

Interstate Commission for Water Coordination of Central Asia	BULLETIN № 1 (44)	February, 2007
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**MINUTES OF 45<sup>th</sup> MEETING OF THE INTERSTATE COMMISSION  
FOR WATER COORDINATION (ICWC) REPRESENTED  
BY THE REPUBLIC OF KAZAKHSTAN, THE KYRGYZ REPUBLIC,  
THE REPUBLIC OF TAJIKISTAN, TURKMENISTAN  
AND THE REPUBLIC OF UZBEKISTAN**

13-14 October 2006

Bishkek city

**Participants:**

**ICWC members:**

Ryabtsev Anatoliy Dmitrievich	Chairman, the Committee for Water Resources under the Ministry of Agriculture, the Republic of Kazakhstan
Koshmatov Baratali Turanovich	Director General, the Department for Water Resources under the Ministry for Agriculture, Water Resources and Processing Industry, the Kyrgyz Republic
Zairov Anvar Mukhitdinovich	Deputy Minister for Land Reclamation and Water Resources, the Republic of Tajikistan
Mommadov Begench Amanovich	Deputy Minister for Water Resources, Turkmenistan
Khamraev Shavkat Rakhimovich	Deputy Minister, Chief of Central Water Administration, Ministry of Agriculture and Water Resources (MAWR), the Republic of Uzbekistan

**From ICWC Executive Bodies:**

Dukhovny Viktor Abramovich	Director of SIC ICWC, Professor, Honorary Member of ICWC
Khudayberganov Yuldash Khudayberganovich	Head of BWO "Amudarya"
Khamidov Makhmud Khamidovich	Head of BWO "Syrdarya"
Negmatov Gayrat Abdusattarovich	Chief of ICWC Secretariat, Honorary Member of ICWC
Makarov Oleg Stepanovich	Director of CMC ICWC, Director of PKTI «Vodoavtomatika and metrologiya»

**Invitees:**

Kipshakbaev Nariman Kipshakbaevich	Director of SIC ICWC Kazakh Office, Professor, Honorary Member of ICWC
Kazykeev Ilyas Legaevich	Director of RGP «Tarazvodkhoz»
Pulatov Khamidzhon Pulatovich	Director of RGP «Yuzhvodkhoz»

Uzakbaev Chyngyebek Makeshovich	The First Deputy Director General, the Department for Water Resources under the Ministry for Agriculture, Water Resources and Processing Industry, the Kyrgyz Republic
Dzhayloobaev Abdybai Shakirbaevich	Director of SIC ICWC Kyrgyz Office
Kazakov Mavlon Khakimovich	Representative of the Republic of Tajikistan, IFAS Executive Committee
Rysbekov Yusup Khaydarovich	Assistant of SIC ICWC Director
Khanmedov Guvanch Ovezovich	Deputy Chief of Administration, the Ministry for Water Resources, Turkmenistan
Kuchkarov Sharif Zikrillaevich	Deputy Chief, Administration of Water Resources Balance, MAWR, the Republic of Uzbekistan
<b>Chairman:</b>	Koshmatov Baratali Turanovich – Director General of the Department for Water Resources, the Ministry for Agriculture, Water Resources and Processing Industry, the Kyrgyz Republic

## AGENDA

- 1.1. The report on water withdrawal limits use for the non-growing season 2005-2006 and specification of operating modes of cascade of reservoirs and water withdrawal limits in the Amudarya and the Syrdarya basins in the growing season 2006 (responsible – BWO «Amudarya» and BWO «Syrdarya»).
- 1.2. Implementation of water withdrawal limits and operating modes of cascade of reservoirs in the Amudarya and the Syrdarya basins in the growing season 2006, approval of water withdrawal limits and approval of forecast operating modes of cascade of reservoirs for the non-growing season 2006-2007 (responsible – BWO «Amudarya» and BWO «Syrdarya»).
- 1.3. Water situation in the Syrdarya basin for the growing season 2006 (responsible - SIC ICWC)
2. Information on work progress of International Project «IWRM-Fergana», Phase III (responsible - SIC ICWC)
3. Principles and order of rotation of ICWC executive bodies (responsible – ICWC Secretariat)
4. Results of participation of ICWC representatives in the World Water Forum IV in Mexico (responsible – SIC ICWC)
5. Agenda and venue of the next 46<sup>th</sup> ICWC meeting

### *Additional questions:*

1. Work progress on ADB Technical Assistance Project RETA «Improvement of shared water resources management in Central Asia» (responsible – SIC ICWC)

## 2. Progress in preparation of events devoted to 15th Anniversary of ICWC (responsible – SIC ICWC)

Having approved the agenda, heard the speeches made by the participants of the meeting, and exchanged views, the members of the Interstate Commission for Water Coordination in Central Asia (ICWC) decided:

### **On the first item:**

1. Take into consideration the information of BWO «Amudarya» and BWO «Syrdarya» on implementing water withdrawal limits and ensuring the adopted operating mode of cascade of reservoirs for the non-growing season 2005 - 2006.
2. Take into consideration the information of the Head of BWO «Syrdarya» Khamidov M.Kh. regarding vegetation irrigations 2006. Mark out the absence of quadrilateral Agreement on water and energy resources use in the Syrdarya river basin for 2006 due to non-initialing by the Uzbek part, the facts on non-implementation of provisions of bilateral agreements and protocols as a result of non-water supply to Kayrakkum reservoir as well as the facts on gross violations of agreed water allocation for canal «Dustlik» owing to intervention by local bodies, that brought to significant crop yield loss. Undertake required measures for avoiding such events in the future. An active assistance should be provided for ICWC members in resolving these issues.
3. BWO «Syrdarya», Khamidov M.Kh. should prepare draft Protocol on water and energy resources use in the Syrdarya river basin for the growing season 2007 as well as draft Protocol on water resources use of Kayrakkum reservoir. Undertake measures on providing terms of agreements and protocols in strict accordance with their established conditions.
4. Approve water withdrawal limits and forecast operating mode of cascade of reservoirs in the Amudarya and the Syrdarya basins for the growing season 2006.
5. Approve water withdrawal limits in the Amudarya and the Syrdarya basins for the non-growing season 2006-2007. Agree with forecast schedule of operating mode of cascade of reservoirs for 2006-2007.

### **On the second item:**

1. Approve work progress on International Project «IWRM-Fergana», Phase III. Mark out that developed IWRM approaches, methods and tools as combination of organizational, managerial, technical, information measures as well as prepared tool box for water users allow improving water use effectiveness and irrigated land productivity.
2. Consider that it is required:
  - to disseminate widely IWRM approaches especially to projects financed by MFP;
  - using the experience of Kazakhstan and Kyrgyzstan, to apply for the initiative on acceptance of IWRM principles on a state scale to the Governments and Legislative Authorities of

Tajikistan, Turkmenistan and Uzbekistan, having integrated them into legislation of the countries;

- to strengthen a wide propaganda of IWRM principles in their countries as well as dissemination of experience, management and water pricing tools developed within the Project.

3. Using the experience of Kyrgyzstan, to disseminate the experience on organization of extension services in the states.

4. To apply to international donor organizations with request to support as well as to develop IWRM activities including the Project «IWRM in the Lowlands», paying a special attention to UCC - Water activity in the form of regional support for developing national IWRM plans.

### **On the third item:**

1. Take into consideration the information of SIC ICWC Secretariat regarding performed work to prepare draft Rotation of ICWC bodies.

2. Mark out lack of proposals on Rotation of ICWC executive bodies for the Republic of Uzbekistan.

3. ICWC members should conduct additional activity regarding existing proposals on Rotation of ICWC executive bodies with their respective Governments.

4. ICWC Secretariat should carry out an intensive activity on approaching positions of the states regarding Rotation of ICWC executive bodies.

5. Consider Rotation of ICWC executive bodies during the next ICWC meeting.

### **On the fourth item:**

1. Agree with the information on the results of participation of ICWC representatives in the World Water Forum IV in Mexico.

2. Note that participation of ICWC delegation in WWF IV showed ICWC unity and solidarity when resolving water problems in the region, which are corresponding to development tendencies and Millennium Development Goals.

3. Aim activity of water management organizations at:

- further development of IWRM at all water hierarchy levels;

- strengthening cooperation on transboundary water resources management and developing its main provisions;

- technical and institutional capacity building.

**On the fifth item:**

1. Hold the next 46th ICWC meeting in Turkmenistan in the first quarter 2007.
2. Approve the agenda of the next 46<sup>th</sup> ICWC meeting.

**AGENDA:**

1. Implementation of water withdrawal limits for the non-growing season 2006-2007 and approval of specified operating modes of cascade of reservoirs in the Amudarya and the Syrdarya basins (responsible – BWO «Amudarya» and BWO «Syrdarya»).
2. Water allocation in small transboundary rivers (responsible – SIC ICWC)
3. Continuation of the Project ABD RETA (6163) (responsible – SIC ICWC)
4. Rotation of ICWC executive bodies.
5. Progress on preparation of Central Asian International Scientific-Practical Conference devoted to 15th Anniversary of ICWC, the Republic of Kazakhstan, Almaty city, April 2007 (responsible – SIC ICWC)
6. The information on progress in signing quadripartite protocol on water and energy resources use in the Syrdarya basin for 2007 and the first quarter 2008 (responsible – BWO «Syrdarya»)
7. Venue and agenda of the next 47th ICWC Meeting.

**On the first additional item:**

A special protocolar decision of ICWC was adopted.

**On the second additional item:**

1. Approve the program of events devoted to the 15th ICWC Anniversary.
2. Define the venue of events in Almaty city, date – the third decade of April 2007.
3. Approve the list of organizations and number of persons taking part in anniversary events.
4. ICWC members in collaboration with SIC ICWC should conduct the activity with donor organizations in order to provide sponsor assistance in preparing and holding anniversary events.
5. Request ICWC member for the Republic of Kazakhstan, Ryabtsev A.D., to supervise over Organizational Committee activity.

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6. The working group of Organizational Committee should start to prepare planned events and inform ICWC members on progress in preparing the events.

For the Republic of Kazakhstan

A.D. Ryabtsev

For the Kyrgyz Republic

B.T. Koshmatov

For the Republic of Tajikistan

A.M. Zairov

For Turkmenistan

B.A. Mommadov

For the Republic of Uzbekistan

Sh.R. Khamraev



## **PROTOCOLAR DECISION OF ICWC MEETING REGARDING THE ISSUE “HOLDING EVENTS OF THE UN ECONOMIC COMMISSION FOR EUROPE IN CENTRAL ASIA”**

13 October 2006

Bishkek city

1. Approve the UN ECE initiative to hold a special session devoted to the UN ECE Water Convention of 1992 within events dedicated the 15<sup>th</sup> Anniversary of ICWC in Central Asia in April 2007 in Almaty city of the Republic of Kazakhstan.
2. Request the Meeting of the Parties to Water Convention to include the workshop, devoted to national water policy in Central Asia, in Turkmenistan in March 2007, into Work Plan for 2007-2009.
3. Request the Meeting of the Parties to Water Convention to consider inclusion into Work Plan for 2007-2009 of training in the field of transboundary water resources use for capacity building of Central Asian water institutions' personnel to be held in one of the Central Asia states.

