gender issues and with the purpose of changing the formed situation, the participants unanimously decided to create a gender and water network to carry out necessary actions. The objects of this network are:

- raise awareness of gender problems in the region;
- achieve greater understanding of gender issues in water resources management;
- exchange experience and best methods for using gender-sensitive approaches in water resources management.

At the plenary session the participants of the conference agreed to support this initiative and asked GWP CACENA to take a coordinating role in attracting financial resources, and ICWC in organizing information exchange.

Drinking water supply and population health (*joint session of the World Bank, ADB, ICWC, KNTU*)

Today normal drinking water supply and sanitation is one of more urgent problems in the countries of the region in the context of ensuring social stability and population health. At the session presided by Prof. M.M. Mirzaakhmetov the experience of Kazakhstan in implementing the state program for drinking water supply and sanitation was presented.

Meeting of the GWP Regional Technical Consultative Committee of Central Asia and Caucasus

On 28 May the ordinary meeting of GWP Regional Technical Consultative Committee of Central Asia and Caucasus was held, in which GWP Executive Secretary E.Gabbrielli first visiting the region took part. The following matters were discussed at the meeting:

- lessons from the creation of Country Water Partnership of Kazakhstan and consequent actions in regard to its functioning;
- plan of specific actions aimed at conducting a campaign for public awareness of IWRM in the countries of the region in 2004;
- discussing the presentation of the region at the Annual GWP Meeting in Malaysia in June 2004;
- rotation of RTCC members
- discussing the measures under the program of RTCC activities for 2004.

The organization of all activities on 26-28 May 2004 in Almaty was coordinated by the Interstate Commission for Water Coordination (ICWC) of Central Asia and carried out by the Committee for Water Resources of the Ministry of Agriculture of Kazakhstan, Scientific-Information Center of ICWC and Regional Technical Consultative Committee of GWP CACENA.

The participants of the conference expressed gratitude to the main sponsors of the conference – Asian Development Bank (ADB), United States Agency for International Development (USAID), United Nations Development Program (UNDP) and Global Water Partnership – for their contribution to strengthening water partnership in the region.

RESULTS OF THE BUDAPEST MINISTERIAL CONFERENCE ON ENVIRONMENT AND HEALTH

The 4th Ministerial Conference on Environment and Health was held in Budapest on 23-25 June 2004 within the framework of the Environment and Health Pan-European Process. Delegations from Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan represented by the Ministers of Environment and Health took part in the Conference as well.

The previous 3rd Conference took place in 1999 in London, which mainly resulted in adopting the Protocol on Water and Health as a supplement to the Convention on Transboundary Waterways and International Lakes Protection and Use (Helsinki, 1992).

Three priority areas were entered on the agenda of the present Conference. The first area concerned the progress on environment and health in Europe within the period after the 1st Pan-European Conference on the Environment and Health (Frankfurt, 1989). At the Conference the analysis of environment and health in Europe with a special attention to the countries of Eastern Europe, Caucasus and Central Asia, assessment of the “Environment and Health” process impact in Europe, and review of performance of decisions made at the previous Conference in London in 1999, including the progress assessment relating to the Protocol on Water and Health were presented.

The second area concerned the development of tools for policy making. The participants of the Conference considered the Pan-European report and assessment system (based on environment health indicators), and the methods for generalization and exchange of information. Another objective of the Conference was to consider the matters causing a growing anxiety among the community namely housing and health; water and health, energy, health and sustainable development; extreme natural phenomena impact on population health.

The Children’s Environment and Health Action Plan for Europe (CEHAPE) and Ministerial Declaration were adopted at the Conference. CEHAPE is focused on four regional tasks based on available actual data and assumed obligations such as the Convention for Children Rights. The Declaration denotes actions for solving priority issues in collaboration with other international organizations and civil society.

At the conference it was noted that despite the efforts made by the WHO and UNECE the Protocol on Water and Health had not come into effect yet owing to the weakness of ratification processes in the countries of the region. As before one of vexed questions of the conference was the integration of sectors and numerous action plans, particularly at national level. In spite of integration and synergism principles declared by all organizations, various forums initiate “own” processes and action plans. That was said by the most of speakers at the conference, and many international organizations such as GEF, World Bank, UNICEF, EAP Task Force and others did not participate in the conference at all.

Another vexed question repeatedly submitted for discussion at the conference was CEHAPE quantitative and temporal obligations. It seems that the conference organizers could not match quantitative objectives during the preparation and left this question at the discretion of the countries themselves.

At the same time, the Civic Forum, ‘Health and the Planet’, was held, at which round tables, workshops and exhibitions on “chemical substances and children’s health”, “water and health”, and others were organized with the representatives of NGOs.

Further information and resulting materials of the conference are available on the conference web site and in the CAREC library at: www.carec.kz;

DECLARATION OF THE FOURTH MINISTERIAL CONFERENCE ON ENVIRONMENT AND HEALTH (BUDAPEST, HUNGARY, 23-25 JUNE 2004)

Preamble

1. We, ministers and representatives from the WHO European region member states, responsible for environment and health, and the Director of the WHO European Regional Bureau, in the presence of the commissioners of the European Commission for Environment and Health, met in Budapest on 23-25 June 2004 at the conference dedicated to solving an important task such as providing healthy future for our children. The Budapest Conference aims to develop the results achieved at the previous conferences on environment and health (Frankfurt, 1989; Helsinki, 1994; London, 1999).

2. We note that important contribution, which the previous processes that resulted particularly in adopting the UN Convention on Children Rights, accepting the Millenium Development Goals and holding The World Summit on Sustainable Development (WSSD), made in recognition of relations between children health and environment state. We also realize the necessity to further continue activity aimed at implementing the obligations assumed within the framework of these processes in order to improve the conditions in the WHO European region, under which children grow, live, play, learn and work.

3. Recognizing the competence and leading role of the WHO in the United Nations (UN) system in developing guidelines and policies in the field of public health and environment and based on provisions and spirit of the Charter of the International Health Organization¹, we note with satisfaction that a noticeable improvement of public health and environment in the European region was achieved within the framework of "Environment and Health" process started in 1989. We welcome the report "Health and Environment in the WHO European region: Question State and Policy Development at the Beginning of the 21st Century" prepared by the WHO with the support of the European Commission. However, we would like to show a special concern about that despite the existing significant interregional differences in this regard, diseases caused by environmental factors continue to have a serious negative impact on population health. We recognize that the prevention of diseases and injuries is undoubtedly a much more desired and economically effective approach as against the approach directed to disease treatment. When prevention and sanitation work is carried out, a special attention should be given to aspects such as tender peculiarities and increase in economic differences having a certain impact on social living conditions within the framework of the Region.

Progress made after the London Conference and further prospects

4. We remind of signing the Protocol on Water and Health to the 1992 Convention on Transboundary Waterways and International Lakes Protection and Use², and, taking into account that by April 2004 only 11 countries deposited documents on ratification of this Protocol, we call the other WHO European region member states to ratify this Protocol or join it, and call member states, which signed the Protocol in London, to ratify it as soon as possible in order that it can

¹ The Charter was adopted by the International Conference on Health held in New York, 19 June - 22 July 1946, signed on 22 July 1946 by the representatives of 61 countries (Off. Rec. WldHlth Org., 2., 100), and came into force on 7 April 1948. Amendments adopted by the 26th, 29th and 39th sessions of the World Health Assembly (WHA26.37, WHA29.38 and WHA39.6 resolutions) came into effect respectively on 3 February 1977, 20 January 1984 and 11 July 1994.

² Turkey asks to consider her abstaining from approving this point since she did not sign the Protocol.

come into force in 2004. We also remind of the Millennium Development Goals approved and augmented by the WSSD decisions implementation plan, and confirm our obligations to achieve them. In particular, we confirm our obligation assumed at international level to halve the proportion of people without sustainable access to safe drinking water and sanitation by 2015. To this end, we will develop and ensure water resources management package plans that particularly provide for measures for sustainable saving of them.

5a. We remind of the obligations we assumed in the London Charter on Transport, Environment and Health, and are pleased to note the creation of Transport, Environment and Health Pan-European Program (THE PEP), which was submitted to the WSSD for consideration. We are pleased to note a considerable progress achieved within THE PEP, and recognize a great importance of these initiatives for successful implementation of the Children's Environment and Health Action Plan for Europe (CEHAPE). We confirm our obligations in respect of THE PEP, including allocation adequate resources for implementing the measures mentioned in THE PEP work plan. We will continue the activities for providing an adequate participation of New Independent States and South Eastern European countries in this activity; for strengthening, stimulating and supporting more active involvement of the health sector in this process; and especially for including arguments for public health care in national transport and environment programs and strategies.

5b. We suggest THE PEP Steering Committee and Bureau to provide the implementation of THE PEP Action Plan, ensuring necessary coordination for this purpose, monitoring partial progress and taking other adequate measures together with intergovernmental and non-governmental organizations and with the support of the Secretariat of the WHO/United Nations Economic Commission (UNECE). We undertake to support activities of the above-mentioned agencies in this direction.

6. We recognize the urgency and importance of the National Environmental Health Action Plans or similar initiatives in all parts of the Region as an efficient mechanism for making environment and health policies and deeply appreciate the efforts being made to carry out and assess these plans. We undertake to renew these plans if necessary in view of the results of the present Conference, and provide better matching of our actions with the activity carried out within the European Commission's environment and health strategy³ and action plan for 2004-2010 as well as with other action plans, programs and strategies in the fields such as environment, health and sustainable development.

7a. We recognize the accumulation of an ever growing actual data content, in particular as in the European climate assessment and third evaluation report of the Intergovernmental Group for Climate Change (IGGCC) it was noted that human activity significantly contributed to climate change. We also recognize that these changes represent a growing danger to public health in a short and long term. Thereupon we recognize great importance of the Kyoto Protocol provisions ratification and implementation as soon as possible. Over the period after the London Conference, in the spirit of fulfillment of the recommendations provided in the Declaration of the Conference in respect of early effects of climate change and stratosphere ozone layer exhaustion on human health, a certain progress was made in the fields such as information exchange, research and capacity building. We would like to note the contribution the WHO European Center for Environment and Health made to this activity. However, we still have to make substantial efforts to identify, reduce and prevent negative consequences of climatic and other global environmental changes for population health as much as possible, and take adequate adaptation measures.

³ European Environment and Health Strategy. Communiqué of the Commission, addressed to the European Council, European Parliament and European Economic and Social Committee. Brussels, Commission for the European Communities, 2003 (COM(2003) 338 final).

7b. We recognize that climate is changing, and that the activity and frequency of extreme natural phenomena such as floods, hard heats and frosts can change in the future. Extreme natural phenomena that occurred recently caused serious medical and social problems in Europe, especially in cities. Such phenomena will further be additional problems for managing health risks as well as for providing safe operation of power supply systems and other infrastructures. For successfully solving the related problems, the governments, institutions, agencies and international organizations should take a proactive and multidisciplinary approach, and interactions of all stakeholders at all levels, from local to international, should be improved. Based on the document *“Response of public health system to extreme weather and climatic phenomena”*, we decide to take measures necessary to reduce the current burden of diseases caused by extreme weather and climatic phenomena. We suggest the WHO – through its European Center for Environment and Health – in cooperation with the World Meteorological Organization, European Environment Agency (EEA) and other respective organizations to assist to fulfill these commitments and provide coordination of corresponding international actions and measures. We decide to report on the progress made in this field at intergovernmental conference to be held at the end of 2007.

