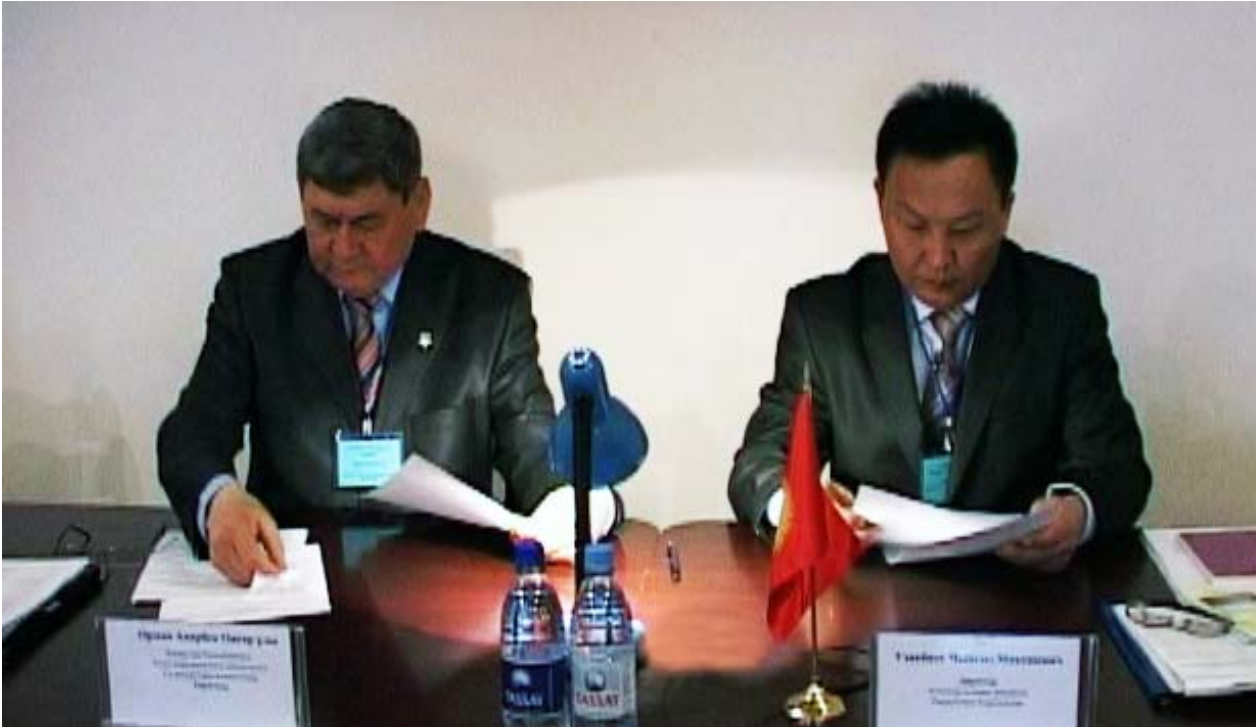


REPORT

of the Commission
of the Republic of Kazakhstan and the
Kyrgyz Republic on the Use of Water
Management Facilities of
Intergovernmental Status on the Chu and
Talas Rivers on its activities in 2008–2009



Чу-Таласская
Водохозяйственная
Комиссия



*A.O. Orman and Ch.M. Uzakbaev, Co-chairmen of the Commission,
signing the protocol of the meeting of the Commission*

CONTENTS

Preface

I. General provisions

II. Activities of the Commission

III. Support of the international community

IV. Participation in international cooperation

V. Financing of activities related to the implementation of the Agreement of 21 January 2000

Contact information

Preface

In 2010, a remarkable date in modern history of Kyrgyz – Kazakh water relations development is celebrated – the tenth anniversary of the signing of a bilateral Agreement on the use of water management facilities of intergovernmental status on the Chu and Talas Rivers. Now, ten years later we can be confident that the key principles and mechanisms of cooperation stipulated by this document endured and is reflected in real life. By joint efforts and with significant support provided by international organizations and financial institutions, we have managed to establish a sustainable coordination structure that includes a bilateral Chu-Talas water management commission, its permanent secretariat as well as expert and working groups. Today, this Commission is seen as an integral link for the interaction between water agencies in both countries on the territory of two transboundary basins. The role of the Commission is not limited to the approval of water resources allocation, or to the planning of shared funding of the countries to maintain and rehabilitate water management facilities of interstate importance.