For the Republic of Kazakhstan

A.D. Ryabtsev

For the Kyrgyz Republic

B.T. Koshmatov

For the Republic of Tajikistan

A.M. Zairov

For Turkmenistan

B.A. Mommadov

For the Republic of Uzbekistan

Sh.R. Khamraev

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## **REGARDING PROGRESS IN IMPLEMENTING WATER WITHDRAWAL LIMITS AND OPERATING MODES OF CASCADE OF RESERVOIRS IN THE AMUDARYA RIVER BASIN FOR THE GROWING SEASON 2006, APPROVAL OF WATER WITHDRAWAL LIMITS AND AGREED OPERATING MODES OF CASCADE OF RESERVOIRS FOR THE NON-GROWING SEASON 2006-2007.<sup>1</sup>**

### **I. The Amudarya river basin**

*The results of implementation of water withdrawal limits and operating modes of cascade of reservoirs in the Amudarya river basin for the growing season 2006.*

Water availability in given site Atamyrat and upstream of Garagumdarya for the current growing season was 89,6 %; under the norm 47,59 km<sup>3</sup>, the actual one was 42,65 km<sup>3</sup>.

For the beginning of October 2006, water volume for Nurek reservoir was 10 billion 434 million m<sup>3</sup>, under the planned one 10 billion 500 million m<sup>3</sup>.

Water volume in Tyuyamuyun reservoir as for 01.10.2006 was 3 billion 057 million m<sup>3</sup>, against the last year level 4 billion 973 million m<sup>3</sup>.

Actual river flow in site Atamyrat and upstream of Garagumdarya (gauging station Kelif) for the reporting period was 36,679 km<sup>3</sup>, against the last year level 51,796 km<sup>3</sup> or 70,8 %.

Fixed water withdrawal limits use for the reporting period of the growing season 2006 in the light of states looks in the following way:

- Total for the basin fixed water withdrawal limit was used to 95,6 % under the limit 39 billion 988 million m<sup>3</sup>, the actual one was 38 billion 217 million m<sup>3</sup>.
- The Kyrgyz Republic used fixed water withdrawal limit to 1,8 % under the limit 450 million m<sup>3</sup>, actually 8,0 million m<sup>3</sup> were used;
- The Republic of Tajikistan used fixed water withdrawal limit to 84,4 % under the limit 6 billion 818 million m<sup>3</sup>, actually 5 billion 748 million m<sup>3</sup> were used;
- Turkmenistan used fixed water withdrawal limit to 97,8 % under the limit 15 billion 500 million m<sup>3</sup>, actually 15 billion 153 million m<sup>3</sup> were used;
- The Republic of Uzbekistan used fixed water withdrawal limit to 100,5 % under the limit 16 billion 020 million m<sup>3</sup>, actually 16 billion 100 million m<sup>3</sup> were used.

Regarding river reaches, fixed water withdrawal limit use is the following:

1. Upstream – 86,7 %, including Tajikistan - 84,3 %, the Republic of Uzbekistan - 100,6 %.
2. Middle stream – 99,6 %, including the Republic of Uzbekistan - 107,9 %, Turkmenistan - 95,0 %.
3. Downstream – 98,7 % including the Republic of Uzbekistan - 96,4 %, Turkmenistan - 103,5 %.

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<sup>1</sup> Materials for the first item of the agenda of ICWC Meeting 45, 13-14 October 2006, Bishkek city.

Water availability of three main water users in downstream for the reporting period was as follows:

1. Dashoguz province – 103,5 %
2. The Republic of Karakalpakstan - 93,5 %
3. Khoresm province - 102,0 %

Fixed plan of water supply to the Aral and river delta for the reporting period of current growing season was implemented to 25,0 %, under the plan 6 billion 100 million m<sup>3</sup>, actually 1528 million m<sup>3</sup> were supplied.

*Review of water withdrawal limits and approval of operating modes of cascade of reservoirs for the non-growing season 2006-2007 in the Amudarya basin*

According to Uzhydromet forecast and tentative calculations of BWO «Amudarya» water availability in given site Atamyrat and upstream of Garagumdarya is expected below the norm.

Taking into account each state-consumer in the basin, the vegetation results and pre-expected water availability, water withdrawal limits for the non-growing season 2006-2007 were approved, based on which the tentative water intake regimes and preliminary operating mode of cascade of reservoirs in the Amudarya river basin were developed and submitted to ICWC members for consideration.

BWO «Amudarya» proposes the following water withdrawal limits for the non-growing season 2006-2007 per state to ICWC members for consideration:

- for the Republic of Tajikistan it is to fix in volume of 2 billion 864 million m<sup>3</sup>;
- for Turkmenistan it is to fix water withdrawal limit in volume of 6 billion 500 million m<sup>3</sup>;
- for the Republic of Uzbekistan it is to establish water withdrawal limit for the non-vegetation period 2006-2007 in volume of 5 billion 980 million m<sup>3</sup>.

BWO «Amudarya» in collaboration with United Dispatcher Center «Energy» developed operating mode for Nurek reservoir as well as operating mode version for Tyuyamuyun reservoir. These two operating modes have been submitted to ICWC members for consideration.

For the Amudarya downstream it is proposed to fix sanitary-ecological and irrigation releases for the non-growing season in volume – 800 million m<sup>3</sup> including:

- Dashoguz province - 150,0 million m<sup>3</sup>;
- The Republic of Karakalpakstan – 500,0 million m<sup>3</sup>;
- Khorezm province - 150,0 million m<sup>3</sup>.

*It has been also proposed to establish water supply plan to Aral and Priaralie for the non-growing season 2006-2007 taking into account CDN in volume 2 billion 100 million m<sup>3</sup>.*

## II. The Syrdarya river basin

Uzhydromet of the Republic of Uzbekistan issued a tentative precipitation forecast in the Syrdarya river basin for October-February 2006 and preliminary forecast for water discharge for the growing season 2006 on 13 March 2006. According to the forecast, accumulation of precipitation will be 100-150 % in Naryn, Karadarya basins and river basins in Fergana Valley; 100–120 % in Karadarya, Chirchik and Akhangaran basins and 100–110 % in the northern part of Fergana Valley of norm. Snow reserves were 120 – 150% in Chirchik basin; 120–150% in Kashkadarya and Shakhimardan basins. Snow depth in river basins was: Naryn basin 100–120 %; Karadarya basin 90–120 %; Akhangaran 90–120 %.

The final precipitation forecast in the Syrdarya river basin was given on 11 April 2006. According to the forecast, accumulation of precipitation is less than the last one and is 110-120 % in Naryn, Karadarya basins and river basins in the south of Fergana Valley; 100–110 % in Karadarya, Chirchik and Akhangaran basins and 80-100 % the northern part of Fergana Valley of norm. At the same time a tentative forecast for water discharge was given for the growing season (April–September) 2006 for the Syrdarya river basin. According to these forecasts, water resources availability was determined for the growing season 2006 under given water-related situation. Water withdrawal volume was defined for the Syrdarya river and approved at the 44<sup>th</sup> ICWC Meeting in Ashkhabad city on 30-31 March 2006.

Agreement on collaboration in the field of rational water and energy resources use for March 2006 – March 2007 has been signed between the Governments of the Republic of Uzbekistan and the Republic of Tajikistan. The Parties have agreed on the following: the Tajik Party will provide water accumulation in Kayrakkum reservoir in volume 3418 million m<sup>3</sup> of water by 31 May 2006; fix water releases with average daily flow in June – 500 m<sup>3</sup>/s; in July – 600–650 m<sup>3</sup>/s; in August – 600–650 m<sup>3</sup>/s as well as provide reservoir drawdown up to volume 1000–1100 million m<sup>3</sup> in August.

Forecast for operating mode of Naryn-Syrdarya cascade of reservoirs was calculated taking into account signed agreement and based on supposition of average inflow value to upstream reservoirs as well as forecast values of side inflow for the Syrdarya river channel (table 1).

**Table 1**

**Water withdrawal limits from the Syrdarya river  
for the growing season 2006**

River basin, state	Water withdrawal limits for the growing season 2006, (million m <sup>3</sup> )
Total from the Syrdarya river	18712,85
Including:	
The Republic of Kazakhstan	7761,18
The Kyrgyz Republic	246,49
The Republic of Tajikistan	1905,02
The Republic of Uzbekistan	8800,16

As it was noted at the 44<sup>th</sup> ICWC Meeting, available water resources in volume 17 billion 280 million 350 thousand m<sup>3</sup> did not cover required water amount for irrigation in volume 18 billion 712 million 850 thousand m<sup>3</sup>

In this context, it was suggested to the Ministry for Agriculture and Water Resources of the Republic of Uzbekistan and the Committee on Water Resources under the Ministry for Agriculture of the Republic of Kazakhstan to propose to the Government to sign the Agreement on power purchase in volume of 1,72 billion kilowatt with the Kyrgyz Government in order to cover water deficit for irrigation in volume 1 billion 432 million 500 thousand m<sup>3</sup>.

The analysis of some characteristics in operating mode of Naryn-Syrdarya cascade of reservoirs is given below for the last growing season.

**Table 2**

Reservoir	Inflow as for 30. 09. 2006		
	Forecast, million m <sup>3</sup>	Actual, million m <sup>3</sup>	%
Toktogul	9655,46	9501,67	98,40
Andijan	2928,18	2679,58	91,51
Charvak	5287,42	4751,31	89,86
Kayrakkum	7410,86	6458,02	87,14
Chardara	5923,09	3507,63	59,21
TOTAL	31205,01	26898,21	86,19

**Table 3**

Reservoir	Releases as for 30.09.2006 (million m <sup>3</sup> )		
	Forecast	Actual	%
Toktogul	6073,92	5288,80	87,07
Andijan	2592,00	3230,62	124,64
Charvak	4462,56	4156,36	93,13
Kayrakkum	8661,04	7862,22	90,76
Chardara	8177,76	6935,58	84,81
TOTAL	29967,28	27473,58	91,67

**Table 4**

Reservoir	Volume as for 30. 09. 2006 (million m <sup>3</sup> )		
	Forecast	Actual	%
Toktogul	16480,77	17154,00	104,1
Andijan	1330,94	457,40	35,0
Charvak	1272,75	1058,40	83,15
Kayrakkum	1469,46	1168,00	79,5
Chardara	909,6	865,00	95,1
TOTAL	21463,57	20747,10	96,47

The analysis of operating mode of Naryn-Syrdaray cascade of reservoirs for the last growing season showed (see Tables 2, 3, 4) that inflow to upstream reservoirs was from 59,43 to 98,4 %. As a whole inflow to all reservoirs is at the level 86,21 %.

Inflow to Toktogul reservoir was 98,4% of forecast, and releases were 87,1 % of planned values. Average monthly releases were planned from Toktogul: in June - 500,0 m<sup>3</sup>/s, in July - 550,0 m<sup>3</sup>/s and in August - 450,0 m<sup>3</sup>/s. Actual values of releases were: in June - 253,07 m<sup>3</sup>/s, in July - 384,42 m<sup>3</sup>/s and in August - 392,19 m<sup>3</sup>/s. As a result, water accumulation for the growing season in Toktogul bowl was 4200 million m<sup>3</sup> and bowl volume reached 17154,0 million m<sup>3</sup>, irrigation water deficit was observed in river downstream.

On the other hand, as it has been already marked out, Agreement on releases from Kayrakkum for June, July and August was signed between the Governments of the Republics of Uzbekistan and Tajikistan, but, unfortunately, Tajikistan fulfilled its

commitments not in full, although the Uzbek Party provided stipulated inflow to station Akdzhar. Thus, releases from reservoir were 461,0 m<sup>3</sup>/s instead of 500,0 m<sup>3</sup>/s in June, 554,1 m<sup>3</sup>/s instead of 600,0-650,0 m<sup>3</sup>/s in July and 539,2 m<sup>3</sup>/s instead of 600,0-650,0 m<sup>3</sup>/s in August, although average releases for the growing season were 90,76 % of planned values; they were formed due to high releases in April (actual one was 641,0 m<sup>3</sup>/s instead of 500,0 m<sup>3</sup>/s).