8. We welcome the efforts, made by business circles to improve their produce and manufacturing processes in order to reduce pollution and negative impact of their production on children’s health and environment. We suggest business circles to continue and intensify the activity in this direction, and thus contribute to population health improvement, consumer protection and environment conservation in cooperation with organizations, governmental bodies, local authorities, labor unions, other organizations uniting workers, and non-governmental organizations.

9. We are pleased to note the progress made in introducing integrative models and forward experience in the fields such as environmental sanitation and safety engineering to improve work conditions. However, we are anxious about that production factors continue to very significantly contribute to the rates of sickness, disablement and accidents. That is why we are intent on further development of the cooperation in this field between industrial circles and labor unions, and activate our efforts in further improvement of legal and administrative mechanisms in this field in cooperation with the respective authorities with a special attention to liquidating any forms of child labor that pose a threat to children’s health or well-being.

10. We recognize the necessity of high-quality and independent research activities in environment and health, owing to which policy making can be based on actual data. We recognize the active role of the WHO, European Commission and European Scientific Fund in carrying out reviews of newly formed scientific data in health and environment. It is also necessary to give a special attention to carrying out researches in methods for developing guidelines and defining examples of advanced experience in health and environment. We confirm the necessity to conduct high-quality researches as mentioned in the European Commission’s Environment and Health Strategy, including study of the impact of chemical substances on human health. We suggest respective institutions (including the European Commission) and member states to prioritize conducting researches in health and environment.

11a. We note the fact that at present a great number of chemical substances, the impact of which on health and environment is not known in many respects, is produced and put on market. These substances represent a potential danger to both working people and general public. It is necessary to take trenchant actions without putting off in order to bridge gaps in our knowledge about the influence of chemical substances on human health and provide sustainable development of chemical industry. The policy of the European Union in respect of new chemical substances (system of registration, evaluation and authorization of chemical substances - REACH) will be of a great benefit to all consumers, since it is intended to provide them with information necessary for taking adequate risk management measures allowing to prevent threats to human health and environment in future. We also call the industry to immediately begin gathering relevant information enabling to evaluate risk to health concerned with large-capacity substances.

11b. We once again confirm our approval of the decisions made at the WSSD regarding chemical substances and intended to introduce methods for chemical substances use and production that would allow to minimize their tremendous negative impacts on health and environment by 2020. We approve the activity of the United Nations Environment Program (UNEP) related to heavy metals, and a strategic approach to international chemical substances management, within the framework of which a special attention should be given to children health care.

11c. More attention should be given to chemical composition of goods and toys designed for children. So we call:

- *manufacturers*: to stop to market goods containing matters that have or can have a negative effect on children's health and environment;
- *respective guiding bodies*: to consider all legal measures and mechanisms that enable to regulate alarming phthalate content of consumer goods, especially of goods designed for younger children;
- *industry and respective authorities*: to evaluate the scopes of aromatic compounds use and their potential detrimental effect on children's health to minimize the application of sensitizing aromatic compounds.

12. We recognize the importance of correct assessment of economic damage concerned with various environment degradation levels, and especially assessment of those direct and indirect costs, which society incurs owing to treatment of environmentally caused diseases. We suggest the WHO, Organization for Economic Cooperation and Development, and European Commission to continue with other respective international organizations the efforts aimed at developing mechanisms, approaches and recommendations that help to solve these issues in order to make reliable appraisals able to maintain policy making and assist in determining foreground tasks.

13. We remind that the UNECE Protocol on strategic environmental assessment to the Convention on environmental impact assessment in the transboundary context⁴, adopted and signed at the 5th Ministerial Conference "Environment for Europe" (Kiev, 21-23 May 2003), recognize the benefit to health and well being of the present and future generations, which will be got if the necessity of public health care and improvement is regarded as an integral part of strategic environmental assessment. We undertake to take measures for that any considerable consequences for population health be properly taken into account in assessment of strategic proposals within the framework of the Protocol.

14a. We recognize that the factors such as available housing facilities, living mode of our population, direct environment around habitations, and social living conditions of citizens should be taken into consideration in developing sustainable housing strategies favorable for health. We also realize that many impacts of negative environmental factors taking place inside and outside the premises are concerned with inadequate state of habitation in all the countries of the Region. We take into consideration the Agenda adopted at the United Nations Conference on Settlements (Istanbul, 3-14 June 1996), and the next work program of the Commission on Sustainable Development ahead, which focuses on the aspects such as water supply, sewage disposal and settlements development (including the issues such as sustainable urban planning and development, habitation health, living conditions).

14b. So we are intent on taking actions, within the powers conferred by our national governments, to ensure that health and environment issues be always in the center of attention in making all housing strategies (from housing construction and reconstruction plans, programs and strategies to adequate constructional materials use issues) and that healthy conditions be provided and kept in the existing residential buildings. We undertake to contribute to making and

⁴ Turkey asks to consider her abstaining from approving this point of the Declaration since she did not sign the Convention on environmental impact assessment in the transboundary context.

strengthening of housing policy that provides meeting of particular needs of poor and unhappy groups of population, especially when children's health is threatened.

14c. We call to launch initiatives and programs aimed at providing national and local authorities in all the countries of the region with recommendations and guidelines in regard to integrating environment health issues into housing policy. We call the WHO and European Commission together with other respective international organizations to make efforts within their powers to achieve this goal. We undertake to promote and develop cooperation with a large number of authorities at all levels of public administration to work out strategies and guidelines in respect of housing and man-made environment, ensuring that attention be given to disease prevention and health promotion as much as possible.

15. We remind of secondary decisions and initiatives on energy taken at the 26th Summit of leaders from the eight largest industrialized countries (Big Eight Countries) in Okinawa, Japan, July 2000, decisions on energy made at the WSSD, and secondary initiatives taken during and after the Summit in Johannesburg, September 2002 and 5th Ministerial Conference "Environment for Europe" in Kiev, Ukraine, May 2003. We will continue our efforts to make for that each household in the European region would have reliable, efficient and low-cost energy resources necessary for providing daily vital activity. We will stimulate sustainable and proper renewable energy resources use (such as hydro, wind, solar and biomass power). We activate efforts even greater, and will cooperate with other respective sectors in order to reduce the risks to population health related to energy generation, transportation and distribution. We recommend that the WHO and other respective organizations, within their powers, to observe the progress of the situation in this area, carry out monitoring over the progress in reducing disease burden, and present a report on the results achieved at the intergovernmental meeting at the end of 2007.

Tools for policy making

16a. We acknowledge the necessity of Social Sanitation Monitoring Information System (SSMIS), which is an important tool that contributes to policy making in this field, helps to define priorities on the basis of available actual data, improves the access to information, and promotes public relations support and communication processes. We recognize that creating a well-designed SSMIS will ease making comparisons between countries and regions, and help to provide effective resources use by optimizing accounting procedure at national and international levels, improving the sequence of conducting various assessments and avoiding doubling of the efforts made in this field.

16b. We greatly appreciate the work done by the WHO European Regional Bureau, European Commission and EEA in respect of creating a methodological basis for selecting key human environment health indicators, which should be used in combination with appropriate assessment and reporting mechanisms.

16c. Social sanitation monitoring information system should:

- help to identify and prioritize environmental health problems prevailing in the countries of the Region, and further quick assessment of emergency situations and taking adequate measures to eliminate their consequences;
- provide opportunity to monitor consequences of the taken actions;
- provide a timely access to information and assist to develop and implement strategies in respect of information, propaganda and enlightenment activity;
- use standardized methods for data gathering, processing and dissemination in order to provide opportunity to make interregional and international comparisons and analyze time dynamics of indicators;

- initially rely on available information and gradually progress on a scientific basis and in view of strategic needs and available material and technical resources along with taking measures that provide reporting process optimization;
- include such system elements as monitoring and statistic data, health and sustainable development indicators, assessment and reporting, including information on respective strategies, actions and projects.

16d. We approve the initiative on making framework plan for creating a SSMIS comprising the following elements:

- creating national and international mechanisms for selecting and confirming elements of this system;
- creating an international guiding body that will consist of representatives of countries and key international organizations, provide planning, coordination and evaluation of programs, and submit appropriate report at the intergovernmental Conference in 2007;
- developing and updating guidelines if necessary, and carrying out initiatives, aimed at personal training;
- creating a network grounded on the cooperation of local, national and international agencies for exchange of information and expert knowledge, based on the existing organizational and technical infrastructure.

16e. We once again acknowledge the necessity of SSMIS, and undertake developing an action plan for creating it, including forming necessary partner network for it. We suggest the WHO and European Commission to join the activity in respect of creating a pan-European SSMIS together with other respective organizations and agencies, including EEA, UNECE and UNEP, in accordance with their powers. We call these organizations to contribute to forming this information system. We will stimulate inter-sectoral, inter-departmental and inter-agency cooperation (including beyond health and environment sectors) in our countries in support of the pan-European SSMIS. We suggest the WHO, EEA and European Commission to develop elements of the united information system, and, in particular, continue the activity in respect of developing and improving environmental health indicators, related data sets and united information infrastructure. We will report on the results of the activity in this direction at the intergovernmental meeting to be held at the end of 2007.

17a. We realize that long-term thinking, transparency and considerable democratic participation of all stakeholders in decision making are necessary for effective public health care and environment protection. We recognize that any potential delay in eliminating supposed danger to health can have detrimental consequences for public health, especially for children who are more vulnerable in respect of some dangerous environmental factors. However, we often fall into the situation when our scientific knowledge about environmental risks to health are is not enough. In the context of environmental policy making, we recognize the fundamental importance of the Rio-de-Janeiro Declaration on Environment and Development adopted in 1992, which says that “in the cases when there is a threat of a serious or irreversible detriment, the lack of complete scientific confidence should not be used as a reason for delay of taking economically effective measures to prevent environmental health deterioration”, and the Communiqué on Precaution Principle (COM(2000)1 final) published by the European Commission in 2000. We acknowledge the importance of precaution principle as one of risk management mechanisms, and so we recommend to use it in those cases when the possibility of a serious or irreversible detriment to health or environment is identified, and when the results of scientific analysis based on available data are not enough to define the existence of a real risk or assess its level, but are considered sufficiently convincing to pass from the position of inactivity to the implementation of any strategic actions.

17b. We are pleased to note the work done by the WHO in respect of developing a precaution principle and in view of diverse aspects related to the application of this approach. We recognize the document titled “Actions in the context of uncertainty: how can the approach based on precaution principle help to protect the future of our children?”, prepared by the WHO. The approach proposed in this document of WHO directly relates to all the aspects of risk assessment, management and information, and can be based on the following simple steps and strategic actions:

- improving respective scientific mechanisms and broadening their scope;
- raising decision making transparency and enlarging a circle of the concerned parties involved in decision making, and a number of factors taken into consideration at that;
- strengthening our capacity that enables to identify early signs of risks;
- founding research and education programs helping to bridge gaps in knowledge;
- developing and introducing models of more secure and cleaner production and sustainable consumption.