It is not less important that the activities of the Commission aim at enabling transparency of water policy of the two Parties, relevant information sharing, prevention and rapid settlement of problematic situations inevitable for a region with complex natural and climate conditions and objective conflicts between national interests regarding the use of water resources. Eventually, these measures not only facilitate the strengthening of trust in bilateral water relations, but also more broadly facilitate the strengthening of mutually beneficial neighborly relations between two sister nations.

At the same time, the Commission functions with time more frequently as a generator of new ideas and joint practical projects related to water. The capacity of the Commission is also developing – its information base is replenished, technical equipment of the secretariat is improved, new highly qualified specialists are attracted to the expert group activities and, which is especially important, the range of strategic partners is broadening. We emphasize with the satisfaction that along with those who facilitated establishment of the Commission from the very beginning – the United Nations Economic Commission for Europe (UNECE), the Organization for Security and Cooperation in Europe (OSCE) and Asian Development Bank (ADB) – assistance provided by the Swiss Agency for Development and Cooperation (SDC) and the European Union (EU) is becoming more and more important.

Recently we were concerned with the fact that experience of the Commission often was acquired by trial and error, and still we do not want to overestimate its achievements. However, positive aspects of this experience already has attracted attention and is being replicated. For instance, our experiences are used for the establishment of other inter-state structures in Central Asia. So, we have the right to believe that we managed to pass through the most difficult stage – the establishment of the Commission – and the time has come to directly start implementation of new tasks that consist of expanding the sphere of Commission's activity, in enhancing its effectiveness, introducing more actively mechanisms of integrated water resources management, and emphasising environmental aspects of bilateral water relations. We are confident that these ambitious objectives will be achieved by joint efforts.

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A.O. Orman**

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7 April 2010



Water management facilities of intergovernmental status on the Chu and Talas Rivers

I. General provisions

Water resources allocation between the Kyrgyz Republic and the Republic of Kazakhstan is implemented in the Chu River basin in accordance with «The Regulation on water flow allocation in the Chu river basin” of 24 February, 1983, and the additional Protocol of 18 February, 1985. According to these documents, water resources should be allocated between both Parties as 58 per cent for Kyrgyzstan and 42 per cent for Kazakhstan. In the Talas River basin allocation of water resources is made in accordance with “The Regulation on water flow allocation in the Talas river basin” of 31 January 1983 and an additional Protocol to this document of 18 July 1983. According to these documents, water resources should be allocated equally between both Parties (50% - 50%).

In January 2000, an Agreement was signed between two Governments on the use of water management facilities of intergovernmental status on the Chu and Talas Rivers with the purpose to establish a legal basis for joint operation of water management infrastructure to implement water allocation in accordance with the above-mentioned provisions. In accordance with article 5 of this Agreement, in 2006 a bilateral Commission was established on interstate use of water management facilities on the Chu and Talas Rivers (hereinafter referred to as the Commission, or Chu–Talas Water Commission (CTWC)) to jointly enable safe and reliable operation of these facilities.

The Commission was established based on the parity principle and is working under the leadership of two co-chairmen assigned by the Parties. The composition of the Commission is determined based on the principle of equal representation of both Parties. CTWC consists of two parts: Kazakh part that consists of a Chairman and its members assigned by the Government of Kazakhstan and Kyrgyz part that consists of another Chairman and members assigned by the Government of Kyrgyzstan. Co-chairmen and members of the Commission from both Parties enjoy equal rights and equal responsibilities. Sessions of the Commission, the main form of its activity, are held at least twice a year.

The following water management facilities listed in the Agreement are included into the sphere of CTWC work:

In Chu River basin:

- Orto-Tokoi Reservoir;
- Bypass Chu Canals;
- Western Bolshoi Chu Canal (WBCC);
- Eastern Bolshoi Chu Canal (EBCC);
- Chumysh waterworks facility;

In Talas River basin:

- Kirov reservoir.