Side inflow for rivers of Naryn-Syrdarya cascade of reservoirs for April-September 2006 is given in table 5.

**Table 5**

Parameter (from 1.04.2006 to 30.09.2006)	Forecast, million m <sup>3</sup>	Actual, million m <sup>3</sup>	Norm, Million m <sup>3</sup>	%	
				Forecast	Actual
<i>Side inflows:</i>					
Toktogul – Uchkurgan	1231,98	1169,9	1218,5	94,96	96,01
Uchkurgan,Uchtepe Kayrakkum	3513,96	3188,95	3108,2	90,75	102,6
Andijan – Uchtepe	2541,88	2335,14	2543,3	91,87	91,82
Kayrakkum – Chardara	2867,26	1843,08	3048,96	64,28	60,45
Gazalkent – Chirchik river mouth	868,57	774,21	841,3	89,14	92,00
TOTAL:	11023,65	9311,28	10760,3	84,47	86,53

A very low side inflow should be noted for the whole river channel for the last growing season; if forecast values certainly were 88,0 % of norm, the actual values were 84,0-86,5%. Actual values were especially low for Kayrakkum – Chardara reaches - 60,0-64,0 % of norm.

Water withdrawal for the growing season 2006 is given in table 6. When implementing water allocation, water withdrawal limits approved at ICWC Meeting and applications of the republics were taken into account. For the last growing season water withdrawal was on average 86,60 % of limits and at the same time transit to the Syrdarya downstream exceeded 287,37 million m<sup>3</sup>.

**Table 6**

Republic – water user	ICWC limit, million m <sup>3</sup>	Actual million m <sup>3</sup>	%
The Kyrgyz Republic	246,49	155,59	63,12
The Republic of Uzbekistan	8820,55	8600,7	97,51
The Republic of Tajikistan	1905,01	1712,98	89,9
The Republic of Kazakhstan	794,02	759,97	95,7

Water supply to the Aral Sea for the end of the growing season and inflow to Chardara reservoir are given in table 7.

**Table 7**

Parameters	According to schedule, million m <sup>3</sup> .	Actual, million m <sup>3</sup>
Supply to the Aral Sea	3473,10	2899,05
Inflow to Chardara reservoir	5923,09	3507,63

#### Conclusions:

The growing season of current year is characterized by low water availability and as a consequence in order to accumulate water volume in reservoirs; releases from all reservoirs, except for Andijan one -124,64 %, have not exceeded 84,0-93,0 % of limits.

Non-observance of planned releases from Toktogul and Kayrakkum reservoirs in June, July and August has brought to acute irrigation water deficit in downstream. As a result of this activity, water discharges from Chardara reservoir were reduced more than by 1,2422 billion m<sup>3</sup>, and water supply to the Aral sea was reduced by 574,0 million m<sup>3</sup>.

The protocol on water and energy resources use in the Syrdarya basin was signed between the Governments of the Republics of Kyrgyzstan and Kazakhstan in Astana on 9 July 2006, which, to a certain extent, assisted to alleviate tension in Kayrakkum upstream. There was stipulated that the Kyrgyz Republic would implement releases from Toktogul for Kazakhstan needs in July - 550,0 m<sup>3</sup>/s, in August - 450,0 m<sup>3</sup>/s and the Republic of Kazakhstan would receive power in volume 1100 million kilowatt/h.

Against the background of difficult water situation for the growing season of current year, facts of unauthorized interventions by local bodies were observed in Syrdarya province in South-Golodnostepsky canal water management that brought to disorganization of interstate water allocation.



In this context, BWO «Syrdarya» considers that such actions are impermissible in the future and intervention by local bodies should be forbidden in water management of interstate sources.

Planned 45<sup>th</sup> ICWC Meeting was not held in July in Kyrgyzstan. Therefore it is proposed to approve water withdrawal limits for the Republics (table 8) and agree forecast operating mode of Naryn-Syrdarya cascade of reservoirs for the non-growing season 2006-2007, which have been accepted and calculated according to forecast values of Uzhydromet for the non-growing season issued № 25-07/93 of 27 September 2006 and based on given water-related situation.

**Table 8**

River basin, state	Water withdrawal limits for the non-growing season 2006-2007, million m <sup>3</sup>
Total from the Syrdarya river	3400,88
Including:	
The Republic of Kazakhstan	400,0
The Kyrgyz Republic	36,66
The Republic of Tajikistan	179,17
The Republic of Uzbekistan	2785,04

## **THE SECOND MEETING OF IWRM WORKING GROUP OF THE PARTIES TO UNECE CONVENTION 1992 ON THE PROTECTION AND USE OF TRANSBOUNDARY WATERCOURSES AND INTERNATIONAL LAKES**

The second Meeting of the Working Group on Integrated Water Resources Management (IWRM) of the Parties to the UNECE Water Convention 1992 on the protection and use of transboundary watercourses and international lakes (hereinafter – Water Convention) took place in Geneva at the Palais des Nations on 26-27 June 2006. The agenda included a wide spectrum of issues. In particular, the following ones were put for discussion:

1. Ratification progress of the Protocols to the Water Convention.
2. Transboundary water management in the UNECE region.
3. Synergies between the Water Convention and the European Water Directive (EWD).
4. Progress of current Work Plan for 2004-2006 in the field of IWRM.
5. The Water Convention contribution to the activity of the UN and other bodies.

Within this agenda the participants discussed the following issues:

1. The UN Water mechanism and preparing the second publication of the UN Report on world water resources development.
2. The UNECE activity in security and cooperation within implementation of UNEP, UNDP, OSCE initiatives in this field.
3. UNDP initiative related to shared waters and opportunities to cooperate with the Water Convention in this field.
4. Project «Capacity building in sustainable use, management and protection of shared international ground water resources in the Mediterranean region»
5. Increasing awareness on the Water Convention and making contribution to hold the 6<sup>th</sup> Conference of Ministers «Environment for Europe» (Belgrade, 10-12 October 2007).
6. The EU Water Convention in the Eastern Europe, Caucasus and Central Asia countries (EECCA).

The Water Convention Secretariat informed on the Water EU Initiative and the UNECE role in developing the dialogues on national policy in EECCA countries.

7. Flood prevention, protection and mitigation.

The issues related to establishment of framework basis for flood prevention, protection and mitigation, including the following components: a) legal (developer – the Greece), b) «light legislation (Germany), c) capacity strengthening (Hungary).

Also draft Model Agreement on transboundary flood prevention, protection and mitigation was discussed and would be submitted for making approval at the 4<sup>th</sup> Meeting of the Parties to the Water Convention (Germany, Bonn, 20-22 November 2006). The agenda

issues were prepared by the Target Group on flood in collaboration with Legal Council and by consultation with the European Commission.

#### 8. Project «Capacity for cooperation in water resources» (CCWR)

Two Work Meetings within CCWR Project of the Water Convention were summarized: the second one – «Information management and the public participation in transboundary water cooperation» (Saint Petersburg, 8-10 June 2005) and the third one – «Joint monitoring and evaluation of shared river basins including systems of early warning and notification» (Tbilisi, 31 October -2 November 2005).

Proposals to continue to implement CCWR Project and follow-up defined within CCWR Project of the Water Convention were discussed. The Secretariat informed on opportunities to conduct the next Meeting within CCWR Project of the Water Convention in 2007 in Kazakhstan (Almaty).

#### 9. Code of Conduct regarding fees for ecosystem services under integrated water resources management conditions (hereinafter – Code of Conduct).

This activity is lead by the Switzerland initiated to develop Code of Conduct at the workshop on ecological services and financing of sustainable ecosystem use and protection (Geneva, 2005). Draft Code of Conduct was prepared by the Drafting Group composed of representatives of the Parties to the Water Convention, international and non-governmental organizations. The participants discussed draft Code of Conduct. It will be changed according to comments and proposals made by the participants. Draft Code of Conduct will be submitted for making approval by the Parties to the Water Convention at their 4<sup>th</sup> Meeting (see above – Germany, Bonn, 20-22 November 2006).

#### 10. Work Plan for IWRM for 2007-2009 and after.

The key issues put for discussion were item 9 («Code of Conduct regarding fees for ecosystem services under IWRM conditions») and item 10 («Work Plan in IWRM field for 2007-2009 and after») to the present paper (item 4 and 13 of original annotated agenda for the 2<sup>nd</sup> Meeting).

Proposals for the future that or this activity were considered, practically regarding all agenda items for the 2<sup>nd</sup> Meeting.

SIC ICWC in Central Asia submitted its comments to «Code of Conduct», the most of which were accepted by the Water Convention Secretariat, and proposals to form «Work Plan on IWRM for 2007-2009» (hereinafter – «Work Plan...»). In particular, SIC ICWC according to «Work Plan...» positions introduced 9 projects, 3 of which given below were supported by the Water Convention Secretariat:

##### 1. Within the Program area I: « Propaganda of the Water Convention, respective activity and advisory servicing». *Position 1. «Information propaganda and dissemination»:*

- Hold a special session devoted to the UNECE Water Convention 1992 and the European Water Directive 2000 within the arrangements on the occasion of the 15<sup>th</sup> Anniversary of ICWC in Central Asia (Almaty, 2007.). *Possible financing source:* the Water Convention Fund;

##### 2. Within the Program area II: «Integrated management of water resources and related ecosystems». 2. «Capacity building» 2.1. «Integrated transboundary water management in EECCA countries»:

- Project 1: «Development of the Strategy on water resources use in transboundary small rivers in Central Asia». *Expected results:* the Strategy on water resources use in

transboundary small rivers in Central Asia, conflict capacity reduction in this field agreed between the Parties. *Leader:* UNECE; *Possible partners:* (external): UNESCAP, EC, GWP; (from countries and the region): ICWC, National Central Water Agencies of Central Asia countries; local communities of respective bordering provinces. *Period:* 2007-2009. *Possible financing sources:* UNECE, UNESCAP, EC.

- Project 2: «Development of rules for transboundary groundwater basins management in Central Asia». *Expected results:* evaluation of water resources in transboundary groundwater basins in Central Asia, their economic, ecological and social values, their use limit for irrigation needs and other purposes, workshops, development of Rules for transboundary groundwater basins management.

*Leader:* UNECE; *Possible partners:* (external): UNESCAP, EC, GWP, UNESCO, FAO, IAH; (from countries and the region): ICWC, National Central Water and Hydrogeological Agencies of Central Asia countries; local communities of bordering provinces in adjacent states; *Period:* 2007-2009; *Possible financing sources:* UNECE, EC, FAO, IAH.

The due should be given to the persons responsible for preparing draft «Work Plan ...», which was clearly stated (position, aim, work scope and geography, leading party, possible partners, etc.), that allowed SIC ICWC to propose possible projects, mainly, regarding «vacant» positions in «Work Plan...». As for the projects supported by the Water Convention Secretariat, they are really of current importance for our region.

Thus, conflict capacity lies in water resources use in transboundary small rivers (TSR). Under certain circumstances, water disputes in bordering districts (local level) can be of policy character and impact on interstate relations, mostly, social and political sustainability in bordering districts of adjacent Central Asian states depends on this problem regulation. Transboundary groundwater basins management is not still regulated internationally and legally in Central Asia. The problem also relates to providing security in bordering districts of adjacent countries.

The representatives of the Secretariat and the Parties to the Water Convention, EECCA countries (Azerbaijan, Hungary, Kyrgyzstan, Serbia, Ukraine, Estonia, etc.), governmental, non-governmental and international organizations (states responsible for certain activities within the arrangements held by it – Germany, Finland, Norway, Italy and others) took part in the Meeting.