17c. We call the WHO to provide development of guidelines for how to find more optimum ratios between costs and benefits concerned with measures for environmental sanitation, taking into account population health improvement and other advantages, on the one hand, and assumed costs and possible legal restrictions and obstacles on free trade, on the other hand.

18a. We acknowledge the importance and necessity of public awareness of environment and health, especially when the matter concerns the interests of children and other vulnerable groups. We also emphasize the importance of children participation in the activity that is of a vital importance for their health and environment, and the necessity to involve them in this activity. We suggest international organizations to help in this field, including by supporting the efforts aimed at fulfilling obligations stated in the Aarhus Convention on the Access to Environmental Information and Public Participation in Environmental Decision Making⁵ as well as by developing guidelines for informing the public and professional circles of risk factors. These principles will serve as an important tool helping to raise awareness of both employees of diverse sectors and the public as a whole in regard to environmental health.

18b. We realize that within the framework of training and informing specialists in environment and health and decision-makers, they should obtain more knowledge about present-day methods and concepts in respect of health and environment than it was done to this day. We accentuate the necessity of solving these problems in developing and implementing future programs for training of all medical workers, especially in view of such process as permanent harmonization of medical education. We also note the necessity of that other professional categories receive adequate information on health and environment and interrelations between each sector and this field of activity. We also induce all the parties to take measures for preparing and disseminating written and audiovisual materials that can be used as training appliances, especially on the issues related to children’s health, by using suitable mechanisms.

18c. We call the WHO in cooperation with the other concerned parties to develop recommendations on information and propaganda, education and training activities in the field of health and environment, especially in respect of children health care, and set up a network of specialists and propagandists in environment and health in order that general public always has an access to reliable and useful information.

⁵ Turkey asks to consider her abstaining from approving this point of the Declaration since she did not sign the Aarhus Convention.

European action plan «Environment and children health»

19a. We highly appreciate growing efforts undertaken by WHO directed at healthy future for our children including establishing «Alliance for healthy environment for children» and efforts undertaken by WHO European Bureau in ecologic factors impact on European children health. We also note efforts undertaken by European Commission at significant ecologic threats reduction for infant population through development and introduction of new strategies and legal acts in sphere of environment and children health.

19b. We accept European action plan Мы принимаем европейский план действий «Environment and children health» (ECH) and confirm our determination to fulfill regional priority tasks included in ECH. We will undertake all measures to realize effectively plan's strategies at national level.

While fulfilling these tasks, we will direct our attention to table of actions to be included in national action plans. This table was developed by WHO together with states-members, interstate, international and non-governmental organizations. We take responsibility for reporting at interstate meeting at the end of 2007 organized by WHO and next ministerial conference in 2009. Upon this review we will discuss possibility of this tool development. .

19c. We recognize that ECH plan like European action plan for 2004-2010 will promote threat to children health reduction though undertaking measures with active children participation. We call for further integration of both above plans for their more effective implementation.

Specific needs of CIS states and South-East Europe countries

20a. We note closer cooperation between ministries of health within CIS. We greet ministries' initiative in sub-regional plan of concerted actions preparation at international level. We note also efforts undertaken in ecologic strategy elaboration for countries of South-East Europe, Caucasus and Central Asia (ecologic partnership in the region of UN EEC) and measures on achievement of ecologic strategy objectives.

20b. Simultaneously, we are alarmed by data presented in the second part of report «Health and environment in WHO European region: state-of-art and policy development in XX1century» showing that on many territories there is no significant progress in this direction. We take responsibility for strengthening efforts directed at environment improvement in CIS states and South-East Europe countries.

20c. We suggest WHO and European Commission jointly with UN EEC and UNEP, regional ecologic centers and international donors to establish effective mechanisms of financial and technical assistance coordination in order to stimulate legal and institutional reforms, strengthen country potential and reduce ecologic impact on children health.

We take obligation to support relevant partnerships and other initiatives in the region (South-East Europe, Caucasus and Central Asia) within the framework of European Union program «Water for life».

20d. We suggest WHO European regional bureau to support initiative in sanitary-epidemiologic services strengthening and public health services establishing in these countries. We recognize that such reform will significantly contribute to in Budapesht conference resolution realization.

Future development of process «Environment and health» in European region

21a. We welcome data included in third part of report «Health and environment in WHO European region: state-of-art and policy development in the beginning of XXI century», in particular we note with satisfaction that this process positively influenced on undertaken in Europe measures on environment and health.

We recognize positive role, which ministerial conference and international meetings play in information exchange and partnerships creation that helps us to fulfill our international obligations. Taking into account above mentioned, we support recommendations made in this report and intend to use potential of the process «Environment and health».

21b. WE express agreement to meet again at fifth European ministerial conference in 2009. We suggest carry out interstate meeting by the end of 2007 for midterm review. We understand that such mechanism requires additional human and financial resources to provide its sustainability. That's why, we take obligation to submit human and financial resources for conference's recommendations fulfillment and cooperation strengthening.

21c. We worry about health issues integration into national and international sustainable development initiatives, strategies and action plans. We will use all existing potential of our national sustainable development commissions for this purpose achievement.

21d. We also recognize necessity of cooperation with process "Environment for Europe" based on fifth ministerial conference "Environment for Europe" (Kiev, 2003) as well as other European initiatives.

21e. We suggest WHO and European Commission to strengthen and widen cooperation in taken obligations fulfillment effectively using human and financial resources.

WHO European center's role in environment and health protection

22a. WE note that since European centre of environment and health establishing (according to recommendation of first ministerial conference in Frankfurt, 1989), environment and health issues became draw attention of decision-makers and scientific community.

We express repeatedly our gratitude to the governments of Italy and Germany for financial support to WHO. We satisfy with job done by European centre.

22b. WE consider that Centre creates new opportunities for effective states' needs satisfaction due to more access and better understanding of their cultural and legal needs.

We recognize also that centre ensures direct access to services presented by WHO European Regional Bureau.

22c. That's why, we recommend that WHO European centre of environment and health follows up provide states-members with data helping develop environment and health protection policy. We call upon other states to join Italy and Germany in Center activity support. We suggest European Commission fully use Centre expert knowledge and technical services. We suggest WHO to follow up expert resources adaptation to the region changing needs.

European Committee role in environment and health protection

23a. WE recognize European Committee significant contribution in international partnership in environment and health protection and conference preparation.

23b. We have taken decision to continue EC term for next 5 years and increase number of states-members up to ten for adequate geographic representative. We suggest that Centre continues its activity in accordance with work plan and annually reports to WHO Regional European Committee and UN EEC. We suggest WHO to perform Centre Secretariat functions and organize its first meeting by the end of 2004 as well as organize participation of states non-members.

23c. We suggest WHO Regional European Bureau, UN EEC and their secretariats to consider this declaration and its recommendations and take measures on high priority of environment and health protection issues.

23d. We call upon WHO to take necessary measures to support "Environment and health" process and to give high priority of environment and health protection issues.

23e. We hope that WHO jointly with UNEP will take necessary measures on environment and health protection at global level.

WE, undersigned on behalf of all ministers of health and environment in WHO European region, jointly with director of WHO Regional European Bureau with participation of European Commission commissioners confirm obligations taken at previous conferences and will support above initiatives.

Minister of Public Health and Family, Hungary,

Co-Chairman of Fourth Conference on environment and health

Director of WHO Regional European Bureau

Minister of Environment and Water Resources, Hungary

Co-Chairman of Fourth Conference on environment and health

VI INTERNATIONAL CONGRESS «WATER: ENVIRONMENT AND TECHNOLOGY» EQUATEC-2004

VI International Congress «Water: environment and technology» (EQUATEC-2004) was held in Moscow on June 1-4, 2004.

There were 1200 delegates from 25 countries, international and national organizations including financial, regional and municipal bodies, water-related scientific organizations, companies and firms.

Sub-section «Aral sea basin» was organized with participation of prof.V.A.Dukhovny, A.G.Sorokin, I.B.Ruziev, V.G.Prihodko, M.M.Sarkisov and R.A.Geniyatullin. Participants noted that ICWC efforts promoted regional cooperation in water resources management. This allowed both avoid water-related conflicts and develop common approaches to water resources development and management including:

- Transition to integrated water management
- Water conservation and productivity increase
- Creation of shallow water bodies system in Priaralie to protect delta from desertification and bio-productivity restoration
- Northern sea creation and Syrdarya delta rehabilitation.
- Participants noted with gratitude GEF, NATO, INTAS, WB and ZEF financial support.

RESOLUTION OF VI INTERNATIONAL CONGRESS «WATER: ENVIRONMENT AND TECHNOLOGY» EQUATEC-2004

General information

VI International Congress «Water: environment and technology» (EQUATEC-2004) was carried out on June 1-4, 2004 in Moscow. More than 1450 delegates from international and national organizations including financial, regional and municipal bodies, water-related scientific organizations, companies and firms took part in this congress. More than 470 presentations were heard and discussed. On technical exhibition 525 firms from 126 countries were presented.

Congress kept thematic direction and inter-disciplinary approach to water resources assessment, water supply and disposal issues, monitoring, impact on population health and well-being.

Congress structure consisted of range of interconnected events: section «Water resources» (with sub-sections «Surface waters», «Aral sea basin» and «Ground waters», «Economy and right in water use sphere», «Water objects monitoring», «Extraordinary situation preventing and liquidation», «Water supply» and «Water disposal»); conferences: «Investments, economy and management in water supply and -sanitation», «Sustainable water sector and health», «Water quality analysis and control methods»; workshops: «Pipeline laying and readjustment», «Automation, energy saving and information technologies in water supply and sanitation», «Water treatment energy-information technologies and its biologic properties», «water bottling». Round table was also carried out «Water treatment for industry and power engineering; national water days of Germany, Great Britain, the Netherlands and Finland were carried out.

Verification section

During discussions wide range of issues was considered including:

- Water resources current state and forecast, rational use and protection, management and ecologic standards, water-ecologic crises, hydrologic modeling;
- Municipal, industrial and agricultural water supply state-of-art and future development, water treatment technologies, water supply systems construction, operation, automation and control;
- Common ecologic and technologic issues of water disposal, water treatment technologies and methods, wastes removal and disposal;
- Automation, power saving and information technologies in water supply and sanitation;
- Draw-in method of pipeline laying in water supply and sanitation, their use experience in Russia, equipment and materials;
- Macro-economic and legal peculiarities of current stage of water supply and sanitation system development and modernization, legal and social-economic effectiveness increase, planning and regulation, licensing;
- Main directions of normative-legal base development, investments and private sector involvement, management and capacity building, information provision;
- International and Russian financial organizations activity in investments issues, risk assessment and management, guarantees of payback;
- Methods of analysis, certification and water quality control;
- International and national activity development in negative water impact on population, hygienic requirements to water quality and their harmonization at interstate level;
- Perfection of water quality social-hygienic monitoring and methodology of epidemiologic geo-information analysis, risk analysis and damage from water biologic and chemical pollution definition, scientific approach to analysis of global climate changes impact on population health;
- Sanitary-hygienic aspects of water treatment technologies perfection;
- Drinking and mineral water quality assessment criteria, indicators and normative, new technologic solutions in water bottling;
- Water biologic properties after power-information processing, experience in water treatment, treated water use for population health improvement and life expectancy increase.