CTWC establishes the regime for operation of these facilities and determines the amount of required expenses to enable reliable operation and required technical maintenance, as well as the share of each Party to cover these costs. In addition, CTWC is empowered with the following functions and related powers:

- Coordination and organization of activities to implement the Agreement;
- Elaboration and implementation of joint measures related to protection and rational use of water resources in the basins of Chu and Talas Rivers;
- Comprehensive assessment and forecasting of the condition of water bodies, regulation of water resources use;
- Approval of water use and water allocation indicators, water measurement and recording, as well as methods of hydrological monitoring implementation;
- Approval of documents that regulate operation of water management facilities of interstate use and the respective shares in the funding of activities related to operation and maintenance;
- Adjustment of approved regimes for operation of reservoirs and limits of water use depending on actual water availability and water demand;
- Establishment of procedures and organization of participatory actions during emergency situations, and coordination of measures regarding safe discharge of flood waters and combating floods, mudflows and other natural disasters;
- Exchange of hydrological prognoses, as well as information on current status of water management situation and other relevant information in the basins of Chu and Talas Rivers;
- Approval and coordination of monitoring programs for water bodies, maintaining Water Cadastre to form single monitoring and

accounting system in the Chu and Talas Rivers' basins;

- Arrangement of joint research and developments related to operation, maintenance and safety of water management facilities, and rational use of water resources of Chu and Talas Rivers.

The Permanent Secretariat is the executive body of CTWC and deals with preparation and monitoring of the implementation of the Commission's decisions, contacts between the representatives of the governments of the countries between the sessions, maintains official

correspondence, collects, prepares and archives materials etc.

Four working groups have been established under the CTW Secretariat:

- The working group on legal and institutional issues;
- The working group on annual water resources allocation;
- The working group on hydro engineering works and reconstruction of water facilities;
- The working group on economic, environmental issues, monitoring and information-sharing.

CHARACTERISTICS OF THE CHU AND TALAS RIVERS' BASINS

	Chu	Talas
Total basin area:	62 5 00 km²	52 7 00 km²
<i>The Republic of Kazakhstan</i>	26 600 km ² (42.5%)	11 430 km ² (21.7%)
<i>The Kyrgyz Republic</i>	35 900 km ² (57.5%)	41 270 km ² (78.3%)
Общая длина реки	1 186 km	444 km
<i>The Republic of Kazakhstan</i>	850 km	227 km
<i>The Kyrgyz Republic</i>	336 km	217 km
Runoff area	38,400 km²	9240 km²
Runoff elevation	2 400-500 m	2 400-500 m
<i>The Republic of Kazakhstan</i>	600-500 m	650-500 m
<i>The Kyrgyz Republic</i>	2 400-600 m	2 400-650 m
Annual average river runoff (formation)	6.6 km³/year	1.6 km³/year
Irrigated land area	460 000 ha	178 000 ha
<i>The Republic of Kazakhstan</i>	131 000 ha	63 000 ha
<i>The Kyrgyz Republic</i>	329 000 ha	115 000 ha

II. Activities of the Commission

A. Sessions of the Commission

During the period from 2006 to 2009, CTWC held eight enlarged sessions, four of which were held during the reporting period.

Session V (30 April 2008)

The fifth session of the Commission took place in Bishkek. Issues related to shared funding of repair and maintenance of water management facilities of interstate importance and on the requirement to increase funding for operation and maintenance, based on joint examination of these facilities performed by water experts of the two countries were considered at the session.

Session VI (15-16 December 2008)

At the sixth session of CTWC held in Taraz, a decision was made to further elaborate the Agreement and to introduce amendments and addenda to improve the work of the Commission and to expand the list of water management facilities under its jurisdiction.

It was decided that 50% of the rehabilitation works from the funding coming from Kazakhstan could be performed by Kyrgyz contractors. In addition, it was recommended to consider the opportunity to use up to 70% of allocated funding for rehabilitation and repair works before the beginning of the vegetation period.

Session VII (6 -7 February 2009)

At the seventh session of the Commission that took place in Bishkek city active and interested participation of the international organizations also in terms of support for the activities of the Commission could be noted. The main objectives and tasks of the following projects implemented by the international organizations and donors were approved at the session: Project of the United Nations Economic Commission for Europe and the Organization for Security and Cooperation in Europe (UNECE/OSCE) "Development of cooperation in Chu and Talas Rivers's basins (Chu-Talas II), Asian Development Bank (ADB) project "Water resources management improvement in Central Asia", Swiss Agency for Development and

Cooperation (SDC) project "Promotion of interstate cooperation on Chu River water resources management", UNECE project on formation of national dialogue on water policy, European Union project (EU-TACIS) "Water resources management in Central Asia in Chu and Talas Rivers' basins", and World Bank project on water management improvement in Kyrgyzstan.