Central Asia was represented by Kyrgyzstan (Prof. E. Shukurov), IFAS (Kh. Ibodzoda), CAREC (B. Essekin), SIC ICWC in Central Asia (Rysbekov Yu.Kh.).

The Meeting was held in friendly air and business approach to resolving the set issues was prevailed. Proposals made by the Meeting participants, especially by the representatives of the Parties to the Water Convention, responsible for certain activities, were concrete. It should be marked out that the most of proposals made by the representatives of our region, as well as Azerbaijan and Ukraine, were accepted by the Water Convention Secretariat.

The Meeting Chairman was Ms. Sibilla Vermont (Switzerland). Thanks to her and her team (Ms. Francesca Bernardini, Mr. Rayner Anderleign, Mr. Bo Libert) the participants of the 2<sup>nd</sup> Meeting of IWRM Working Group succeeded in discussing all agenda issues and made corresponding decisions for respectively short time (2 workdays to discuss more than 10 issues, some of which were very «extensive» - Code of Conduct, reports for the activities, Work Plan for 2007-2009).

## **INFORMATION ON ORGANIZATION OF «ADVISORY GROUP FOR INTERNATIONAL SCIENTIFIC COOPERATION WITHIN THE SEVENTH FRAMEWORK PROGRAM OF THE EUROPEAN COMMISSION» ACTIVITY**

The Advisory Group for international scientific cooperation consisting of 27 experts from different countries including 15 persons from EU states, 10 representatives from the countries, which do not join the European Union (India, Mexico, USA, Egypt, Russia, Kenya, Thailand, Morocco, Croatia, Uzbekistan), has been established by the decision of the European Commission Commissioner on scientific researches, Mr. Yan Potochkin. Professor Dukhovny V.A. was invited to take part as a representative of water sector of the third world countries. The group is lead by the Laureate of Nobel Prize, Albert Sassan, microbiologist. The group was formed by the specialists of different professions: social and policy sciences, nanotechnology, energy, agriculture, biotechnology, chemistry, health protection, etc.

Objectives of the Advisory group:

- Prepare recommendations on closer coordination between the programs of «scientific capacity» activity and «Cooperative researches» themes in order to stimulate general partnership between the EU states and the third world countries in the light of attracting interest to cooperate in respective technical fields and at the same time wider involvement of the countries, which are not included into the European Union, into the Seventh Framework Program;
- Define the ways to improve effectiveness of scientific researches within FP7;
- Prepare proposals on scientific policy aspects relating to international cooperation in «scientific capacity» program;
- Aim coordination line of scientific directions between the General directorate of researches and respective General directorates of sectors.

The objective of International Scientific Cooperation (ISC) according to the European Commission decision of 21 September 2005 is to open all FP 7 programs for international cooperation in order to facilitate to increasing effectiveness and competitiveness of the European researches as well as to aim them at resolving global and regional issues of joint interest and benefits.

The EU policy in the field of international scientific cooperation will be aimed at research partnership based on equity law taking into account national, regional and social and economic context and knowledge base of partner countries. Strategic approach is to strengthen the EU competitiveness and global sustainable development with the help of similar partnerships between the EU and the third world countries at bilateral, regional and global levels based on mutual interest and benefits. Supported actions within international cooperation will relate with fulfillment of international EU responsibilities for competitiveness, social and economic progress, nature protection and welfare in the light of global sustainable development.

International cooperation will be implemented for each thematic field and subjects through:

- *opening access to all activities* being implemented on thematic fields for researchers and research organizations from all partner countries of international cooperation and industrialized countries;
- *special actions on cooperation* for each thematic field intended for the third world countries in case of mutual interest to cooperate in concrete subjects. Determination of concrete needs and priorities will be closely related with respective bilateral agreements on cooperation and with current multilateral and bi-regional dialogues between the EU and these states or groups of countries. Priorities will be defined on the basis of concrete needs, capacity and economic development level in the region or country. In this context, strategy and plan for international cooperation realization with concrete target actions within themes or on several themes, for example, health protection, agriculture, sanitation, water, food security, social solidarity, energy, environment, fish industry, aquaculture and natural resources, sustainable economic policy, information and communication technologies, will be developed. These actions will be as priority tools to carry out cooperation between the EU and these countries. In particular, such actions represent actions aimed at strengthening research capacity as well as capacity from the positions of cooperation between the candidate countries in EU, neighboring countries and developing states. These actions will be liable to target «calls» and a special attention will be paid to promoting access for respective third world countries, especially developing ones, to these actions.

These activities will be executed in coordination with international cooperation actions within special programs «People» and «Capacities».

## **THEMES**

### **1. Health**

#### ***International cooperation***

International cooperation is especially important for the fields affected global health issues such as antimicrobial resistance, HIV/AIDS, malaria, tuberculosis and new pandemics. Allocation of priorities in the context of international initiatives such as global event on finding HIV vaccine can be also concerned here. Assuming strengthening of long-term sustainable partnership in the field of clinical researches between Europe and developing countries, the further support will be provided to European and Developing Countries Clinical Test Partnership (EDCTP) in response to its achievements and future needs.

Special collaboration actions will be carried out in the fields formulated through bi-regional dialogue in the third world countries/regions and international forums and can include: policy research in the field of health, health system and research of health sphere, mother's and children's health, reproductive health, control and supervision over ignorable infectious diseases and arising unforeseen policy needs in these regions.

Annual contribution to HFSPO will be made jointly with the theme «Information and communication technologies». It will allow EU member countries not relating to the Big Eight to benefit from this HFSPO program and provide increased accessibility for European researches.

## **2. Food, agriculture and biotechnology**

### *International cooperation*

International cooperation is a priority aspect of researches in the field of food, agriculture and biotechnology and will be especially encouraged in the whole area.

Besides, multilateral cooperation will be carried out in order to address either tasks requiring wide international efforts such as coverage and complexity of biology systems for plants and microorganisms or global challenges and international EU obligations (assurance and safety of food and drinking water, all-round spreading of animal diseases, equitable biodiversity use, fishery rehabilitation up to maximum sustainable yield by 2015 and impact of climate fluctuation or impact on climate fluctuation).

## **3. Information and communication technologies**

### *International cooperation*

International cooperation will be encouraged within information and communication technologies (ICT) theme for resolving issues of joint interest aimed at solutions with strategic partners with high mutual benefit and for facilitating to extend information-oriented society in the countries with transitional economics and in the developing countries. Concrete actions will be defined for countries or regions, with which Europe should develop target cooperation with emphasis on cooperation with countries with transitional economics, developing and neighboring countries.

Contribution will be made to the international program HFSPO together with the Theme 1 «Health protection» in order to support interdisciplinary researches and new joint activities between scientists in various fields and provide an opportunity for EU member states not relating to the Big Eight to benefit from this program.

Activities on this theme support a scheme of Intellectual Productive Systems (IPS), which will allow cooperating in the field of scientific-technological activity for its member regions<sup>2</sup>.

## **4. Nanosciences, nanotechnologies, materials and new production technologies**

### *International cooperation*

Rising international coverage of industrial researches requires a well-coordinated approach to cooperation with the third world countries. Therefore, international cooperation will play an important role in this theme.

Concrete actions can include: activities with industrialized countries and those, who have signed the agreement on scientific-technical cooperation in the field of this theme; special initiatives with countries with transitional economics and the developing countries for providing access to knowledge for them; dialogue on «code of conduct» with large-scale countries for responsible and safe development of nanotechnologies; scheme of Intellectual

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<sup>2</sup> Agreement on scientific-technical cooperation in the field of IPS was foreseen between the European Community and USA, Japan, Australia, Canada, Korea and countries of European Association on Free Trade Norway and Switzerland.

Productive Systems (IPS), which will allow cooperating in the field of scientific-technological activity for its member regions<sup>3</sup>. Initiatives on coordination and exchange of research data (for example, regarding environmental safety and health protection in connection with nanotechnologies) will be also encouraged, preparing basis for general understanding of regulation requirements by policy-makers.

## **5. Energy**

### ***International cooperation***

Taking into account global nature of challenges, threats and possibilities, international cooperation becomes an important element of researches in the field of energy. Concrete actions will support strategically significant multilateral initiatives on cooperation such as International Partnership on hydrogen energy economy (IPHE), International Carbon saving Forum (CSLF), Johannesburg Renewable Energy Coalition (JREC). Other actions, which will be supported and address issues such as environmental consequences of energy policy, interdependency of energy supplies, technology transfer and capacity building.

International scientific cooperation in the field of energy will also maintain the goal of EU Energy Initiative on poverty alleviation and sustainable development raised at World Summit on sustainable development, namely to facilitate achieving Millennium Development Goals through providing poor people with reliable and admissible access to energy resources.

## **6. Environment (including climate fluctuation)**

### ***International cooperation***

Every time ecological problems have transboundary, regional or global scales and international cooperation will be an important aspect of these themes. Special fields relate to international EU responsibilities such as conventions on climate fluctuation, biodiversity, desertification, chemicals and waste substances, decisions of Johannesburg Summit on sustainable development and other relevant conventions. Attention will be also paid to respective researches resulted in strategies and action plans for environment protection of EU<sup>4</sup>.

Scientific-technical partnerships with the developing countries will facilitate to achieve Millennium Development Goals in a number of fields (for example, liquidation of ecological resources loss, improvement of water management, water supply and sanitation, solution of ecological objectives related to urbanization), in spheres, where small and medium size enterprises can also play a key role. A special attention will be focused on interconnection between global ecological problems and regional and local development problems concerned with natural resources, biodiversity, land use, natural and

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<sup>3</sup> Agreement on scientific-technical cooperation in the field of IPS was foreseen between European Community and USA, Japan, Australia, Canada, Korea and countries of European Association on Free Trade Norway and Switzerland.

<sup>4</sup> Examples are Killarny's Recommendations on research priorities in the field of biodiversity to achieve the Goal for 2010 (Malachidsky Conference, 2004), EU Work Plan on climate fluctuation in the context of cooperation on development (2004), priority actions set by UNCCD Committee on science and technics, European and global strategies for safe chemicals and pesticides control, etc.



anthropogenic risks and threats, climate fluctuation, ecological technologies, environment and health protection as well as on tools of strategy analysis. Cooperation with industrialized countries will assist in widening an access to world experience on carrying out researches.

Establishment of GEOSS on observing over Earth surface will contribute to international cooperation to improve understanding of earth systems and sustainability problems and coordinated data collection for scientific and strategic goals.

## **7. Transport (including aeronautics)**

### *International cooperation*

International cooperation is a significant component of the activity on scientific and technological development in this field and will be supported, where there are profits for industry and policy-makers. Wide thematic fields for concrete actions will be those fields, where there are means for engaging into the market (for example, networks and services on global trade development and coordination at continental and intercontinental level), possibilities to gain access to scientific and technological achievements, which are additions to existing European knowledge and of mutual benefit as well as those fields, where Europe meets global requirements (for example, climate fluctuation) or contributes to international standards and global systems (for example, applied logistics and navigation infrastructure).

## **8. Socio-economic sciences and the humanities**

### *International cooperation*

In the case of large-scale international researches, international cooperation will be developed in all fields of these themes. Concrete actions will be undertaken for international cooperation on many selected themes on multilateral and bilateral basis established in terms of needs of partner countries as well as Europe countries.

## **9. Security and space**

### **9.1. Security**

#### *International cooperation*

International cooperation in security researches will be implemented according to internal and external policy aspects of EU security. Special requirements and criteria for international cooperation can be specified in work program.

Concrete actions for international cooperation will be undertaken, where there is mutual benefit regarding EU security policy such as research of global actions to ensure security.