Having heard and discussed reports and presentations participants note:

1. EQUATEC-2004 is being carried out in conditions of water issues aggravation and water factor's meaning increase. On background of global climate change, anthropogenic pressure on water objects growing, extreme events strengthening and water factor impact
2. At the international level, large international organizations activity is continuing connected with water issues aggravation. In this connection, EU Global Water Initiative «Water for life – health, well-being, economic development and security» proclaiming 2005-2015 «International fresh water decade». One from this initiative's components for Eastern Europe, Caucasus and Central Asia includes urban water supply and sanitation, integrated water resources management, transboundary river basin and regional seas issues – most important aspects of current water-related activity solved in partnership with international organizations.
3. Aral sea basin riparian countries' efforts present an example of successful international cooperation. During 12 years this permitted both avoid water-related conflicts and develop common approaches to water resources development and management. Congress noted this initiative

support by GWP, NATO, INTAS, WB and ZEF. International cooperation in Dnepr basin is also developing successfully.

4. Russian water sector is changing in legal and economic aspects; new Water Code, water supply and disposal laws, drinking water law are under preparation. There are new participants in water supply and sanitation – companies in many regions of Russia that reflects investment climate change in Russia. Federal Water Agency should play important role.

5. During 2 years after EQUATEC-2004 new findings, technologies and equipment appeared. New native and foreign companies came to CIS market, water bottling is developing successfully. .

6. National program «Development of Russian water sector» was considered by the State Council (Rostov-on-Don, 03.09.2003), during which main directions and mechanisms of solution are defined in accordance with President's commission. Main stages of water sector development (up to 2010) and action plan were defined. This problem is reflected also in All-Russian Water Congress (Moscow, 2003). Basic sector programs «water resources and water objects», «Volga restoration», «Baikal lake protection», «Environment and natural resources of Russian Federation (2002-2010) as well as «Russian South», «Far East and trans-Baikal», «Municipal sector reforming», «Drinking water supply», «Protection from water negative impact. All this activity allow hope for overcoming growing gap between Russia and USA, Eastern Europe and Japan in new water use technologies as it was shown on Melbourne Global Water Congress in April 2002.

7. In Russia, significant efforts are made for realization of «Protocol on water and health issues to EEC concept on transboundary watercourses and lakes use and protection». Activity of scientific-research institutes facilitated water quality assessment base improvement, its harmonization with international standards, modern microbiologic criteria. Medical-ecologic investigations were also developed.

8. World scientific sources, official data, Congress proceedings witness about widening and deepening of notion about pathogenesis factors' meaning. High level of intestinal diseases, hepatitis, carcinogenic and mutagenic, life expectancy reduction and high mortality (especially infant mortality) are caused mostly by water of poor quality. Growing anthropogenic pressure on water systems requires energetic actions. Special attention should be paid to global climate change and its impact on population health.

9. Along with above, congress proceedings witness about necessity to undertake measures on surface and ground water protection from contamination and unauthorized wastes release localization.

10. Discussions verified that changing social-economic conditions require scientific research in water rational use, especially in water supply and disposal. Chaotic funding distribution, lack of competition for young scientists, use of mediators between customer and executor limits purposeful research funding, skilled specialists' attraction and maintaining.

11. Economic regulation in water resources rational use and protection remains behind current economic relations. Existing economic mechanism doesn't provide water-related activity financing and economic incentives for water rational use. There is no financial flows' distribution for water resources' re-production that should be a half of collected water fees.

12. Congress participants underline that effective economic mechanism availability is necessary condition for water sector development. Developed methods of economic regulation must be a base for economic relations legal regulation. It is necessary to develop economic mechanism in water use sphere based on principle «water pays for water» and providing water sector financing and economic incentives.

13. Participants considered it necessary to draw attention to the government, territorial bodies, industrial and research organizations involvement in solution of paid water use and economic mechanisms issues. Nevertheless, activity in this direction should be intensified. At that, it should bear in mind that there is no single governmental body responsible for drinking water quality. At the same time, process of decentralization and privatization in water sector is started. World experience shows that only strict federal control provides satisfactory ecologic security and population health protection.

14. Participants expressed their anxiety about purposeful water fees use, availability of many privileged water users and low tariffs, uncompleted water legislation relating water use economic mechanisms, absence of insurance and risks compensation, innovation and Russian legislation harmonization with European Water Directive (especially for transboundary water objects).

15. Participants underlined that water resources protection is high priority for water sector. It is necessary develop scientific and technologic provision, economic-organizational and legal mechanism.

16. Congress proceedings confirm that main principles of modern water resources protection strategy include:

- basin approach to environment use and protection;
- priority of biosphere vital functions;
- principle «Polluter pays» should be realized both in separate water subjects and within watershed boundaries with regard to transboundary negative effect on environment;
- water protection legal provision;
- necessity of «Schemes of water resources complex use and protection» development and their scientific-methodological provision;
- account of regional features during water protection programs development;
- perfection of ecologic education.

17. Analysis of presented reports shows that it is necessary to revise existing legal base of wastes releases, which doesn't prevent pollution that negatively impacts scientific-technical progress in this field.

18. As to population water supply, ground water becomes more and more important source. Creation of strategic fresh water supply is fixed in «Main provisions of state policy in depths' utilization» (approved by the government on 21.04.2003, № 494p). Ministry of Natural Resources has developed strategic program of fresh water geologic study, reproduction and use for 2004-2010. Fresh water reserves are being created for some cities, ground water share in drinking water supply increases.

Simultaneously, presently more than 550 cities and settlements have no protected fresh water sources. Rural water supply based in many regions on the first aquifer use, which is not protected from pollution. Methods of ground water treatment from some micro-components are poorly developed.

19. It worth to note unsatisfactory level of extreme situation (flood, peak flow) forecast, low effectiveness of the world experience utilization. With new ownership appearance hydraulic structures safety is very important issue. Oil companies are not enough responsible for oil products releases. The same can be said about control bodies, which give licenses and agree projects.

20. Water objects' monitoring topical issue is creation of complex monitoring systems within the region or river basin. There is still a gap between data collection and analysis on one hand and water resources management on the other. Automatic monitoring systems are being introduced slowly.

There are no databases in most water organizations, gap between surface and ground water monitoring is still big. Ecologic risk assessment and management on base of monitoring is only started.

21. Firstly, water treatment power-information technologies consideration was included in such large water forum. Different water treatment methods' advantages are shown. Results obtained witness about possibility of some technologies to impact water biologic quality through water molecular structure change. Congress draws attention to the fact that in XXI century physical methods of water treatment form perspective direction in water treatment and disposal.

Recommendations and proposals

Recommendations and proposals relate to the countries with economy in transition, in particular Russian Federation.

1. Congress participants underline topicality of provisions formulated by previous EQUATEC forums:

- overcoming extremely negative phenomena in water resources rational use and protection requires further efforts for effective water policy formation. It should be built on human right on safe water;
- state water policy should be based on notion that water is inseparable part of economic complex and the nature. Strategy of water resources management should be inseparable part of the ecologic security strategy.

2. Participants consider water protection program as high priority. It's high time to prepare national water supply and disposal programs. This program should be complex taking into account both surface and ground water collection and treatment.

3. Water standards should be quickly developed in order not to prevent new technologies introduction in water supply systems.

4. In connection with "Drinking water" standard acceptance, it's necessary:

- carry out survey and assessment of existing treatment plants;
- staged replacement of aged systems and facilities;
- increase treatment efficiency at expense of new reagents-coagulants application and treatment plants' design improvement;
- application of water treatment complex methods based on modern and advanced technologies, especially for sources with high anthropogenic pollution;
- development of new technologies for natural and wastewaters treatment on base of modern scientific achievements;

5. For population drinking water supply from ground sources participants recommend:

- intensify groundwater exploration in first line for cities and settlements not having ground water supplies;
- assess earlier explored groundwater deposits and possibility of their development with regard to modern water, ecologic and sanitary conditions;
- strengthen water protection activity including sanitary protection zones arrangement;
- harmonize water legislation requirements with ground water exploration, use and protection;

6. taking into account that most acute water-related issues have legal character, Congress recommendations relate mostly these directions.

6.1. Congress participants consider necessary to apply to Russian Federation Government with request to foresee:

6.1.1. Development and approval of normative documents related to:

- order of water organizations' debt restructuring;
- municipal property;
- investment agreements taking into account that privatization should be carried out in parallel with investment, concession and delegated form of management application;
- tariff regulation in water supply and sanitation.

6.1.2. Include some amendments in existing and developed laws:

- in new Water Code – new article «Responsibility of water object's owner» in following edition: «While diverting water from source with bad quality for drinking purposes water shouldn't be paid (if water user doesn't pollute source himself»).
- in Water Code and Federal Law «About charges for water object use» funds allocation over all budget levels including local one;
- in Water Code – provision recognizing vodokanals' activity on water treatment as water protection one;
- acceleration of Federal Law acceptance «About payment for negative impact on nature», excluding contradictions between Government provision № 632 and Federal Law «About environment protection».

6.2. Congress applies to the parliament with proposal to maintain payment for water objects' use for water resources development and protection.

6.3. According to President Decree dated March 9, 2004 № 314 «About federal executive power» participants consider necessary to ask Russian Academy of Science to take part in state water policy.

6.4. Congress draws Agency of Water Resources' attention to necessity of regions and their water-related systems' development forecast perfection to use them in «Schemes of complex water resources development and protection», to study and introduce market mechanisms in water sector.

6.5. Participants apply to local power with request:

- to consider plans of financial rehabilitation of water-related enterprises;
- to carry out inventory of local budgets' debt to water-related enterprises and develop plans of paying back;
- to prepare proposals on private sector and investments involvement for main assets reconstruction and replacement.

7. To perfect existing monitoring system taking into account real water sector economic potential, Congress consider expedient to distinguish several pilot monitoring projects within a basin or federal subject. Within these projects modern information and monitoring technologies should be realized. Methodology of ecologic risks should be also tested including extreme ecologic situations and different ways of their management involving foreign experts if necessary.

Consider expedient to carry out in 2005 conference (or school-workshop) «From monitoring to water objects management».

8. Congress supports recommendations of Department of Construction of the Ministry of Industry and Power addressed to vodokanals:

- prepare specific plans of their enterprises' sanitation with regard to existing legislation and expected laws;
- develop production and investment programs and approve them in municipal bodies;

9. Water quality analysis permits to recommend:

- to make water quality methodological base compliant with existing normative documentation;
- to consider expedient regional drinking water quality normative consideration, first of all, for natural microelements;
- to consider possibility to include virus pollution in inventory of drinking water quality indicators;
- to carry out within EQUATEC-2006 workshop «Summarized water quality indicators».