For further improvement of coordination of activities of the international community to support the Commission it was decided to establish a consultative group of donors and partner organizations.

Session VIII (6-7 October 2009)

The following main decisions were made by the Commission: introduction of amendments and addenda into the Agreement of 21 January 2000 and on conducting a regional conference in 2010 dedicated to tenth anniversary of signing of the Agreement.

B. Coordination and approval of water supply schedule by the Parties

Annually, before the beginning of vegetation period, in Chu and Talas basin departments (Kyrgyzstan) and Shu-Talas basin department (Kazakhstan) options of water allocation schedules for different conditions are developed (depending on water availability, volumes of non-accounted water resources and water supply regimes), and then the Parties approve the official water allocation schedule. Every tenth day during the vegetation period the implementation of the water allocation schedule is estimated and a forecast of total water allocation indicators made until the end of vegetation period.

C. Operation and maintenance of water infrastructure of inter-State use

The experts of water agencies of the Kyrgyz Republic and the Republic of Kazakhstan in 2008-2009 carried out joint examination of water management facilities, based on which defect acts were prepared on the technical condition of the main waterworks along with needs assessment for repair and rehabilitation works for the following years.

In 2008, the main repair and rehabilitation works were performed at the dam of Kirov reservoir and at Chumysh waterworks facility. In particular, the stairway and electrical equipment of Kirov reservoir dam were repaired along with the undersluices and curvilinear chambers of Georgievsky and Atbashi main canals and headworks of Eastern Chu canal and By-pass Chu canal – 1.

In 2009, curvilinear chambers and hydro posts located downstream of Atbashi main canal and on Chumysh daily reservoir were repaired. Routine repair was performed at the headworks of Western and Eastern Bolshoi Chu canals. Mechanical cleaning of sedimentation tanks of By-pass Chu canal– 2 was performed. Seven hydro posts and industrial buildings on the Kirov reservoir were repaired.

D. Cost sharing for operation and maintenance of water infrastructure of inter-State use

Operation and maintenance costs of water management facilities of inter-state use on Chu and Talas Rivers are covered from the state budgets of the two republics proportionally to water volumes supplied to each of them.

The share of funding of the Parties is determined according to the Methodology for determination of shared co-financing of adjacent countries for the operation of water management facilities of interstate use in the basins of Chu and Talas Rivers.

The Methodology is based on calculations taking into account available fixed assets (assets, book value, norms and required expenses for operation, and maintenance and rehabilitation works), composition of operational staff, required salary fund and overhead costs, as well as operational costs needed for energy and materials.

Calculation of costs for maintenance of the facilities is made annually and is approved at the sessions of CTWC. Figures related to funding of operation and maintenance of water management infrastructure of joint use in 2008-2009 are given in section V.

E. Development and introduction of automated control system and data collection on the facilities of interstate use

To optimize technological control processes at the headworks of WBCC, design-construction and technological institute “Vodavtomatika and Metrology” designed an automated control system and installed this at control facilities, performed precommissioning of installed equipment and carried out training of operational personnel and dispatchers.

The main function of automated system of the Headworks of WBCC (AS WBCC) is to regulate water flow at the headworks of the canal in accordance with water supply schedule by means of automatic performance of the following technological operations:

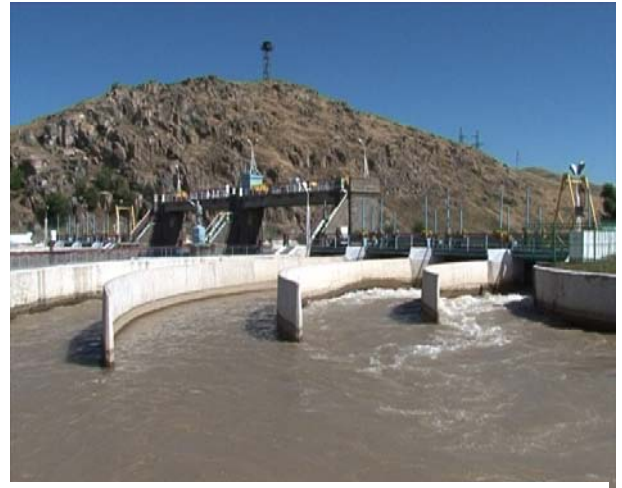
- Measurement of water level at hydro posts;
- Control of water level deviations beyond accepted limits;
- Measurement of gates’ positions at the headworks of WBCC;
- Regulation of water level by means of regulation of gates;
- Control of water volumes, water levels and positions of the gates;
- Stabilizing (maintaining) of water levels and protection of upstream facilities from overflow;
- Remote control of electrical drives of the gates of hydraulic structures.