### **9.2. Space**

#### *International cooperation*

Space use and research in their nature are a global case. Effective international cooperation in space field will allow improving EU policy status in the world and its reputation for

scientific superiority and strengthening its economic competitiveness. Cooperation in space sphere will also facilitate to achieve goals of foreign EU policy (for example, support for developing and neighboring countries).

For these reasons space should be deemed as privileged sector for developing international activity, in particular in collaboration with main and new space states such as Russia, USA, China, India, Canada, Japan, Ukraine and other countries realizing space activity.

Efforts will be made to develop decisions use based on space research results for supporting sustainable development, especially in Africa. It relates to global approach used GMES regarding monitoring over environment<sup>5</sup>.

## **Special program «Ideas»**

### **Goals**

Goal of special program «Ideas» is to improve excellence, dynamism and creativity of European researches and Europe attractivity for the best researchers from European and the third world countries as well as for industry research investments through establishment of competitive all-European mechanism for financing «border researches» being conducted by special teams.

### **Actions**

A chief researcher will be hired by a legal entity of member state or associated country. Other team members can be assigned by the same legal entity or other legal entities of member states, associated countries or the third world countries. Cooperation between team members, hired by legal entities beside of a chief researcher, should be coordinated in terms of established scientific value added of project, in particular, when a legal entity is involved from the third world country.

## **Special program «People»**

International aspect as a principal component for human resources in scientific-research activity in Europe will be addressed through carrier development as well as strengthening and enrichment of international cooperation with the help of researchers and involving scientific talents into Europe. International aspect will be included into the program «Actions of Mary Curie» and additionally will be a subject for certain actions.

### **International aspect**

Accepting the international aspect as a principal component for human resources in scientific-research activity of Europe, this aspect will be addressed by target actions for career development of European researchers as well as international cooperation strengthening with the help of researchers.

Career development of scientists from EU member countries and associated countries will be supported by:

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<sup>5</sup> For example, Kyoto protocol, UN Convention on desertification control, UN Convention on biodiversity, World Summit decisions on sustainable development 2002 and decisions of «Big Eight» Summit 2005.

- i. international scholarship for study abroad with obligatory return for experienced researchers within life study and advancing in knowledge in order to obtain new experience and knowledge;
- ii. grants for return and international reintegration for experienced researchers after gaining international experience. Within this action relationship establishment between scientists from the EU member countries and the associated countries abroad will be supported to inform them actively and involve into the European Research Area events.

International cooperation will be supported by the help of researchers based on:

- i. International scholarships for studying in Europe to involve highly qualified researchers from the third world countries into the EU member countries and the associated states for improving knowledge and building relations at high level. Researchers from the developing countries and the countries with transitional economics can receive support for return stage. Relationship establishment among scientists from the third world countries in the EU member states and the associated countries will be also supported to structure and develop their contacts with their regions.
- ii. Partnerships between several research organizations in Europe and one or several organizations from:
  - Countries covered by the European neighborliness policy
  - Countries, with which EU concluded agreements on scientific and technical cooperation.

Based on joint programs the Community support will be provided for short-term exchange of young and experienced researchers, for organizing win-win conferences and other measures as well as for developing systematic exchange by rational methods in the light of human resources issues in scientific-research activity.

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## **MEETING OF HIGH-LEVEL GROUP RESPONSIBLE FOR DEVELOPING AGREED MECHANISM ON WATER AND ENERGY REGULATION IN THE SYRDARYA AND THE AMUDARYA RIVER BASINS<sup>6</sup>**

**(6 October 2006, Moscow)**

After discussing the Meeting agenda of the 1st High-level Group (HLG) responsible for developing agreed mechanism on water and energy regulation in the Syrdarya and the Amudarya river basins HLG made the decision:

*1. To organize activity of High-level Group responsible for developing agreed mechanism on water and energy regulation in the Syrdarya and the Amudarya river basins.*

1. To elect Ryabtsev Anatoliy Dmitrievich, the Chairman of the Committee on Water Resources under the Ministry for Agriculture of the Kazakh Republic, as the Chairman of High-level Group responsible for developing agreed mechanism on water and energy regulation in the Syrdarya and the Amudarya river basins.

2. To agree with the proposal made by the Secretary General of the Eurasian Economic Community (EEC) and to appoint Mironenko Alexander Petrovich, Advisor of Organizational and Analytical Department, as Executive Secretary for High-level Group responsible for developing agreed mechanism on water and energy regulation in the Syrdarya and Amudarya river basins.

3. To request the Secretariat of EEC Integration Committee to present composition of High-level Group responsible for developing agreed mechanism on water and energy regulation in the Syrdarya and the Amudarya river basins (Annex 1) to EEC Interstate Council (level of Heads of States) for making approval in accordance with established procedures.

4. Executive Secretary of High-level Group should organize preparation of draft Provision on High-level Group responsible for developing agreed mechanism on water and energy regulation in the Syrdarya and the Amudarya river basins and present it at the next HLG Meeting.

5. To agree with the proposal made by the Byelorussian and the Russian Parties regarding including representatives of management organizations in the field of energy (according to Government representation) into the composition of High-level Group responsible for developing agreed mechanism on water and energy regulation in the Syrdarya and the Amudarya river basins.

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<sup>6</sup> The Eurasian Economic Community. Integration Committee

*2. Regarding measures for adaptation of international agreements concluded by Organization “Central Asian Cooperation” (OCAC) member countries and other OCAC documents within the Eurasian Economic Community in the light of water and energy issues and their practical execution (EEC Interstate Council Decision (level of Heads of States) of 23 June 2006 №300)*

1. To take into consideration the information of Secretariat of EEC Integration Committee on measures adapt international agreements concluded by Organization «Central Asian Cooperation» member countries and other OCAC documents within the Eurasian Economic Community in the light of water and energy issues and their practical execution.

2. To agree with the proposal made by the Secretariat of EEC Integration Committee regarding expediency to take into account provisions to OCAC documents (Annex 2) in the following drafts being developed within the Eurasian Economic Community:

- concept for forming common energy market of EEC member countries (EEC Interstate Council Decision (level of Heads of States) of 16 August 2006 № 314);

- concept for effective water and energy resources use in Central Asian region (EEC Interstate Council Decision (level of Heads of States) of 16 August 2006 № 315);

- Roadmap for developing cooperation mechanism for EEC member countries in the field of water and energy regulation in Central Asia.

3. To recommend to Secretariat of EEC Integration Committee and experts from the EEC member countries to continue the activity regarding preparing the above mentioned draft documents.

*4. Regarding draft Roadmap for developing cooperation mechanism for the EEC member countries in the field of water and energy regulation in Central Asia and measures to implement it.*

1. To approve draft Roadmap for development of cooperation mechanism for the EEC member countries in the field of water and energy regulation in Central Asia taking into account made comments (Annex 3).

2. To recommend the above mentioned Roadmap for practical use by EEC member countries and the EEC bodies in the activity on providing favorable legal and economical conditions for management subjects of water resources, fuel and energy and other economy sectors in the Eurasian Economic Community member countries in the light of joint hydropower capacity development and water and energy resources use in the Syrdarya and the Amudarya river basins.

3. To request Secretariat of the EEC Integration Committee to submit draft Roadmap for development of cooperation mechanism for EEC member countries in the field of water and energy regulation in Central Asia to the EEC Integration Committee for consideration in accordance with established procedures.

4. HLG Executive Secretary should prepare and present draft plan of priority measures to execute provisions of draft Roadmap for developing cooperation mechanism for the EEC member countries in the field of water and energy regulation in Central Asia at the next HLG Meeting.

*4.1. Regarding draft concept for effective water and energy resources use in Central Asian region*

1. To approve draft concept for effective water and energy resource use in Central Asian region (Annex 4) mainly taking into account comments and proposals and agreed principles for cooperation made by the Russian Party.
2. To request HLG members to present proposals for the above mentioned draft concept in the part of specifying HLG functions and tasks resolved by Water and Energy Consortium to Secretariat of the EEC Integration Committee in time up to 14 October of current year.
3. In order to revise the above mentioned draft concept and taking into account the need to present it at the forthcoming Meeting of the EEC Interstate Council (level of Heads of States) on 27 October 2006, to hold a special HLG Meeting on 23 October 2006 in Moscow.
4. To deem that it is to involve experts from Turkmenistan into development of draft documents on water and energy problems in Central Asian region.

To request the Secretary General of the Eurasian Economic Community to submit the respective proposal to the Government of Turkmenistan.

*4.2. Regarding measures for implementing the EEC Integration Committee Decision of 21 June 2005 № 472 «Progress in executing the EEC Interstate Council Decision (level of Heads of States) of 18 June 2004 № 169 «Cooperation on effective water and energy resources development in the Syrdarya and the Amudarya river basins between the EEC members states »*

1. To take into consideration the information on realizing the EEC Integration Committee Decision of 21 June 2005 № 472.
2. To continue to develop and implement the scheme for covering winter energy resources deficit in the EEC member countries taking into account possible implementation of the above mentioned scheme during autumn-winter period 2006 - 2007 in the light of realization of the EEC Interstate Council Decision of 16 August 2006 №314 «Draft concept for common energy market formation of the EEC member countries».

*5. Regarding organization of electric power transportation from Central Asia states to the Republic of Byelorussia*

To request Secretariat of the EEC Integration Committee to address to the open joint-stock company RAO «Unified Energy Systems of Russia» to present the information on perspectives for improving legal and regulatory framework in power industry of the Russian Federation (in the part related to organization of electric power transit from Central Asia to the Republic of Byelorussia through power networks of «Unified Energy Systems of Russia») at the next High-level Group Meeting.

*6. Regarding principles for implementing water and energy regulation mechanism in the Volga-Kama basin*

1. To take into consideration the information on water and energy resources management experience in the Volga-Kama basin given by HLG member for the Russian Federation, Chief of Federal Agency for Water Resources in the Russian Federation, Khamitov R.Z.

2. To note that during a month the Russian Party will prepare and submit the proposal for establishing the Center of Water and Water-Energy Researches under HLG to HLG for making consideration.

The Parties should review this proposal and present possible comments by the next HLG Meeting.

3. To include this issue into draft agenda of the next HLG Meeting.

*7. Regarding the UN Special Program for Economics in Central Asia (SPECA) and cooperation on water and energy issues between the EEC Integration Committee and SPECA*

1. To take into consideration the information on the UN Special Program for Economics in Central Asia (SPECA) and possible cooperation in water and energy field presented by Secretariat of the UN Economic Commission for Europe.

2. To request Secretariat of the EEC Integration Committee to prepare proposal for cooperation on water and energy issues between the EEC Integration Committee and SPECA and realization of probable projects:

Power effectiveness improvement and power conservation development in the EEC member countries;

- Planning of Strategy for fuel and energy complex development in the EEC member countries up to 2020;

- Prevention of ecological disasters of natural and man-caused character, introduction of innovative ecologically pure and resources conservative technologies;

- water resources management improvement for transboundary river basins.

*8. Regarding the next Meeting of High-level Group responsible for developing agreed mechanism on water and energy regulation in the Syrdarya and the Amudarya river basins and the agenda*

1. To approve in general draft agenda of the next Meeting of High-level Group responsible for developing agreed mechanism on water and energy regulation in the Syrdarya and the Amudarya river basins (Annex 5).

2. During a month HLG members should present proposals for draft agenda to Secretariat of the EEC Integration Committee.

3. HLG Executive Secretary should revise draft agenda for the next HLG Meeting taking into account made suggestions and organize timely preparation of materials to it.