10. In the area of flood prevention Congress recommends to create complex program of these events and their consequences forecast on base of wide range of scientific-research institutes and ministries. It is useful to apply foreign experience, for instance, US Tennessee basin administration (TVA). It is necessary to establish center for risk assessment and forecast.

In order to increase responsibility for extreme situation on water objects, participants recommend introduce declaration of hydraulic structure and dangerous industrial enterprises safety and civil responsibility insurance for water supply system damage.

To mitigate extreme events and terrorist attacks consequences, reserve water supply systems should be created as well as polluted objects recovery and water objects' protection should be organized.

11. It is necessary to develop policy of interaction between water sector and oil industry in the field of water pollution by oil products (project coordination, licensing, agreement on production division, etc.). It is necessary to introduce automated monitoring systems within high ecologic risk zones, systematize native and international experience making it accessible for relevant organizations. Special attention should be paid also to ecologic aspects of gas transport where gas pipeline crosses river or other water body.

12. Following most important directions of scientific-applied research are recommended:

- perfection of existing and development of new methods of control over structural changes in water associates;
- development of classified indexes of structural re-construction;
- further systematization of data on isotope hydrogen-oxygen composition of treated water;
- deep study of biological impact and ecologic-hygienic regulation of heavy hydrogen and oxygen content in water;
- system study of biologic impact of water associates on animal, vegetable and cellular organisms with regard for possible power-information technologies rational utilization.

General conclusion

EQUATEC-2004 Congress and exhibition witness about growing interest of national and international organizations, companies and firms to this event as a main water forum in Russia. Hearing and discussions confirmed global character of water-ecologic situation aggravation, deepening water deficit, growth of population morbidity under water factor.

Noting significant efforts of international, governmental and non-governmental organizations, Congress participants consider necessary to strengthen social direction of water policy in countries with economy in transition.

National program "Development of water sector in Russia" is most important stage in overcoming crisis in this sector. All organizations' efforts should be consolidated to perfect mechanism of state policy realization in water sector related to water resources development, use and protection in accordance with market conditions. On this base it is necessary to achieve improved water sector financing, water resources economic assessment as most important national security factor.

Congress proceedings confirm significant scientific, technical and production potential of water sector. This potential strengthening is most important state obligation. At the same time, Congress participants express concern regarding legal base of water sector economy, weak innovation processes and youngsters involvement in the scientific research.

Noting big importance of experience sharing with developed countries' specialists, participants underline usefulness of advanced international expertise utilization for overcoming crisis situation.

EQUATEC-2004 participants demonstrated new technologic and technical solutions in water use and protection, facilitated widening market of equipment and services.

Following tradition to carry out regular international forum (once in two years) next congress is desirable to be conducted in Moscow in 2006.

Participants expressed their gratitude to national and international governmental and non-governmental organizations for their support.

High level of EQUATEC-2004 Congress is result of organizing committee hard job.

Special gratitude is expressed to sponsors providing necessary financial support of the forum.

Given resolution is accepted at Plenary session on June 4, 2004.

GLOBAL WATER WEEK IN KUALA-LUMPUR, MALAYSIA, 7-14 JUNE, 2004

Malaysia Water Partnership has organized in Kuala-Lumpur Global Water Week with participation of 380 persons from 51 countries. From Central Asia and Caucasus three persons were presented: V.Sokolov (CACENA TAC Chairman), O.Kirakosyan and Ya.Pulatov (CACENA TAC members).

Scientific workshop and range of events were organized within Global Water Week, among which annual partners' meeting was most important.

PROJECT «INITIATIVE FOR WATER POLICY STUDY»

Upon CIDA and McGill University invitation, prof.V.Dukhovny visited Canada for negotiations and participation in two meetings: political advising project "Initiative for water policy study" in Ottawa and Executive Committee of Water Research in Montreal on June 14-21, 2004.

At the meeting open discussion took place among scientists from Europe, USA and Israel about necessity to monitor and predict water related processes in modern society. Canada is good example of this. Detailed report will be published in next ICWC Bulletin.

Executive Committee meeting was chaired by Mr.Aly Shady jointly with Executive Director Mr.B.Dzyagilevsky. Main attention was paid to youth involvement in initiative and regional commissions' activity. Association issues well known journal "Water International" with 2000 copies circulation.

Executive Committee prepares XII Congress in India in 2005. D-r Matur (India) reported about congress preparation.

SIC jointly with GWP should discuss following issues:

- Cooperation between Canadian scientists with governmental organizations in perspective regional and national water policy development on base of Canadian experience;
- Strengthen information about Association activity and involve young scientists in this activity;
- involve association in regional conferences conduction;
- popularize involvement of participants in congress in India taking into consideration its role in global young scientists' exchange.

At the meeting in CIDA with participation of Caucasus and Central Asia Department Director Mr.Luce Furche (Madramootoo, Baker, Dukhovny, Polen) Training Center's activity was reported in accordance with CIDA request. Canadians were satisfied with report submitted. TC meaning as round table for opinions exchange, advance experience dissemination and investment attraction was underlined. Activity in Tajikistan and cooperation with SDC in climate change pilot studies were considered.

Mr.Luce Furche underlined importance of agreement between riparian states for cooperation strengthening.

Because CIDA agreed to support ICWC members participation in Moscow ICID congress, it is foreseen:

- organize workgroup for the Aral sea basin meeting as one day session;
- ask ICWC members to think over what issues could they arise on this session.

CIDA representatives and other donors will take part in this session.

SIC ICWC will prepare brochures and stands illustrating ICWC activity in this region.

PERSPACTIVES AND POSSIBILITIES OF IWRM PRINCIPLES INTRODUCTION IN AMUDARYA BASIN

On 10-13 May 2004 in Urgench ICWC TC Branch ordinary workshop was held «Perspectives and possibilities of IWRM principles introduction in Amudarya basin».

Main goal of this workshop was acquaintance with IWRM principles and possibilities of their introduction.

Workshop was carried out under CIDA support. BWO "Amudarya" Yu.Hudaibergenov opened workshop. Prof.Ye.Kurbanbaev (ECO Priaralie) and V.Prihodko (SIC ICWC) were moderators. Issues of transition to hydrographic principle of water resources management was considered.

Participants' attention was drawn to the following problems:

- water account;
- WUA functioning;
- land reclamation state improvement as water saving factor.

Transition to integrated water resources management is impossible without their rational use. For this good water account is needed. Presently, in Uzbekistan transition from shirkats to private farms is underway. Multitude of end water users appeared. Many farmers don't pay attention to land reclamation, irrigation and drainage network state. It is necessary to train farmers in water account.

Special participants' interest was expressed to IWRM legal aspects. It was noted, that water users should be informed about water legislation, international water laws, conflict resolution in water use. Transboundary water management is aggravated by absence of agreements on water allocation between riparian states.

Workshop participants consider that IWRM should take into account regions and states' priorities in social-economic development and ecologic security.

From this position, IWRM under economic reforms in agriculture foresees transition from administrative to more democratic method based on effective, system approach, partnership, mutual responsibility and directed at maximum water productivity and minimum water losses.

Participants noted that their participation helped them realize all water users' issues in lower and middle reaches and measures necessary for transition to IWRM:

- start work on gauging stations rehabilitation;
- train water users in water account;
- provide WUA and primary water users with water metering equipment;
- introduce advanced foreign experience in water saving;
- involve scientific potential in practical activity.

ABOUT PROJECT 'IWRM-FERGHANA' ACTIVITY

On May 12-19, 2004 in WUA "Zerafshan" (Tajikistan), WUA "Akbarabad" (Uzbekistan) and WUA "Zhupalak" (Kyrgyzstan) two workshops were carried out by project executors:

- in IWRM role and objectives;
- Training WUA managers, water users and canal water council staff training in water disputes resolution.

Workshop was attended by 102 participants including WUA chairmen, directors and specialists, farmers and arbitrary commission members. Presentations were made by M.Pinkhasov, A.Satybaldiev, A.Alimzhanov, R.Masumov, R.Nazarov and M.Yakubov.

V.Sokolov presented report "IWRM principles and transition to their realization";

M.Pinkhasov presented report "Issues solved by WUA in IWRM";

R.Nazarov and M.Yakubov presented report "Approach and strategy of social mobilization under transition to IWRM";

A.Alimzhanov presented report "Preparation of water use plan at WUA level;

R.Masumov presented report "Water account under IWRM in pilot objects of Ferghana valley".

At the second workshop following presentations were made:

M.APinkhasov –Methods of water disputes resolution;

M.Yakubov –legal base of WUA functioning;

A.Alimzhanov – Principles of water allocation and supply used in WUA and conditions of agreement on water delivery fulfillment;

R. Nazarov – Water users' informing about water allocation and supply.

During workshop water related disputes issues were considered, their registration, terms and competent bodies.

A.Satybaldiev in his presentation noted that workshops were organized and carried out at high professional level. He expressed hope that all participants now can work in their positions more effectively.

METROLOGICAL SERVICE PREPARATION AND ACCREDITATION IN WATER DEPARTMENT OF KYRGYZ REPUBLIC

In accordance with Kyrgyz Republic provisions:

- «About water» dated July 21, 1994 establishing paid water use (Section I, Article 3; Section II, Article 11) and «metrological control of water resources» (Section II, Article 12);
- «About measurements' unity» dated March 12, 1996 establishing (Section IV, Article 13) «metrological services establishing is obligatory» (Section III, Article 11);

Institute “Vopdavtomatika i metrologia” performed preparatory work and is accredited by Kyrgyzstandart in water measurements competence in open water bodies (certificate № KG 417/1.09.029 dated 04.06.99, repeated certification – June 2004).

Next stage in metrological service establishing in Kyrgyz Republic was accreditation as accrediting body in metrology.

In result of preparatory work, institute “Vopdavtomatika i metrologia” meets National Accreditation System and is recognized Accrediting body in water sector (certificate № KG 417/AO.03 dated 18.06.2002).

In accordance with provision ГОСТ Р ИСО/МЭК 17025 – 2000 dated 01.04.2003, Law “About technical regulation basis”, Government Provision № 466 dated 24.08. 1999 “About national accreditation system in Kyrgyz Republic” institute “Vopdavtomatika i metrologia” since 2003 started metrological services at oblast and rayon level preparation to accreditation. During 2003 necessary documentation was prepared.

During 2000-2003 all main metering devices and their work samples (means of calibration) were developed, certified and introduced.

On May 18-21, 2004 in ICWC Training Center 32-hour workshop was carried out dedicated to World Metrology Day (May 20).

In workshop took part Zh.Bekbolotov, Water Department Director; A.A.Takirbashev, Water Department Deputy Director; V.V.Balikin, Kyrgyz National Institute of Standard; O.S.Makarov, PKTI “Vodavtomatika i metrologia”, etc.

Chief metrologists were given certificates for establishing and accrediting metrological services.

Chu basin administration is selected as pilot project for 2004; rest of administrations are postponed for 2005.