F. Mathematical simulation of formation and allocation of water resources in Chu and Talas Rivers basin

To automatize calculations related to planning of allocation and accounting of water resources of the Talas River a basin software has been developed that allows performing such calculations as well as creating and maintaining a database. This software is now used in practice. Efforts are made for the use of functions of the software developed for Talas River basin to simulate the results of water allocation for different scenarios (change of weather conditions, deviation of water volume of the irrigation



Kirov reservoir on the Talas River: land view and space view



Hydraulic structures on the Chu River...



... supply life-giving water to the fields



...and on the Talas River...





The Western Bolshoi Chu Canal: in the control room ...



...and near the gate

sources from predicted values), which will enhance the effectiveness of the software.

Efforts are also made to apply a similar software developed for Chu River basin. Baseline data have been prepared and calculations made for water allocation schedule in this basin for 2009. During the 2009 vegetation period, calculations of ten-day indicators were prepared in relation to implementation of the water allocation schedule. Testing of the software was performed along with final development of selected software modules with the aim to improve the model for water resources allocation taking into account the requirements of various sectors of economy, primarily energy and agricultural sectors.

G. Introduction of IWRM in Chu and Talas Rivers basin. Establishment of basin councils

During the reporting period experts of the joint working groups prepared a draft “Action Plan on the introduction of integrated water resources management principles (IWRM) in the Chu and Talas Rivers basins”. Introduction of IWRM will facilitate a better employment and increased income of the population in sectors of economy using water, will improve public health through the development of sustainable drinking water supply system, restoration and preservation of environment, conservation and rational use of land, water-energy and other natural resources in these river basins.

An Action Plan is presented in the form of a road map that includes a list of priority measures, key anticipated results, indicators and deadlines of implementation. Additionally, the Action Plan includes assumed sources of cost recovery, required conditions to achieve planned results, as well as expected risks and factors that might hinder achievement of key objectives.

Basin councils were established in 2008 in the Kyrgyz part of the Talas River basin as a component in the implementation of IWRM principles; and also in the Kyrgyz part of the Chu River basin in 2009. Representatives of public administration, various sectors of economy, non-governmental organizations, independent water users and public organizations are taking part in the basin councils. In addition, co-heads of the secretariat of CTWC were also included in the basin councils. In Kazakhstan, a basin council for its part of the Shu and Talas Rivers’ basins was established in 2006.

H. Raising awareness of the work of the Commission

In 2009, after short break, the official website of CTWC recommenced its operation. The website presents information about the Commission, the main legal documents, minutes of the sessions of the Commission and other material. The material is available in Russian and in English, which allows expanding the number of users and provides an opportunity disseminate more broadly knowledge about the Commission. The new CTWC website address is: www.chutalascommission.org.

The results of CTWC work are well covered in regional mass media. Articles dedicated to this topic are periodically published in oblast newspaper “Znamya Truda” in Kazakhstan, as well as in the irrigation sector journal “Water, Land, People” in Kyrgyzstan.

The following booklets have been published to popularize transboundary cooperation between the Republics:

- “The Commission of the Republic of Kazakhstan and the Kyrgyz Republic on the Use of Water Management Facilities of Intergovernmental Status on Chu and Talas Rivers on the threshold of the tenth anniversary of signing the 2000 Agreement”;
- “Integrated water resources management (IWRM) in the basins of Chu and Talas Rivers”;
- “Status of the environment in middle and downstream areas of the Chu-Talas basin”

I. Improvement of the Agreement between the Government of the Kyrgyz Republic and the Government of the Republic of Kazakhstan on the use of water management facilities of interstate use on Chu and Talas Rivers

At the eighth session of the Commission that took place on 6 October 2009 a Protocol was adopted on the introduction of amendments and addenda of the Agreement signed between the Government of the Kyrgyz Republic and the Government of the Republic of Kazakhstan on the use of water management facilities of interstate use on Chu and Talas Rivers on 21 January 2000.