4. To determine date and venue for the next HLG Meeting.

## HIGH-LEVEL GROUP COMPOSITION RESPONSIBLE FOR DEVELOPMENT OF AGREED MECHANISM ON WATER AND ENERGY REGULATION IN THE SYRDARYA AND THE AMUDARYA RIVER BASINS<sup>7</sup>

(given by the Governments of the Eurasian Economic Community member countries)

<b>For the Republic of Byelorussia</b>	<i>Mikhadyuk</i> Michael Ivanovich Deputy Minister for Power Engineering
<b>For the Republic of Kazakhstan</b>	<i>Ryabtsev</i> Anatoliy Dmitrievich Chairman, Committee for Water Resources under Ministry for Agriculture <i>Bertispaev</i> Nesipkul Bertisbaevich Director, Department for Power and Coal Industry under Ministry for Energy and Mineral Resources <i>Lee</i> Valeriy Konstantinovich Managing Director, joint-stock company «KEOOK»
<b>For the Kyrgyz Republic</b>	<i>Tyumenbaev</i> Akylbek Rabaevich Deputy Director, State Inspectorate for Oil and Gas under the Kyrgyz Government <i>Nazarov</i> Zholdoshbek Mashirovich Deputy Director General, open joint-stock company «Power Stations» <i>Borodin</i> Alexey Victorovich Deputy Director General, open joint-stock company «National Power Network of Kyrgyzstan» <i>Zhusumatov</i> Essen Zhusumatovich Deputy Director General, Department for Water Resources under Ministry for Agriculture, Water Resources and Processing Industry
<b>For the Russian Federation</b>	<i>Yanovsky</i> Anatoliy Borisovich Director, Department TEK under Ministry for Industry and Energy <i>Khamitov</i> Rustem Zakievich Chief, Federal Agency for Water Resources

<sup>7</sup> Annex 1 to HLG Meeting Protocol of 6 October 2006 №1



<b>For the Republic of Tajikistan</b>	<b>Yorov</b> Abdullo Yorovich Minister for Energy <b>Naziov</b> Abdukokhir Abdurasulovich Minister for Land Reclamation and Water Resources
<b>For the Republic of Uzbekistan</b>	<b>Khamraev</b> Shavkat Rakhimovich Deputy Minister for Agriculture and Water Resources <b>Abdullaev</b> Ulugbek Shakhidullaevich Deputy Chairman, board of SJSC «Uzbekenergo»

## LIST OF DOCUMENTS RECOMMENDED FOR ADAPTATION IN CONTRACT AND LEGAL FRAMEWORK OF THE EURASIAN ECONOMIC COMMUNITY<sup>8</sup>

<b>Name of document and venue of its approval</b>	<b>Date of signing</b>
Agreement on cooperation in the field of joint water resources use and protection management in interstate sources between the Republics of Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan. <i>Alma-Ata.</i>	18 February 1992
Agreement on fuel, energy and water resources use, construction and operation of gas pipelines in Central Asia region between the Kazakh Government, the Kyrgyz Government and the Uzbek Government. <i>Tashkent</i>	5 April 1996
Agreement on shared and complex water and energy resources use of Naryn-Syrdarya cascade of reservoirs in 1998 between the Kazakh Government, the Kyrgyz Government and the Uzbek Government. <i>Bishkek</i>	17 March 1998
Agreement on water and energy resources use in the Syrdarya river basin between the Kazakh Government, the Kyrgyz Government and the Uzbek Government. <i>Bishkek</i>	17 March 1998
Agreement on shared and complex water and energy resources use of Naryn-Syrdarya cascade of reservoirs between the Kazakh Government, the Kyrgyz Government and the Uzbek Government in 1999.	14.04-06.05 1999
Agreement on parallel operation of energy systems in Central Asia states between the Kazakh Government, the Kyrgyz Government, the Tajik Government and the Uzbek Government. <i>Bishkek</i>	17 June 1999

<sup>8</sup> Annex 2 to HLG Meeting Protocol of 6 October 2006 №1

Name of document and venue of its approval	Date of signing
Protocol on making changes and amendments in the Agreement on water and energy resources use in the Syrdarya river basin of 17 March 1998 between the Kazakh Government, the Kyrgyz Government and the Uzbek Government. <i>Bishkek.</i>	17 June 1999

## LIST OF DOCUMENTS RECOMMENDED FOR ADAPTATION WITHIN THE EURASIAN ECONOMIC COMMUNITY

Name of document and venue of its approval	Date of signing
Statement on water and energy resources use between Heads of the Republics of Kazakhstan, Kyrgyzstan and Uzbekistan. <i>Bishkek.</i>	6 May 1996
Decision on establishment of Intergovernmental Commission for developing proposals to organize international consortiums. <i>Almaty.</i>	7 August 1997
Decision on preparation of proposals to establish international consortiums. <i>Tashkent.</i>	8 December 1997
Protocolar decision on approving Concept of cooperation principles for the Republics of Kazakhstan, Kyrgyzstan and Uzbekistan to establish international consortiums. <i>Akmola.</i>	12 December 1997
Decision on international consortiums. <i>Bishkek.</i>	17 March 1998
Decision on International Water and Energy Consortium. <i>Tashkent.</i>	26 March 1998
Tashkent Declaration on the UN Special Program for Economics in Central Asia (SPECA). <i>Tashkent.</i>	26 March 1998
Protocolar Decision on establishment of International Water and Energy Consortium. <i>Bishkek</i>	26 June 1998
Decision on concepts for establishing water and energy, food and transport consortiums within Organization «Central Asian Cooperation». Dushanbe	18 October 2004
Decision for preparing draft agreements on establishment of international water and energy, transport and food consortiums in Organization “Central Asian Cooperation” member countries. Dushanbe.	27 September 2005

## **ROADMAP FOR DEVELOPMENT OF COOPERATION MECHANISM FOR THE EURASIAN ECONOMIC COMMUNITY MEMBER COUNTRIES IN THE FIELD OF WATER AND ENERGY REGULATION IN CENTRAL ASIA<sup>9</sup>**

Under the centralized economic conditions, complex issues on water and energy regulation in the Aral Sea basin were resolved on the basis of water and energy exchange scheme, where energy resources deficit in certain former USSR republics was covered by planned order. After declaring independence, Central Asian states faced with the problem of organizing effective transboundary water and energy resources management at the regional level, taking into account new economic and political realities.

Cooperation between Central Asian countries in water and energy field has clear enough tendency to strengthening cooperation reflected in respective multilateral and bilateral agreements.

Interstate institutions have been established for the regional cooperation, the most representative ones of which are IFAS (International Fund for the Aral Sea saving), ICWC (Interstate Commission for Water Coordination).

Framework decision of 1998 on water and energy resources use in the Syrdarya river basin between Kazakhstan, Uzbekistan, Kyrgyzstan and Tajikistan provided for establishing compensating mechanisms to regulate operating mode of Toktogul reservoir and interstate water and energy consortium. But it did not perform its main task, which was to provide sustainable management of operating mode of Naryn-Syrdarya cascade of hydropower stations in the interests of all participating countries. In this context, the Heads of the Eurasian Economic Community member countries set the task to prepare draft Agreement on participation of states in developing hydropower resources in the Syrdarya and the Amudarya river basins and mechanism for regulating water and energy regime in the region.

Also Agreement on parallel operation of energy systems between the Governments of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan is not fully fulfilled. The Parties have not yet addressed the issue on regional energy pool. Establishment of open electric power market would enable to optimize power station operation in the region in daily mode as well as in season one and to provide electric power export from the region to markets in the third world countries.

Birth of new independent states led to occurrence of barriers to goods transportation and made it difficult to achieve regional water and energy balance, made it needed to develop single legal space in the field of power carrier transportation as well as investment legislation to address co-financing of projects, in particular, in energy sector.

The principal drawback of existing regional water and energy institutions as well as national ones is lack of effective cooperation mechanisms, although they are used by the same water and energy objects (multipurpose reservoirs).

Mostly decisions are based on achievement of short-term economic benefits. Under independent statehood conditions an agreed approach to improving water use effectiveness is

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<sup>9</sup> Annex 3 to HLG Meeting Protocol of 6 October 2006 №1

seen only in perspective of thorough account of each state interests and finding of mutually acceptable compromises. Such approach will contribute to sustainable development in the country and overcome tension in water and energy relationship in the region.

Existing regional institutional set-up for transboundary water and energy resources management in transboundary rivers during the independence could mitigate possible negative consequences of transitional period and adaptation of the region states to new political and economic conditions. Nevertheless, these drawbacks are visual during critical moments of low-water and high-water years, when lower reaches undergo droughts or sudden flood and upper reaches are exposed to mudflow and flood phenomena and electric power deficit during winter-spring period.

So, in spite of activity on improving water and energy regulation effectiveness in Central Asia as fulfilled within integration organizations and regional structures (with support by international organizations), as before the most acute problem in the region remains to converge positions of the Parties in this issue.

Taking into consideration norms of international water right under specific conditions in the Aral Sea basin, the main principles and requirements were determined to cooperation mechanisms for the Eurasian Economic Community member countries in the light of water and energy regulation in Central Asia, which included:

- Obligatory fulfillment of decisions made;
- Mutual benefit from water and energy regulation for all participants;
- Responsive solution of arising problems;
- Observance of main principles of international water right agreed by the states in the Aral sea basin as applied to specific region conditions;
- Coincidence and coordination in resolving the problems on water and energy regulation and of investments in energy development;
- Responsibility of private business (in case of its participation in investments and regulation) in providing agreed operating modes of reservoirs and energy systems at interstate level;
- Interrelation of water and energy regulation;
- Providing ecological safety;
- Establishing guarantee fund for fulfillment of liabilities at the expense of contributions made by the Parties;
- Creating joint ownership in water resources and energy objects of transboundary character;
- Forming shared water and energy balances;
- Establishing joint management and permanent executive bodies with powers adequate to the requirements;
- Availability of strong policy will to achieve mutually coordinated decisions.

Cooperation mechanisms provide for system of measures of economic, technical, institutional and political character.

*Economic mechanisms* include implementation of joint investment projects, mutually beneficial participation in water and energy regulation with formation of shared ownership in objects of transboundary meaning.

*In technical and technological terms*, cooperation is not of special complexity, as electric power systems in the Eurasian Economic Community member states operate in parallel mode. Executive regional structures – Basin Water Organizations (BWO) «Amudarya» and «Syrdarya», Coordinating Power Council of Central Asia with United Dispatcher Center «Energy» are functioning successfully enough, although without proper mutual coordination and fulfilling decisions made by Central Asia states. Interstate electric power and power carriers' supplies are being realized. At the same time, this activity is still not of systemic character, need for inter-departmental and interstate coordination between operating modes of cascades of hydropower stations and energy systems is remained.

*Institutional issues* include organization of clear cooperation between national bodies for water resources and energy management and regional structures – International Fund for the Aral Sea Saving, Coordinating Power Council of Central Asia with bodies for integration of the Eurasian Economic Community. Council on Power Policy under the Integration Committee of the Eurasian Economic Community plays a coordinating role in organizing this work. The aim of this work should be to establish joint management and permanent executive bodies with providing them with authorities sufficient for fulfilling the functions assigned by founder states.

*Politically* the activity of the Eurasian Economic Community bodies in water and energy sector is regulated through decisions made by the Interstate Council and the Integration Committee of the Eurasian Economic Community, which have set tasks on defining cooperation mechanisms for the Community states.

Also in general the Concept for establishing international water and energy consortium developed by the World Bank support was approved through the Decision made by the Council of Heads of States within Organization «Central Asian Cooperation» (OCAC) of 18 October 2004 (without Russia participation). Analysis of OCAC and the Eurasian Economic Community approaches to water and energy regulation in Central Asia shows lack of distinction in kind.