ABOUT ‘IWRM-FERGHANA’ PROJECT FULFILLMENT

Workshop “Adaptation of pilot plots to farmers’ activity sustainability development: structure, objectives and extension service activity” was held on June 9, 2004 for farmers of Sogd oblast (Tajikistan).

Workshop was opened by A.S.Satibaldiev, ICWC Training Center’s Osh Office head. He informed participants about workshop objectives and tasks. Sh.Muhamejanov presented report “Adaptation of pilot plots to farmers’ activity sustainability development: structure, objectives and extension service activity”. He explained extension service objectives and tasks, its activity,

farmers' problems and ways of their solution. Recommendations have been developed for 3 pilot farms in Sogd oblast on irrigation water rational use, water and land productivity improvement.

I.Abdullaev, IWMI senior specialist made presentation "Extension service in developing countries". He informed participants about extension service establishing and functioning.

Kh.Khojaev, oblast coordinator presented paper "Extension services development within WUA framework". He noted that presently upon agricultural reforms farmer is real owner and is responsible for production and faces many financial, organizational and juridical issues. Project results confirmed necessity of scientifically grounded approach (irrigation terms and norms, agro technical measures) and profit receiving. Extension service including agronomists, civil engineers and entomologists can help farmers.

Then discussion on extension service establishing and financing, composition (agronomist, civil engineer, lawyer, marketing specialist, etc.) took place. Issues of water account, water distribution order, irrigation system rehabilitation, credit receiving were considered.

A.S. Satibaldiev presented example of Kyrgyzstan in credit unions establishing within WUA and irrigation network rehabilitation at expense of credits. One from ways to solve these issues is co-operation.

Sh.Muhamejanov in his paper "Practical recommendations on effective irrigation water use" presented simplified method of irrigation terms and norms definition and water diversion volume based on daily evaporation. This information was accepted with high interest by farmers Technician B.Bokiev should collect information about daily evaporation and WUA "Zerafshan" A.Safarov must present this information to farmers' request. Each farmer is given tables reflecting methodology of irrigation terms and norms definition.

In result of agricultural reforming previous water use plan became invalid. A.Alimzhanov in his presentation "Water allocation among private farms" told about developed within the project water allocation method based on water users' applications.

S.A.Nerozin, consultant-agronomist reported about monitoring on demonstrative plots in Sogd oblast, agro-reclamation field passport and its use. Technologic map including soil-climatic conditions, agrotechnical operations, used machinery was presented.

Problem of fertilizers and chemicals application was considered separately.

A.Satibaldiev concluded workshop thanking participants and call upon cooperation with the project specialists, oblast executors and technicians as well as demonstrative plots' observers.

WORKSHOP ON WATER RESOURCES MANAGEMENT AT LOCAL LEVEL

Workshop on local water resources management was held on June 28-29, 2004. Workshop was carried out in two stages: practical with visit to Ak-Altin and Mehnatabad rayons of Syrdarya oblast and theoretical in Tashkent oblast (Chimgan).

Workshop organizers MILIEUKONTAKT OOST-EUROPA (Netherlands), NGO "Logos" (Tashkent).

Sponsorship: MILIEUKONTAKT OOST-EUROPA – Program of ecologic organizations support in Europe and Asia/Central Asia. Workshop participants were presented by environmental organizations' representatives: ("Logos", "Hayot", "Suvchi", "Armon", "ZECI" (Tashkent); "Union for Amudarya and Aral sea saving", "Aral-Ecostan" (Nukus), "For environmentally pure

Ferghana”, ”Yordon suv” (Ferghana oblast); ”Zarafshan”, ”Khangul”(Samarkand); ”Intercontact” (Urgench); Agency for Nature protection, Harvard University (USA), Agroconsult”, some WUAs and range of international organizations (MILIEUKONTAKT OOST-EUROPA; NRMP, SIC ICWC).

Workshop objective is to share experience in water resources management at local level and development of recommendations on agricultural productivity increase and population provision with safe water improvement.

On June 28, 2004 participants left for Ak-Altin rayon. Planned events included:

-familiarization with project content realized and funded by the government of Uzbekistan jointly with ADB.

Meeting with leaders of private farms and WUAs.

- opinion exchange on WUA and farmers interaction in water resources management perfection.

In particular, mentioned project (cost 63,7mln.USD) includes such components as a park of machinery creation (6,0mln.USD), institutional support (1,0mln.USD), project management (1,0mln.USD) but main goal is to improve irrigated lands reclamation state through irrigation and drainage network efficiency increase.

During the meeting with leaders of farms ”Humo”, ”Mustakillik”, WUA ”Ungarmok” (former shirkat farms ”Andizhan” and ”Ferghana”) was found that their issues are similar to most farms and WUAs in the Republic:

- lack of seeds for crops under state order;
- seeds procurement without recommendations on agro technical treatment. Many farmers received seeds of wheat ”Polovchanka” and got low yield on control fields. Higher yield was found where fields were dried up (there was no water);
- workers’ low salary: in 2004 part of land (10%) use for vegetables and melons was prohibited and salary of 10-11th.soum was appointed. But many workers believe that plot of land is better than irregular monthly.
- interrelations with banks; transfers can be used by farmers only for definite purpose that leads to impossibility to get timely fertilizers or fuel.
- connected with technical services – relations with park of machinery. In general, farmers having own machinery are more confident Rest of farmers wait in line for machinery (ploughing, tillage, harvesting).Because of that, agro technique is violated and crop yield decreases.
- timely payment for agricultural production given to the state;
- farmers provision with water in tail part of canal.

Common issue is growing land reclamation state aggravation caused by drainage degradation. For instance, in Ak-Altyn rayon 216 vertical drains are out of operation, 85% require capital repair, open drainage is overgrown by reed and needs cleaning. As a consequence, cotton yield in rayon is 12-14c/ ha on average (2003).Another common issue is disparity between primary and market prices on agricultural production, particularly for cotton.

Main WUA problem is lack of funds and weak technical basis. During 2 last years WUA did not receive fees for water services from water users.

In Mehnatabad rayon of Syrdarya oblast metering equipment on outlets was inspected installed under USAID support. Was found that USAID metering facilities pass by 10-20% less water compared with calibrated metering stick (visual water discharge and obligatory conditions assessment).

Theoretical part of the workshop was continued in Tashkent (presentations, discussions, opinion exchange, recommendations development).

Following questions were considered:

- experience in water resources management in the Netherlands;
- WUA functioning experience in Syrdarya and Ferghana oblast;
- drinking water supply at local level;
- NGO role in irrigation and drinking water management and public awareness in water amount and quality;
- necessity to develop network of water-related NGOs;
- organizational, institutional and legal aspects of water resources management at local level and public participation.

Key report "About water resources management in the Netherlands" was presented by Ya.Ritsema, leader of ecologic programs support in Central Asia. Report was concentrated on European Water Directive observance by the Netherlands. In spite of perfect water management, transition to IWRM is necessary. Term "IWRM" firstly appeared in national documents in 1989. Since this time IWRM concept has strong support from the state and society.

In particular, it is noted that water management documents are developed by means of broad consultations with relevant ministries, water commissions, provincial, municipal and local power and other concerned parties.

In parallel with three power levels (national, provincial, local), water commissions exist, which deal with water issues in their regions. Water commissions do not depend on official authorities but are controlled by them. Water commission has chairman, executive body and general council. Council consists of concerned groups' representatives. Principle and level of participation is determined by financial contribution (interest-contribution-vote).

Following factors of successful commission functioning are mentioned:

- democratic structure (participation of all concerned groups);
- financial independence (funding system - taxes);
- strong legal basis (guarantee of good management, interests protection).

Presentations of other participants (WUA leaders, NGO representatives, experts) reflected their experience. During discussion following questions were considered:

- farmers and WUA leaders training in water resources management (water conservation, agro-technique, etc.);
- training center establishing for farmers and WUA leaders training;
- propaganda of advanced experience (native and foreign);
- providing water-related information transparency and accessibility;
- perfection of water resources management legal base;
- public participation in water resources management;
- expediency of new water management structures establishing in connection with transition to IWRM (institutional).

SIC ICWC presented papers about necessity of water legislation perfection with regard to modern reality (transition to basin principle in water management, experience of IWRM introduction in Ferghana valley, account of international water law). As to NGO participation in water-ecologic issues solution, participants' attention was drawn to necessity of staged analysis of end water users' rights protection and public participation in national water resources management:

- revealing water-ecologic legislation infringement;
- revealing existing legislation shortcomings;
- proposal on additions and amendments elaboration and submission to competent bodies. For example, in "Law on Water and Water Use" public participation in water resources management is reflected unsatisfactorily.

Problems of grant receiving for new projects were discussed. Common shortcoming of project proposals is their direction to specific issues solution (drainage network cleaning, drinking water supply, etc.) but not to receiving results and knowledge, which can be replicated in the areas with similar conditions.

In conclusion, participants expressed their satisfaction and noted high level of workshop organization.

LARGE HYDRAULIC STRUCTURES SAFETY MONITORING

The Regional Workshop on Large Hydraulic Structures Safety Monitoring was held in Tashkent, Uzbekistan from 15 to 17 July 2004. This workshop was organized by the State Large and Particularly Important Water Objects Technical Condition and Safety Control Inspection (“Gosvodkhoznadzor”) at the Cabinet of the Republic of Uzbekistan and Scientific-Information Center of The Interstate Commission for Water Coordination (SIC ICWC).

The main objective of the workshop was to exchange experience in organizing monitoring over the safety of large hydraulic structures in the countries participating in the workshop.

More than 30 representatives from five Central Asian countries participated in this workshop: Z.S. Mukhatov (Republic of Kazakhstan); N. Sagynbayev (Kyrgyz Republic); K. Saidmurodov (Republic of Tajikistan); K.B. Balliyev (Turkmenistan); and 25 specialists from the Republic of Uzbekistan, including the representatives of the State Inspection (SI) “Gosvodkhoznadzor” and its Diagnostic Center, Ministry of Agriculture and Water Resources, Academy of Sciences (AS) of Uzbekistan, SPA SANIIRI, Master Hydromet, SIC ICWC, “Uzbekenergo”.

The Regional Workshop was opened by T.K. Kamalov, Chairman of SI “Gosvodkhoznadzor”. He greeted the participants of the meeting and emphasized the importance of organizing large hydraulic structures safety monitoring in Central Asian countries. SIC ICWC Director Prof. V.A. Dukhovny noted the significance of international cooperation in providing dams safety, and expressed confidence that the workshop would help to improve the cooperation of all Central Asian countries in achieving safe operation of hydraulic structures, on transboundary and national objects.

The workshop was held in accordance with the program. The moderators at the session of the workshop were: V.A. Dukhovny, Director, SIC ICWC; E.D. Makhmudov, Director, Institute of Water Problems, AS of Uzbekistan; P.J. Umarov, Deputy Director, SIC ICWC; T.K. Kamalov, Chairman, SI “Gosvodkhoznadzor”.

12 presentations stipulated by the program were made at the workshop. Each presentation was accompanied by questions and discussions on the presented themes. The most of the participants spoke at the discussions.