Thus, with regard to the article 2 of this Agreement it was proposed to add to the list of facilities of interstate use the following facilities:

- Kozh canal with waterworks on the Talas River;
- Karataki canal with waterworks on the Kurkureusu River;
- Tomentanga canal with waterworks on the Kurkureusu River;
- Akmollda canal.

III. Support from the International Community

Projects funded by the international organizations and donors

ADB project “Improvement management of water resources in Central Asia”

Within the frame of this project, the specialists of expert groups have prepared an action plan for the introduction of IWRM principles in the Chu and Talas River basins in the form of road map that also indicates priorities. A software model on the evaluation and allocation of water resources in the Talas River basin was developed and improved. Software was developed and applied in the Chu River basin. An assessment of the environmental status was made in the basins of Chu and Talas Rivers, and recommendations were prepared on the improvement of the environmental condition in the region.

Swiss Agency for Cooperation and Development project on promotion of international cooperation on water resources management on the transboundary Chu and Talas Rivers

This project has supported the technical re-equipment of the facilities intended for interstate use and the installation of control systems (SCADA). In particular, an “Automated system of Headworks of WBCC (AS WBCC)” (See section II).

Software was developed for AS WBCC that supports its work in real time regime while updating the database every hour, provides information sharing with control devices, enables data output to monitor and printer, controls the status of burglar alarm and automatically analyzes availability of communication with all sensors.

Addenda were introduced into the article 5 that envisage funding of the Secretariat from republican budgets of the Parties.

Amendments in article 11 are aimed at simplification of the procedure for passing the state border for the personnel that operates the facilities of interstate use, as well as tax exemption of customs tariffs and taxes for goods and vehicles based on lists and quantities approved by the Commission.

UNECE/OSCE project “Development of cooperation on Chu and Talas Rivers between Kazakhstan and Kyrgyzstan”

This project includes the following directions that are completed and in progress:

- A draft Protocol was prepared and approved on the introduction of amendments and addenda into 2000 Agreement;
- A draft new basin Agreement between Kazakhstan and Kyrgyzstan was prepared;
- Draft Regulations on the International basin council for Chu and Talas Rivers was developed and presented for discussion;
- CTWC website is supported in Russian and in English;
- Recommendations on how to determine shared costs for repair and reconstruction of water management facilities of interstate use were further developed;
- Unified methodologies were developed for measurement of water flow and water discharge for interstate water allocation;
- Water level measuring devices have been installed on facilities of interstate use;
- A preliminary evaluation was carried out on the interrelation of surface and groundwaters in the Chu River basin.

Establishment of a Consultative group of donors

In 2009, after approval of CTWC and representatives of water management agencies in Kazakhstan and Kyrgyzstan, a Consultative group of donors was established (CGD). The main task of CGD is to maintain communication between the donors' community and CTWC.

The general objective of CGD is to facilitate sustainable development in the two transboundary Chu and Talas River basins made possible through the cooperation within CTWC. The establishment of CGD facilitates the coordination between donors supporting CTWC.

IV. Participation in the International Cooperation

Information on activities of the Commission was presented at:

- 5-th World Water Forum held in Istanbul, March 2009 and
- 5-th session of the Meeting of the Parties of the UNECE Water Convention, Geneva, November, 2009;

As well as at:

- A Kyrgyz national seminar "Transboundary water resources management in Central Asia", Bishkek, September 2008;
- A regional workshop "Environmental safety is the most important factor for the use of water resources", Tashkent, October, 2008;
- Second meeting of the Observation Committee of EU project "Water resources management in Central Asia", Dushanbe, September, 2009;