Decision made regarding OCAC integration into the Eurasian Economic Community and entry of the Republic of Uzbekistan into the Eurasian Economic Community build new opportunities for forming agreed policy and decision making with participation of all stakeholders.

Complexity and multiplicity of the Syrdarya and the Amudarya transboundary rivers resources use problems and their close interrelation with all economic sectors and their functioning and with environmental state also require strong policy will to achieve the objectives set in the Roadmap on the regional scale.

The Roadmap for cooperation mechanism improvement in the Eurasian Economic Community member countries in water and energy regulation in Central Asia represents a plan for stepwise arrangement of favorable legal and economic conditions when integrating water resources and energy sectors of the Community states. It is composed of 3 stages from starting position. Each stage corresponds to higher integration level in the light of shared water and energy resources use and development of transboundary the Amudarya and the Syrdarya rivers.

When developing Roadmap the following provisions and conclusions were taken into account:

- Regional strategy for rational and effective water and energy resources use in Central Asia (developed in 2003 within the UN Special Program for Economics in Central Asia);
- Concept for establishing international water and energy consortium approved mainly by OCAC Council in October 2004;
- Concept for creating Common Power Market of CIS participant countries approved by the Decision made by the Council of Heads of CIS Governments of 25 January 2005;
- Appeal of participants of International Conference on regional cooperation in transboundary river basins to the Governments of the world countries as well as to international organizations (Dushanbe, 2005);
- Recommendations on energy policy made at the 8<sup>th</sup> Council Meeting under the Integration Committee of the Eurasian Economic Community (April 2006).

Roadmap stages are implemented stepwisely, that stipulated by the requirement to converge positions of the Parties regarding general cooperation mechanisms as well as the need to work out cooperation elements practically in investment activity and in water and energy exchange scheme and also in environmental themes.

### **Stage «ZERO»: Current situation.**

At the present time, limited electric power exchange as well as unsystematic supplies of other power resources are observed between the Community states. Accordingly, operating modes of reservoirs in Naryn-Syrdarya and Vakhsh cascade of hydropower stations mainly meet power requirements in upstream countries. Such relationship reduces reliability of forecasts for sectoral development in the Community countries and causes certain damages to them, does not allow obtaining financial resources for shared investing large-scale power bodies and, finally, does not meet the requirements of economic integration of the Community states.

A number of projects directed at stepwise achievement of formulated aims for providing shared rational and effective water and energy resources use and hydropower capacity building in the Syrdarya and the Amudarya river basins are being implemented within the Eurasian Economic Community.

Thus, Sangtudin and Rogun hydropower stations are being constructed in the Tajik Republic by joint efforts of the Russian and the Tajik Parties.

Agreement on joint development of fuel and energy balance for the Community states was approved by the Decision made by the Interstate Council of the Eurasian Economic Community (Government Heads level) № 239 of 27 September 2005.

Council on energy policy under the EEC Integration Committee prepared draft Protocol on conditions for electric power transfers between the Community states. It is planned to sign it at the regular (in 2006) EEC Interstate Council Meeting (Government Heads level).

According to the decision made by the EEC Integration Committee № 472 of 21 June 2005 concernin «Work progress on the EEC Interstate Council Decision (Government Heads level) regarding «Cooperation on effective water and energy resources development in the Syrdarya and the Amudarya river basins between EEC member countries» № 169 of 18 June 2004, ministries and departments in the Community states, which are competent to resolve energy

issues, with participation of interested companies should prepare proposals for developing and implementing scheme on winter power resources deficit compensation in the EEC member countries, taking into account possible realization of the mentioned scheme during autumn-winter period 2005-2006. The aim is to create conditions for accumulating water in reservoirs and providing their irrigation operating mode. In particular, the possibility for natural gas supply through open joint stock company «Gazprom» to Central Asia is being studied for its processing at thermal stations in the region in order to compensate winter energy deficit in the Republic of Tajikistan and the Kyrgyz Republic.

It was proposed to establish Working Group for preparing agreed cooperation mechanism on hydropower capacity use and development in the Syrdarya and the Amudarya Rivers in collaboration with Organization “Central Asian Cooperation” by the EEC Interstate Council Decision (level of Heads of States) № 224 of 22 June 2005. At the present time, High-level Group has been formed. It is comprised of chiefs of state authorities for water resources and energy to implement these tasks practically taking into account OCAC integration into the Eurasian Economic Community and joining of the Uzbek Republic to the Community and according to the Decision made by the EEC Integration Committee of 14 April 2006.

According to the EEC Interstate Council Decision (level of Heads of States) № 300 of 23 June 2006, the EEC member governments and the EEC Integration Committee should assume measures to adapt documents accepted by OCAC bodies within the Eurasian Economic Community including issues related to water and energy themes.

According to the EEC Interstate Council Decision № 315 of 16 August 2006 Concept for effective water and energy resources use in Central Asia region should be prepared taking into account existing experience within Organization «Central Asian Cooperation» and international experience.

### **Stage «ONE»: Preparation of special cooperation mechanism elements.**

Stage «ONE» provides for actions directed at establishing legal and institutional cooperation framework for water and energy resources use and development in transboundary the Syrdarya and the Amudarya rivers, which are consisted in the following:

1. Forming High-level Group responsible for developing agreed mechanism on water and energy regulation in the region, using and developing hydropower capacity in the Syrdarya and the Amudarya rivers.
2. Approving the Roadmap.
3. Approving cooperation principles in water and energy sector of Central Asia within the Concept for effective water and energy resources use in Central Asian region, taking into account norms of international water right and specific features in the Syrdarya and the Amudarya river basins and tasks set by the EEC integration bodies.
4. Approving draft Concept for establishing the Eurasian water and energy consortium.
5. Implementing practically natural gas supply in Central Asia and organizing mutual power resources supplies on commercial basis with concluding long-term agreements between interested participants – establishing «commercial Operator».

6. Developing and approving shared fuel and energy balance of the Community states for 2007-2008, taking into consideration winter power resources deficit compensation in upstream countries.
7. Approving reservoir drawdown schedules for Naryn-Syrdarya and Vakhsh cascades of hydropower stations for the growing season 2007 with condition to operate in favorable irrigation mode.
8. Accepting Protocol on conditions for electric power transfers between the Community states.
9. Organizing preparation of draft Agreement «Cooperation on effective water and energy resources development in the Syrdarya and the Amudarya river basins between the EEC member countries».
10. Preparing financial and investment mechanisms for joint construction of Kambaratin hydropower station - 1 and 2 in Kyrgyzstan.
11. Determining cooperation mechanisms for the EEC bodies with existing structures of regional cooperation in water and energy field, while adapting decisions made within Organization «Central Asian Cooperation» to conditions of implementation compatible with format of the Eurasian Economic Community.
12. Evaluating water and energy regulation impacts on environment in the Aral Sea basin.

This stage completion will enable to start forming special cooperation mechanism elements and implement them practically.

### **Stage «TWO»: Practical execution of cooperation elements**

1. Evaluating commercial Operator effectiveness on mutual power supplies and preparing recommendations for its development.
2. Signing agreement on constructing Kambarata hydropower stations-1 and 2 in Kyrgyzstan, taking into account opportunities for shared management of Naryn-Syrdarya cascade of hydropower stations and determining investment mechanisms for financing.
3. Protecting joint investments through providing national regime or regime of the most favor, depending on the fact which of them are the most favorable one.
4. Implementing practically shared fuel and energy balance of the Community states for 2006-2008.
5. Revealing and removing legal and regulatory barriers for entering national and interstate companies into energy markets in the Community states.
6. Preparing draft Agreement «Cooperation on effective water and energy resources development in the Syrdarya and the Amudarya river basins between the Eurasian Economic Community member countries».
7. Developing environmental requirements and constraints on shared water resources management of transboundary the Syrdarya and the Amudarya rivers.



8. Studying opportunities for the EEC member countries to join UN ECE Water Convention (Helsinki, 1992) (excluding Kazakhstan) and the UN Convention on the right of interstate watercourses use of unnavigable types (1997).
9. Organizing cooperation with existing regional joint bodies on transboundary water resources management.

### **Stage «THREE»: Cooperation mechanism formation**

1. Accepting Agreement «Cooperation on effective water and energy resources development in the Syrdarya and the Amudarya river basins between the Eurasian Economic Community countries» with assigning functions and authorities of joint bodies being established.
2. Forming management and permanent executive bodies on water and energy regulation in the Syrdarya and the Amudarya river basins.
3. Preparing and working out legal and regulatory, institutional and economic framework for regulatory bodies functioning.
4. Optimizing cooperation of national and regional regulatory bodies with commercial operator.
5. Developing and approving national and regional programs for water and energy sector development, determining financial mechanisms for shared investment.
6. Developing and approving programs for maintaining ecological balance on water factor in the Aral Sea basin.

After the Roadmap Stage «THREE» completion, legal and regulatory, economic and institutional conditions will be created for full functioning of the EEC management and executive bodies on shared water and energy resources management in the Syrdarya and the Amudarya river basins. Based on it, an opportunity for integrated water and energy resources management in transboundary rivers is ensured with providing balance of interests for all the Eurasian Economic Community member states.

### **Roadmap formalization**

Draft Roadmap was reviewed at the 8th Meeting of the Council on power policy under the EEC Integration Committee (April 2006) and recommended for using its provisions in practice.

This document is being presented for discussion to High-level Group responsible for developing agreed mechanism on water and energy regulation in the region. According to its results it is proposed to submit draft Roadmap to the EEC Integration Committee for approval.

## CONCEPT FOR EFFECTIVE WATER AND ENERGY RESOURCES USE IN CENTRAL ASIAN REGION<sup>10</sup>

(Draft)

### 1. General provisions

1.1. Concept for effective water and energy resources use in Central Asian region (hereinafter - Concept) was developed according to the Decision made by Interstate Council of the Eurasian Economic Community regarding «Draft concept for effective water and energy resources use in Central Asian region» № 315 of 16 August 2006 taking into account available experience within Organization «Central Asian Cooperation» and international experience.

1.2. Concept represents a set of agreed views and approaches to cooperation principles for the EEC member countries in the field of shared hydropower capacity development and effective water and energy resources use in the Syrdarya and the Amudarya river basins and identifies favorable economic and legal conditions for management bodies in water resources, fuel and energy and other sectors of the Eurasian Economic Community member countries (hereinafter – EEC or the Community) in this field.

1.3. Concept Provisions are the basis for preparing interstate agreement and other legal acts regarding water and energy resources use in Central Asian region.

1.4. Concept is based on interstate and intergovernmental legal and regulatory documents including:

#### ***Documents of Organization «Central Asian Cooperation»:***

1.4.1. Agreement on cooperation in the field of shared water resources use and protection management of interstate sources between the Republics of Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan (*Alma-Ata, 18 February 1992*);

1.4.2. Agreement on fuel and energy and water resource use, gas pipeline construction and operation in Central Asian region between the Governments of Kazakhstan, Kyrgyzstan and Uzbekistan (*Tashkent, 5 April 1996*);

1.4.3. Agreement on water and energy resources use in the Syrdarya river basin between the Governments of Kazakhstan, Kyrgyzstan and Uzbekistan (*Bishkek, 17 March 1998*);

1.4.4. Protocol on making changes and amendments into Agreement on water and energy resources use in the Syrdarya river basin between the Governments of Kazakhstan, Kyrgyzstan and Uzbekistan of 17 March 1998 (*Bishkek, 17 June 1999*);

1.4.5. Statement on water and energy resources use made by the Heads of the Republics of Kazakhstan, Kyrgyzstan and Uzbekistan (*Bishkek, 6 May 1996*);

1.4.6. Tashkent Declaration on the UN Special Program for Economics in Central Asia (SPECA) (*Tashkent, 26 March 1998*);

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<sup>10</sup> Annex 4 to HLG Meeting Protocol of 6 October 2006 №1

1.4.7. Decision on concepts for creating water and energy, food and transport consortiums within Organization «Central Asian Cooperation» {Dushanbe, 18 October 2004};

1.4.8. Protocol on integration of Organization «Central Asian Cooperation» into the Eurasian Economic Community of 23 June 2006.