The participants speaking at the discussions noted that the economy of Central Asian countries was tightly bound with transboundary water resources use. Transboundary river basins are managed water systems, since their flows are almost completely regulated by reservoir cascades. The most of hydraulic structures regulating flows were constructed 30–40 years ago, and as they grow obsolete they require more and more investments in organizing monitoring of their technical condition, carrying out precaution, repair and renewal operations, continuous monitoring to provide safe operation of them. However, in the recent years the mentioned operations are not being carried out in full for objective and subjective reasons, mainly owing to scantiness of funds allocated to operational measures. The current technical condition of the most of hydraulic

structures does not meet the requirements, and separate structures represent a danger to human life in case emergency situations arise.

In whole, wishes to continue and strengthen the cooperation between the respective services of Central Asian Republics in the field of the safety of dams and other hydraulic structures, in the aspects such as the creation of normative-legal and normative-technical bases, organization of information and experience exchange, use of up-to-date methods for diagnostic monitoring of technical condition of hydraulic structures, and others were expressed during the discussion.

Conclusions and recommendations.

1. The participants of the workshop state that about 90% of agricultural production, 40% of electricity production, and security of more than 15 million people who live downstream the dams, along the rivers and creeks, depend on reliable operation and safety of hydraulic structures in the region. As a result, the anxiety is rising, and reliable and safe operation of water objects, especially dams, which require developing common approaches in solving these problems of Central Asian Republics, are getting more urgent.

2. The participants of the regional workshop unanimously recognized the necessity to provide cooperation between the countries in the region in the following directions:

- Exchanging information in ensuring safe operation of hydraulic structures;
- exchanging experience in using modern methods and hardware for diagnostic monitoring of the condition of hydraulic structures, and applying advanced repair and reconstruction technologies;
- considering the possibility to draw up a unified normative-technical documentation in the field of technical regulation of no-failure dam operation (special technical regulations, norms and rules for designing, construction and operation of dams);
- providing harmonization of normative documents being developed and adopted by the countries in respective of ensuring safety of hydraulic structures;
- implementing cooperation of national services responsible for the safety of hydraulic structures;
- organizing a system of regular training and familiarization excursions for water specialists in ensuring safety of dams and large hydraulic structures;
- strengthening the cooperation with international organizations, including the International Commission for Large Dams, and establishing communication with the national committees for large dams of the countries with developed water sector and hydropower industry.

3. To ask SIC ICWC to disseminate information on the workshop through its information network, and assist in organizing activities for implementing the recommendations of the regional workshop and in attracting donor aids for further performance of the regional dam safety monitoring projects.

4. To ask the representatives of the countries participating in the regional workshop to bring the results of this meeting to the notice of the respective agencies in Central Asian countries, IFAS Board members.

5. To ask SIC ICWC to enter the issue on safety of dams and hydraulic structures in Central Asian countries on the agenda of the ICWC meeting.

WORKSHOPS FOR FARMERS OF OSH AND FERGHANA OBLASTS (IWRM-FERGHANA PROJECT)

The workshops on the “Adaptation of the results of demonstration plots to the improvement of private farms’ agricultural activities sustainability. The structure, tasks and functioning of Extension Service” were held on 27 and 29 July 2004 in Osh and Ferghana oblasts.

Director of the Project Office and Training Center in Osh A.S. Satybaldiyev addressed a welcoming speech to the participants of the workshops. He familiarized the audience with the goal, tasks and program of the forthcoming workshop.

Leader of the activity on the “Water and land productivity at farms level” S.S. Mukhamedjanov made a presentation on the “Experience of demonstration plots in the IWRM-Ferghana Project Kyrgyz area and recommendations for efficient irrigation water use” at the workshop in Osh city. He told about the results of the detailed agricultural production study carried out on 3 private farms in Osh oblast under the IWRM-Ferghana Project, and recommendations developed on the basis of them for using irrigation water efficiently, improving water and land productivity, carrying out agro technical measures that will help farmers to solve a number of problems faced.

Making his presentation on the “Experience of demonstration plots in the IWRM-Ferghana Project Kyrgyz area and recommendations for efficient irrigation water use” at the workshop in Ferghana oblast, S.S. Mukhamedjanov told about the results of the detailed agricultural production study carried out on demonstration plots on 3 private farms in Ferghana oblast, and developed recommendations for using irrigation water efficiently, improving water and land productivity, carrying out agro technical measures.

In his speech on “Water accounting organization on private farms, irrigation water volume and use measurement”, regional technician assistant A. Galustyan familiarized the audience with diverse types of water-measuring facilities, recommended at present to use on private farms. Later, she told how a place for gauging station and a type of flow-meter are selected, what requirements are made to installing and operating it. It was demonstrated how to organize water accounting on farm, measure irrigation water volume and use on the example of private farms such as “Nursultan-Aly” (Osh oblast) and “Khojalkhon-ona-khoji” (Ferghana oblast).

Further, in his speech on the “Structure, tasks and functioning of an Extension Service. Practical recommendations for efficient irrigation water use”, S.S. Mukhamedjanov acquainted the participants with the purposes and tasks of Extension Service, main issues of its activities, problems existing on private farms, ways and methods to solve them. Farmers were demonstrated a simplified method for determining irrigation terms and depths, and water intake volume by daily evaporation, information on which farmers can receive in WUAs from evaporating pans, installed on demonstration plot. Each farmer was given a list-form method for determining irrigation dates and depths. The information presented by S.S. Mukhamedjanov interested the farmers very much.

Water allocation specialists A. Alimjanov made a presentation titled “Organization of water allocation between private farms”, who noted the current problems of organizing water allocation between private farms, and offered a method for water allocation between water users with irrigated plots of no more than 50 ha upon the requests. The proposed method for water allocation was adjusted based on irrigation regime developed on demonstration plots under the Activity “Water and Land Productivity at Farms Level”, and does not allow non-productive water supply to irrigation network, gives water users an opportunity to plan and timely carry out agrotechnical measures in cropping, improves the efficiency of secondary and other canals, enables to integrate water allocation from canal to field as well as to improve irrigation discipline and so on.

In his presentation, consultant in agronomy S.A. Nerozin told about that all agro technical measures carried out by farmers had been fixed during crop production on demonstration fields: indicators such as data of operation carried out, amount of hours spent to work, type of mechanism, cost of work done had been filled in special forms. Such data enable to daily fix flows, plan agricultural production costs. The participants of the workshop were presented a technological schedule of agricultural activities that was attached to soil-climate conditions, and included rules for carrying out agro technical operations with the instruction on used machines and mechanisms, parameters of setting working bodies. Field certificate gives farmer an opportunity to learn all peculiarities of his plot, adjust fertilizer application rates, farming techniques, to rationally use irrigation water. Based on field certificate information, an individual technological schedule of agricultural activities is made, in which dates of operations, rules for carrying out them, types of tractors and mechanisms used in them, recommendations for fertilizer application rates and dates, measures for crop protection from weed, diseases and pests are given. The use of certificate and recommendations, presented in technological schedule of agricultural activities enabled farmers in Osh oblast to reduce irrigation water use up to 30% and raise yield capacity of wheat by 38%, cotton by 25%. The problem of mineral and organic fertilizers application dates and rates at planned level of yields, measures taken for weed, disease and pest control was elucidated separately.

In the presentation on the “Development of the extension services network within the framework of WUAs”, coordinator for Osh oblast S. Alybayev noted that the experience obtained by technicians and observers during the activity with specialists on demonstration plots in Osh oblast was being extended to neighboring private farms with holding discussions with farmers, specifying their problems, holding consultations as far as possible. The creation of a network of extension services will enable to satisfy farmer requirements in many aspects as much as possible.

In the presentation on the “Development of the extension service network within the framework of WUAs”, coordinator for Ferghana oblast A. Fozylov emphasized that farmer had become a single owner and independently answered for all production, being faced with a number of organizational, financial, legal and other problems. The Extension Service having specialists like agronomists, hydraulic engineers, entomologists and so on at its command may give a farmer a big help in solving these problems. The proverb that “it is better to have land at the beginning of canal than to be mirab” says about the necessity of a rational approach to water resources allocation.

Upon completion of all presentations, a discussion was held with farmers, technicians and observers of demonstration plots, during which the following questions were touched upon:

- time, types and amount of fertilizers to be applied under diverse crops;
- optimum sowing dates, and optimum irrigation depths for corn, winter wheat, cotton and other crops;
- problems of struggle with pests, in particular Colorado beetle, rats, which have recently become a real disaster for farmers;
- problems of stable water supply and availability (Aravan-Akbura Canal);
- organizing water accounting, following water receipt queue, planning and allocating water for small holdings, rehabilitating irrigation systems;
- making field certificates of private farms;
- problems with allocating credits in crop production, providing with equipment;
- problems with small allotments;
- organizing Extension Service, financing it

The speakers gave irrefragable answers to all the questions asked during the discussion.

ABOUT THE PROGRESS OF THE PROJECT ACTIVITIES FOR THE REHABILITATION OF CHUI OBLAST IRRIGATION NETWORK

The Regional Agricultural Development Project (IIPPCX) funded by the Asian Development Bank on the credit agreement concluded with the Kyrgyz Government (ADB Loan No.30320-01 KGZ) provides for the rehabilitation of on-farm and inter-farm irrigation and collector-drainage network in an area of 55,000 ha in Chui oblast.

Within this project, as a result of the won tender the PKTI “Vodavtomatika i metrologiya” (CMC ICWC) made project estimate documents for the rehabilitation of on-farm and inter-farm irrigation and collector-drainage network in an area of 2,705 ha on ‘Zhayil’ farm in Zhayil rayon, and in an area of 2,275 ha on ‘Niva’ farm in Panfilov rayon, Chui oblast.

The rehabilitation project includes:

- water intake structure on Kara-Balta river at that an estimated flow of water recipient is 9 m³/sec;
- water intake structure on Aspara river at that an estimated flow of water recipient is 7 m³/sec;
- inter-farm irrigation network;
- on-farm irrigation network;
- surface collector-drainage network;
- flushing of subsurface drains;
- subsurface irrigation network with “Fregat” sprinkling machines on ‘Niva’ farm.

Topo-geodesic operations were carried out by using modern software and hardware.

Project estimate documents passed state and ecological assessment, was approved by the Asian Development Bank.

Tender documents for construction have been prepared.

ABOUT INSTALLING WATER ACCOUNTING FACILITIES IN PILOT WUA “ZHAPALAK”, KYRGYZ REPUBLIC

The IWRM-Ferghana Project surveyed pilot WUA “Zhapalak” to define the state and necessary scope of additional water accounting facilities on irrigation and collector-drainage network.

The investigation carried out by project hydrometry consultant R.R. Masumov showed that none of secondary feeders and their branches meets water accounting requirements. Based on the conducted investigation, the project executors defined additional need of each feeder and its branches for diverse types of water accounting facilities. Costs of equipping WUA “Zhapalak” with additional water accounting facilities were incurred by the project sponsor, Swiss Agency for Development and Cooperation (SDC) (object investigation, projecting, manufacturing and delivering to object), and Ministry of Agriculture and Water Resources of the Kyrgyz Republic (construction and assembling operations for mounting water accounting facilities on feeders and collector-drainage network in WUA “Zhapalak”).