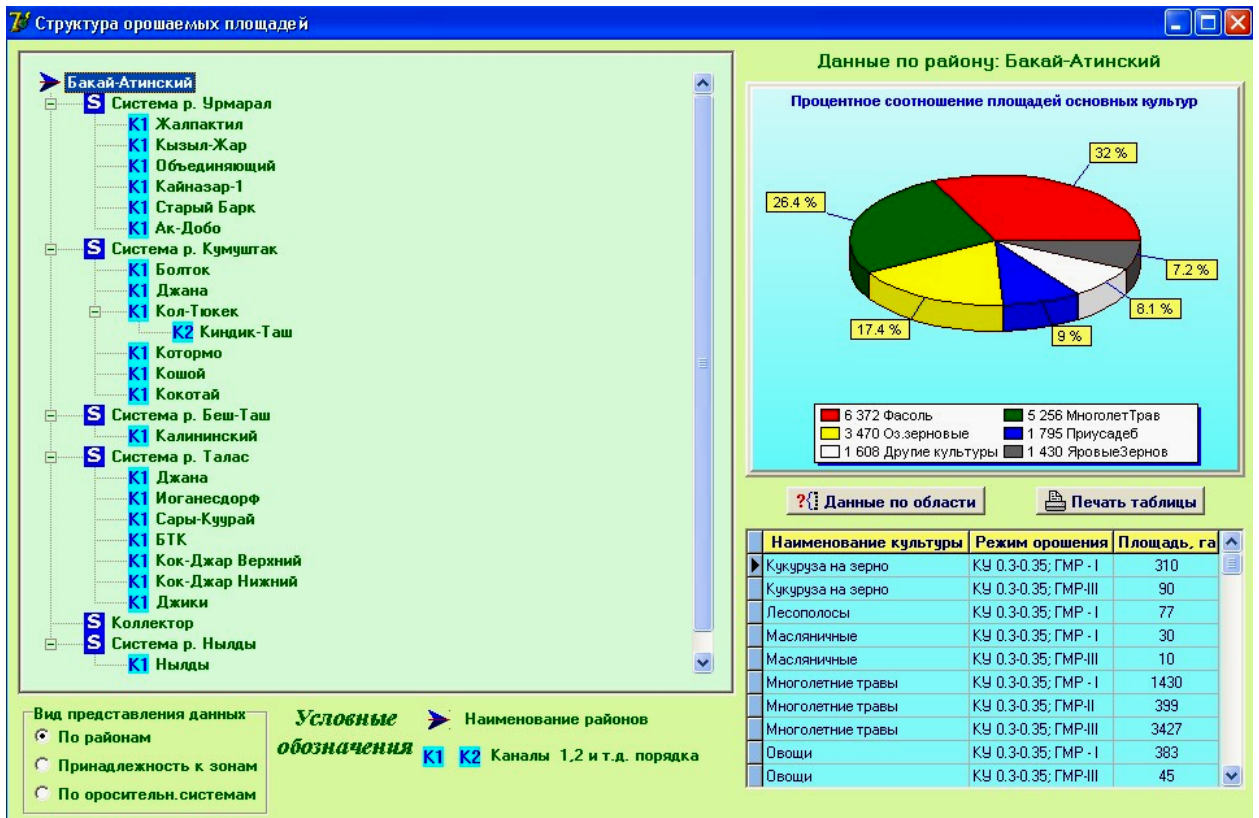
- The Workshop "Transition to rational water use", Taraz, August, 2009;
- The Workshop "Integrated water resources management in the basins of transboundary rivers of Kazakhstan", Almaty, September, 2009;
- The international scientific – practical conference "Modern aspects of natural resources potential use of transboundary rivers in Central Asia", Taraz, November, 2009;
- The international conference "Establishment of interstate basin water management organizations between Kazakhstan and neighboring countries in the sphere of joint management and protection of transboundary water resources", Almaty, December, 2009.

V. Financing Activities on the implementation of Agreement of 21 January 2000

A. Funding for operation and maintenance of water infrastructure of joint use, thousands U.S. dollars				
Countries	2008		2009	
	Chu River basin	Talas River Basin	Chu River basin	Talas River Basin
Kazakhstan	265.2	113.6	341.0	113.6
Kyrgyzstan	933.0	132.0	991.0	180.0
TOTAL	1443.8		1652.6	
Donors				
UNECE / OSCE project	-	-	About 20.0 ¹	-
SDC project	-	-	208. 231	-
TOTAL	-		228. 231	
B. Funding for activities of the Secretariat, including expert support, thousands U.S. dollars				
Countries	2008		2009	
Kazakhstan	5.5		4.5	
Kyrgyzstan	3.5		3.0	
TOTAL	9. 0		7.5	
Donors				
ADB project	-		100. 0	
UNECE / OSCE project	-		About 80.0 ²	
TOTAL	-		180.0	

¹ 15 thousand euro

² 55 thousand euro



Example of computer calculation of required water supply to justify water resources allocation in the Talas River basin



Example of computer calculation of discharges (red graph) from the Orto-Tokoi reservoir on the Chu River in comparison with actual data (green graph)



*Picture above:
Session of the Commission*



*Left picture:
Regular meeting of the Secretariat of the Commission*

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