***Documents of the Eurasian Economic Community:***

1.4.9. Priority directions for the Eurasian Economic Community development for 2003-2006 and after and measures for their implementation approved by the EEC Interstate Council Decision (level of Heads of States) № 152 of 9 February 2004;

1.4.10. Agreement on power system interaction between participative states of Agreement on integration extension in economic and humanitarian fields of 29 March 1996 adopted on 24 November 1998;

1.4.11. Energy policy bases of the Eurasian Economic Community member states approved by the EEC Interstate Council Decision (level of Heads of States) № 103 of 28 February 2003;

1.4.12. Agreement on shared fuel and energy balance development for the Eurasian Economic Community member states accepted by the EEC Interstate Council Decision (level of Heads of States) № 239 of 27 September 2005;

1.4.13. The EEC Interstate Council Decision (level of Heads of States) regarding «Progress in realizing the EEC Interstate Council decision (level of Heads of States) related to providing integration legalization of Organization «Central Asian Cooperation» into the Eurasian Economic Community of 25 January 2006» № 300 of 23 June 2006

The provisions of following documents were taken into account in draft concept:

Agreement on joint actions for resolving the Aral Sea and Priaralie problems, environmental enhancement and providing social and economic development in the Aral region of 26 March 1993.

Agreement on status of International Fund for the Aral Sea saving and its organizations between the Governments of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan of 9 April 1999.

Agreement on cooperation in water issues between Turkmenistan and the Republic of Uzbekistan of 16 January 1996.

When developing draft concept the following points were also taken into account:

- research results and materials for transboundary river water resources use issues presented by the international organizations (World Bank, Asian Development Bank, UN, etc.);
- international experience and approaches to providing institutionally transboundary river basins management.

## **2. Principles for effective water and energy resources use in Central Asian region and cooperation between the Community states in water and energy sector**

Concept provides for developing cooperation on effective water and energy resources use in Central Asia region between the Community states based on the following principles:

Using shared water sources based on agreed shares, taking into account the Parties' interests and *natural ecosystem requirements, including the Aral sea and Priaralie (the Kazakh Party proposal)*;

Cooperation based on conditions of sovereign equality, territorial integrity and mutual benefit from equitable water and energy resources use, taking into account norms of international right;

The right for using water and energy resources within territorial boundaries according to norms of national legislation, taking into account interests of other states and ecosystem requirements;

Not causing damages to adjacent states;

Basin approach to organizing water supply, water use and protection;

Shared participation of stakeholders in implementation of economic, nature-conservative and other measures of interstate importance;

Timely notification of planned measures on water and energy resources use, information exchange on their state and use, on man-caused and natural phenomena able to impact on interests of other states;

Regulation of interstate disputes on water and energy problems based on agreed procedures.

### ***During cooperation between the Community member countries in water and energy sector of Central Asian region the Parties will provide:***

Formation of agreed regional policy for equitable and rational water and energy resources development and use based on norms of international right and its stepwise implementation taking into account social, economic and environmental interests of the Parties;

Unity in resolving the problems related to water and energy regime regulation for river basins in Central Asia region in coordination with electric power consumption regime depending on investments made to construct and reconstruct hydropower and water objects of interstate meaning;

Strengthening and restructurization of acting interstate management and executive bodies with *respective (the Kazakh Party proposal)* status required for fulfilling their functions regarding regulating water and energy regimes of rivers, developing and using water and energy resources, regulating regimes of interstate power transfer and power resources supplies related to execution of agreed water and energy regime of rivers in Central Asia region.

### **3. Aims and tasks for cooperation between the Community states in water and energy sector of Central Asia**

The Eurasian Economic Community member countries identify the following aims and tasks for cooperation in the field of effective water and energy resources use in Central Asia region:

Developing and implementing agreed measures in the field of rational, effective water and energy resources use and development in the region;

Enforcement of *agreements and (the Kazakh party proposal)* contracts between management bodies in the Eurasian Economic Community member countries regarding water and energy resources use;

Providing optimal ratio between irrigation and energy operating modes of cascade of reservoirism taking into account annual and long term cycles of flow fluctuation and water and energy resources balances through operational dispatcher management;

Attracting investments and implementing projects for reconstruction of existing hydropower and water bodies of interstate importance and construction of new ones in order to develop and use effectively water and energy capacity in the region;

Establishing investment incentives for construction and modernization of hydropower and water bodies of interstate meaning when ensuring guarantees for ownership rights and protection of investments;

Creating conditions for production, technological and scientific cooperation in water and energy branches, improving their export capacity and introducing advanced technologies;

Other tasks assigned by the Interstate Council of the Eurasian Economic Community, as well as respective agreements between the Eurasian Economic Community member states.

### **4. The principal directions for cooperation between the Community states on effective water and energy resources use in Central Asia region**

The principal directions for cooperation between the Eurasian Economic Community member states in the field of effective water and energy resources use in Central Asia region are:

To harmonize national legislations and to improve legal framework on shared water and energy resources use in river basins of Central Asia region in the EEC member states;

To work out new legal, organizational and economical mechanisms and to strengthen the existing ones for cooperation and execution of agreements on water resources use and regional energy and fuel trade;

To facilitate collaborative activity of management bodies in the field of rational and effective water and energy resources development and use based on equitable partnership and market mechanisms;

To develop regional trade market for energy resources, construction and other works and services;

To cooperate with international organizations and the interested third parties;

To develop draft international agreements on providing effective operation of water and energy systems using advantages of parallel operation of national power systems and mutually beneficial fuel and energy resources supplies;

To develop measures on preventing damages as a result of activity of management bodies;

To carry out scientific-research work to develop technical and economic rationales for water and energy projects of regional and interregional meaning financed at the expense of internal and external sources;

To fulfill monitoring over practical execution of international agreements between the Parties in the field of rational and effective water and energy resources use.

## **5. Implementation mechanism for the Concept**

Concept implementation is started from signing Agreement on cooperation between the Eurasian Economic Community member states in the field of effective water and energy resources use in Central Asia region by the Community member states.

To regulate activity of the Parties on execution of this agreement the Parties assign the interstate management and executive bodies through the above mentioned Agreement.

**Management body** to regulate the Eurasian Economic Community member states activity on execution of proposed Agreement **is High-level Group** responsible for developing agreed mechanism on water and energy regulation in the river basins of Central Asia region (hereinafter – HLG) formed according to the Decisions made by Interstate Council of the Eurasian Economic Community № 224 of 22 June 2005 and Integration Committee of the Eurasian Economic Community № 577 of 14 April 2006.

### **HLG fulfils the following functions:**

Developing and approving current (for the growing and non-growing seasons) and perspective (taking into account water and energy infrastructure development) balances of water and energy resources in Central Asia region taking into consideration opportunities of the Eurasian Economic Community member states;

Identifying water policy in the region in coordination with developing hydropower in the Syrdarya and the Amudarya river basins and integration processes within the Eurasian Economic Community;

Working out proposals for improving institutional framework on water and energy resources management, forming legal and economic cooperation mechanisms in water and energy field;

Assuming measures for executing the Decision made by Interstate Council of the Eurasian Economic Community (level of Heads of States) № 300 of 23 June 2006 in the light of adaptation of international agreements within the Eurasian Economic Community concluded by Organization «Central Asian Cooperation» (OCAC) member states related to cooperation in water and energy field and other documents adopted by OCAC bodies regarding this issue.

HLG is composed of representatives of the Parties.

Provision on HLG is approved by the Decision made by the Interstate Council of the Eurasian Economic Community (level of Heads of States).

**Executive body** to implement the proposed Agreement is **the Eurasian Water and Energy Consortium** (EWEC, Consortium).

EWEC is established by authorized organizations of the Parties and is an economic and technological body for realizing Agreement and HLG Decisions.

The Chairman of Management Board for the Consortium is included into HLG with the right on advisory voice.

The Consortium is a legal entity in the form of open joint stock company registered within the territory (*the Republic of Kazakhstan – the Kazakh Party proposal*) according to the national legislation.

Dimensions of statutory fund and other conditions for establishing the Consortium are determined according to its constituent documents.

During two months after signing the Agreement the Parties will assign the Consortium founders (authorized organizations of the Parties).

When forming EWEC existing regional bodies and structures are used maximally, which fulfill the functions on water and energy regulation in the region.

### **Issues requiring additional discussion and approval**

EWEC performs the following functions:

To monitor over water and energy balance state in the Syrdarya and the Amudarya river basins including control over electric power supply from hydropower and water bodies of interstate meaning through fulfilling dispatcher functions;

To approve agreements and contracts on electric power supply in order to control HLG decision execution;

To manage existing hydropower and water bodies of interstate meaning; to prepare and implement investment projects related to construction of new hydropower and water bodies of interstate meaning including execution of customer functions for these bodies;

To prepare forecasting water and energy balances (consumption, accumulation and release volume) for each reservoir of Naryn-Syrdarya and Amudarya cascades of reservoirs taking into account priority on irrigation water consumption and assurance in energy resources need of the Syrdarya and the Amudarya upstream states for the winter period as well as guarantees for hydropower production sale during the growing season;

To develop and submit medium-term and long-term electric power and power balances, compensating power resources supplies taking into consideration satisfying the Parties' need in water and energy resources during the growing and non-growing seasons to HLG for making approval, control over their execution;

To develop agreed operating modes of Naryn-Syrdarya and Amudarya cascades of reservoirs, to submit them to HLG for making approval;

To implement agreed operating modes of Naryn-Syrdarya and Amudarya cascades of reservoirs and power operating modes of energy systems of the Parties approved by HLG through the above mentioned Consortium structures and other ones assigned by the Parties;

To develop and implement agreed operating modes of energy systems and power stations of the Parties taking into account agreed operating mode of Naryn-Syrdarya and Amudarya cascade of reservoirs including hydro power station limits over power types in the case of violation of agreed water operating mode;

To develop and execute daily, monthly and yearly operating modes of interstate electric power transfer and transit in inseparable linkage with water and energy resources use in Central Asia region in agreed regime taking into consideration HLG decisions;

To develop schemes and economic operating modes of power systems and measures providing their functioning with obligatory electric power reservation to ensure secure and reliable power supply to the Parties' population and industry;

To organize and conduct activities on liquidating emergency modes threatening to parallel operation of water and energy systems in collaboration with respective management energy bodies of the Parties;

To provide an optimal ratio between energy and irrigation operating modes of cascades of reservoirs;

To carry out mutually beneficial power resources supplies in order to create balance of water and energy interests for Central Asia states;

To organize investment attraction and to implement projects on reconstruction of existing water and energy bodies and construction of new ones in order to develop and use effectively water and energy capacity in the region;

To develop a mechanism for free electric power and other energy resources transfer in Central Asia region;

To define list of existing and being established sites of shared use and conditions for their operation.

To perform another functions resulted from the Agreement and indicated in constituent documents within the Eurasian Water and Energy Consortium.

## **6. The key stages and dates for the Concept implementation**

The key stages and dates for the Concept implementation are determined by Roadmap for developing cooperation mechanism for the Eurasian Economic Community member states in water and energy sector of Central Asia, prepared on the basis of provisions to this Concept and Agreement on cooperation in the field of effective water and energy resources use in Central Asia region between the Eurasian Economic Community member states.









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