The activity in this direction is near to the end. We note that of 119 units of water accounting facilities, 105 have been completed by 5 May 2004.

Thereupon IWRM-Ferghana Project expresses deep gratitude to Deputy Minister of Agriculture and Water Resources of the Kyrgyz Republic Z.B. Bekbolotov, Head of Osh Basin Water Authority B.E. Matraimov, and Director of the IWRM-Ferghana Project Office A.S. Satybaldiyev

for organizing and carrying out construction and assembling operations in installing diverse types of water accounting facilities in pilot WUA “Zhapalak”.

CONFERENCE ON EFFICIENT HYDROPOWER RESOURCES USE IN THE CIS

The scientific-practical conference on the “Problems of Efficient Hydropower Resources Use in the CIS and safe hydraulic structures operation ensuring” was held on 11 June 2004 in Dushanbe within the framework of the 25th CIS Electric Power Council Meeting.

The heads of energy sectors, representatives of water and environmental authorities, science and production of the CIS, representatives of executive organs of the Interstate Fund for the Aral Sea Saving (EC IFAS, SIC ICWC) took part in the conference. The problems of hydropower industry and water sector were discussed, ways to solve them were considered, and development prospects and concrete plans for broadening the cooperation of the CIS in this field were formulated. A special attention was given to the problems of water-energy nexus and integrated water resources use in Central Asian states.

The appeal of the conference participants to the Heads of Governments of Central Asian countries and the Russian Federation to give attention to the problem of hydropower and water sector of the states in the region, give a political impulse to plans for developing power sectors of the region comprehensively taking into account interests of other sectors (agriculture, water sector, etc.) and the environment, and provide economic assistance in implementing them was adopted. Noting the complexity and inconsistency of inter sectoral relationships in providing rational water and energy balance in Central Asian countries, the Conference gave attention to possibility of solving these problems on the basis of consensus.

LIVENING UP THE WORK ON GENDER EQUALITY IN WATER SECTOR IN CENTRAL ASIA

An integrated gender approach was approved as a global strategy for achieving gender equality in economic development by the Action Platform of the 4th UN Conference on Women Status in Peking, 1995. Paragraph 164 of Chapter “Women and Economy” specially considers the objectives of an integrated gender approach. The FAO Concept of gender analysis states that “economically, ecologically and socially effective development requires complete reorientation of efforts to widening of women’s opportunities”. Undoubtedly, sustainable economic development is achieved only at the level of social activity, in view of interests and needs of all social groups, and use of their capacity in the interests of development. Particularly, in conducting reforms it is important to create prerequisites for identifying a real contribution of women and men to economic development, and stimulate their participation in development. The activity in this direction is being carried out in Central Asian states as well. The Decree of the President of Uzbekistan dated 25 May 2004 “About additional measures to maintain the activity of the Women Committee of Uzbekistan”, which notes the necessity of actions for “raising the role of women in modernization and democratic renovation of society, public and state construction”, can be called one of the recent achievements. Raising socio-political activity of women should proceed from the initiative and enterprise in this regard below, and this requires public awareness of gender equality problem.

There is still a wrong belief that an integrated gender approach means only women participation broadening, though it is much wider and considers various social roles of men and women. There

is an imminent exigency to take into account gender prospects in implementing policies, programs and projects in agriculture and, especially, in water sector in Central Asia. Gender prospect should become integral in developing policy in this field and include researches, analysis, planning, and institutional development. Many international organizations and financial institutions recognized the urgency of considering gender equality issues, and are actively introducing them in their own policies. Among them, the Asian Development Bank adopted policy "Women Role in Development" as early as 1986, and converted it into new "Gender and Development" in 1998. On 26-28 May 2004 in Almaty the Asian Development Bank supported holding the session on gender equality problem in water sector in the course of the Regional Conference on "Water Partnership in Central Asia" to put new initiative "Gender and Water in Central Asia" into practice.

The participants of the session raised many urgent questions related to gender equality in water sector, among which a special emphasis was placed on the lack of relevant information, shortage of basic knowledge and skills of women in carrying out agricultural activities, low self-appraisal, inactivity and insufficient representation of women in governing organs at various levels. So, as it was proposed, the main goal of the initiative should be to inform society about gender equality problem in water sector. To this end it is planned to previously prepare trainers who could bring information to a larger number of persons in Central Asian countries. It is also planned to carry out a statistical country analysis in regard to the situation, publish reviews and scientific developments. In our opinion, exchange of information and establishment of contacts between water specialists will favor accelerating women promotion and changing social aims.

To develop the initiative, the Scientific-Information center of ICWC launched website dedicated to gender problems: www.gender.cawater-info.net

PURE DRINKING WATER FOR KHUJAND CITY 2004-2007

The Swiss Government allocated a \$3 million grant within the framework of the new project in Sogd oblast. The meeting of the representatives from Switzerland, the European Bank for Reconstruction and Development (EBRD) and Sogd Oblast Khukumat (Administration) will take place on 13 July 2004 in Khujand city. This meeting will give rise to the new water supply project to be completed in 2007.

The Swiss Government represented by the Swiss Cooperation Office in Tajikistan has been making its contribution to improving the prosperity of the republic since 1997. The next stage of the cooperation between Switzerland and Tajikistan will be a \$3 million grant provided by the Swiss Government through the structures of Seco (Swiss State Economic Secretariat). This grant constitutes 60% of the total cost of the Khujand Water Supply Project. The ceremony of signing the agreement on the project implementation will be on 13 July 2004 in Khujand.

The Khujand Water Supply Project was launched by the European Bank for Reconstruction and Development (EBRD) at the instance of the Administration of Sogd oblast, Tajikistan. The EBRD appealed to the Swiss and Norwegian Governments for project co-financing through allocation of grant funds, since this grant eases the burden of EBRD loan. In Tajikistan the involvement in urban water supply is stipulated in the approved country strategy of the Swiss State Economic Secretariat of the Swiss Government (seco), and strategy of Switzerland for water supply sector in Central Asia (for further information please contact at: www.seco-cooperation.ch). The project is funded by the Swiss and Norwegian Governments and EBRD as well as by the Tajik Government.

The Khudjand water supply improvement project will include three main components, the first of which is to prepare, finance and implement investment programs for quality and safety improvement. The second project component is to carry out trainings for the personnel of the organization to develop and perfect the regulating structure and functioning of Khudjand Vodokanal Company. The third component provides for raising public awareness of problems related to water supply, water value, and scantiness of water resources, which should not be wasted.

Negotiations and project review began in 2003. The project will be launched in July 2004, and by 2007 the access to pure drinking water of Khudjand population will be improved. Moreover, this project agrees with the forthcoming decade “Pure Water for Life” announced by the United Nations from 2005 to 2015 at the suggestion of the Republic of Tajikistan.

Source: Media-Release,

Swiss State Economic Secretariat,

Swiss Government (seco), 09 July 2004

ECOLOGICAL SEARCH WEB PORTAL

Within the framework of the UNEP ‘Decision Making Support System in Central Asia’ Project, the Scientific-Information Center of CSD launched Central Asia Ecological Search Web Portal “ECO-PORTAL” of: www.eco-portal.kz.

The portal is designed to ease information search in ecology, legislation and statistics in Central Asia region. The portal is also designed for free information exchange on ecology and sustainable development in Central Asia, by registered users, using both independent placing of articles on the home page and proposing hot subjects for discussion at the forum.

NEW WATER AND ECOLOGICAL WEB PORTAL – ‘CENTRAL ASIA WATER INFO’

At the beginning of June the specialists of the Scientific-Information Center of ICWC launched Central Asia Water and Ecological Web Portal: www.cawater-info.net.

The portal was created within the framework of the ‘Central Asia Regional Water Information Base’ (CAREWIB) Project funded by the Swiss Agency for Development and Cooperation (SDC) and being implemented by the UNECE and UNEP/GRID-Arendal.

The aim of the CAREWIB Project is to improve information supply to water and environmental sectors in Central Asian countries. This should favor improving development sustainability and strengthening the partnership in rational natural resources use in the region.

The portal sections are:

- 1) News Block: information on the current events in the region and abroad, relating to the portal subjects (water and ecology)
- 2) Catalog of water and ecological web sites – both Central Asian and foreign
- 3) Information system on water and land resources in the Aral Sea basin, including on-line data of Hydromet Center
- 4) Knowledge base (bibliographic database, electronic library)

- 5) Database (sections: Project being implemented in the region; Addresses of water and ecological organizations of Central Asia; Brief information on the Aral Sea basin countries; Maps of Central Asia; Diverse databases)
- 6) Calendar of events: information on conferences, exhibitions, congresses, symposiums and so on.
- 7) Forum for discussion of regional problems in ecology and water sector.

NEW PUBLICATIONS

A book titled “Drainage in the Aral Sea Basin towards Sustainable Development Strategy” (team of authors under the editorship of Prof. V.A. Dukhovny), prepared and printed by the Scientific-Information Center of ICWC came out at the end of June.

Intensive irrigation development in the 20th century, especially in the latter half, development of new irrigable lands in Hunger, Karshi, Jizak, Sherabad steppes, Karakum and Kzylkum canal zones, Central Ferghana, Asht Massif in Tajikistan put drainage problem in the leading place in the region. Irrigation systems have become complex drainage-irrigation–reclamation systems where only joint operation and management of drainage and irrigation networks enabled to create a background for sustainable agricultural production and soil fertility maintenance. The scopes of the creation of these systems were unique: up to 60,000 ha a year!

The USSR’s collapse and gaining of the independence were accompanied by the break of all usual and established rules of operation, repair; weakening of economic and organizational base of agriculture and water sector, economic and financial provision of water authorities that used these types of drainage before, and the whole state potential. As a result, the paces of drainage rehabilitation and development reduced to zero, operation costs reduced by dozens of times, reclamation service sharply weakened that resulted in salinization and water logging growth as well as in land productivity loss. One should be surprised how malignant growth in salinization did not cover all lands under these conditions at a 30-50% workability of drainage systems, though such examples are on hand.

Under the current conditions there is a very important task - to organize activity on saving reclamation background sustainability under the above-mentioned circumstances through:

- attracting the attention of decision makers to the problem of drainage, maintenance and development of it;
- defining organizational forms of combining state and private participation (first, land and water users) in rehabilitation, repair, operation and maintenance of drainage in the context of transition to market economy;
- teach people (operators and water users) how to combine capable management of irrigation and drainage water for effective crop production at low water use, saving drainage by using low-cost methods, exceedingly reducing salt exchange between groundwater and aeration zone, on the one hand, and between irrigated massifs and river, on the other hand;
- organizing collector-drainage flow management: its amount, release to river, limitation within the framework of basin and basin organizations.

Editorial Board:

V.A. Dukhovny

A.G. Pulatov

B.K. Turdibayev

Editorial office address:

SIC ICWC

11, Karasu-4, Tashkent

700187 Republic of Uzbekistan

E-mail: info@icwc-aral.uz

<http://www.icwc-aral.uz>

Editor N.D. Ananyeva

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