Interstate Commission for Water Coordination in Central Asia	BULLETIN №2 (43)	July 2006

CONTENTS

MINUTES OF 44th 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

30-31 March 2006 Ashkhabad city

Participants:

ICWC members:

Kenshimov Amirkhan Kadyrbekovich	Deputy Chairman of the Committee for Water Resources, Ministry of Agriculture, the Republic of Kazakhstan
Beishekeyev Kydybek Kanimetovich	First Deputy Director General of Water Resources Department, Ministry of Agriculture, Water Resources and Processing Industry, the Kyrgyz Republic
Eshmirzoev Ismat Eshmirzoevich	Deputy Minister of Land Reclamation and Water Resources, the Republic of Tajikistan
Altiyev Tekebay Altiyevich	Minister of Water Resources, Turkmenistan, Honorary member of ICWC
Khamrayev 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 i metrologiya”
Umarov Pulatkhon Djakhanovich	Director of ICWC Training Center

Invitees:

Kipshakbaev Nariman Kipshakbaevich	Director of SIC ICWC Kazakh Office, Professor, Honorary Member of ICWC
Shaymordonov Subkhonkul Shomakhmadovich	Director of SIC ICWC Tajik Office
Lysenko Oleg Grigoryevich	Division head, BWO “Amudarya”
Kazakov Mavlon Khakimovich	Representative of the Republic of Tajikistan, IFAS Executive Committee
Ostanov Razok Marizaevich	Chief of Amubukhar water lift canal
Chairman:	Altiyev Tekebay Altiyevich - Minister of Water Resources, Turkmenistan, Honorary member of ICWC

AGENDA

1. Progress in implementation of water withdrawal limits for the non-growing season 2005-2006 and adoption of water withdrawal limits for the growing season 2006 (responsible - BWO "Amudarya" and BWO "Syrdarya").

2. Development of RETA program «Improvement of shared water resources use in Central Asia» and detailed Work Scope and Plan.

3. Comparative data analysis for measuring devices and control facilities as for August 2005 in CAR countries, CIS and far-abroad countries and Proposals to CMC Work Program in the field of metrological provision of water activity of metrological services in CAR countries (responsible CMC ICWC).

4. Consideration of «Provision on ICWC» (responsible SIC ICWC).

5. Agenda and venue of the next 45th ICWC Meeting.

Additional items:

1. Results of participation of ICWC representatives in the 49th ICID Congress in Peking.

2. Annual Scientific-practical Conference in Almaty city.

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 (ICWC) in Central Asia decided:

On the first item:

1. Take into consideration information of BWO "Amudarya" and BWO "Syrdarya" on implementing water withdrawal limits and ensuring the adopted operation mode of the reservoir cascade on the Syrdarya and the Amudarya for the non-growing season 2005-2006. Recognize effective monitoring and regulatiion of operation mode of Chardarya reservoir and providing no-failure winter flood water routing.

2. Adopt the water withdrawal limits from the Amudarya and the Syrdarya for the growing season 2006 and water supply volume to the Aral Sea. Recommend the operation mode of Naryn-Syrdarya reservoir cascade for making agreement with energy organizations in riparian countries. The operation mode should be specified in April-May 2006.

3. ICWC members should implement a permanent control over progress of signed interstate agreements on multipurpose use of water and energy resources in Naryn-Syrdarya reservoir cascade in 2006.

On the second item:

1. Approve the program of arrangements and work progress of national work groups (NWG) and regional group on the Project ABD RETA 6163.

2. Approve new staff of regional work group:

SIC ICWC Representative

BWO Syrdarya Representative

Representative of IFAS Executive Committee

UDC (United Dispatcher Center) Energy Representative – Bychikhina S.P.

BWO Amudarya Representative

CMC Representative as an observer

3. Request Ministry for Agriculture and Water Resources of the Republic of Uzbekistan

to complete NWG staff according to approved Work Program.

4. Recognize the necessity to strengthen cooperation inside national inter-departmental groups in order to take into consideration the interests of all sectors of economics and environment and discovering balance between them.

5. Approve redeveloped draft Agreement «On forming and functioning of national, basin and regional databases of multipurpose use and protection of the Aral Sea basin water resources» and submit it to EC IFAS and Governments of Central Asia countries for consideration.

6. Take into account general approaches given in draft Agreement «On using water and energy resources of the Aral Sea basin».

7. Request the Asian Development Bank to increase financing for a possibility for all members of National Work Groups (in five representatives) from every country to take part in project arrangements.

On the third item:

SIC ICWC members should prepare proposals on delivering and purchasing hydrometric instruments for water management organizations in Central Asia countries.

On the fourth item:

Draft of new "Provision on ICWC", presented and finalized with account of comments and proposals, should be agreed and submitted to IFAS Direction for approval.

On the fifth item:

1. The next 45th ICWC Meeting should be held in July 2006 in Kyrgyzstan.
2. Approve the following agenda of the next 45th ICWC Meeting.

AGENDA:

1. Status report on water withdrawal limits use for the non-growing season 2005-2006 and specification of operation modes of reservoir cascades and water withdrawal limits in the Amudarya and the Syrdarya basins in the growing season 2006 (responsible - BWO "Amudarya" and BWO "Syrdarya").
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 World Water Forum IV in Mexico (responsible – SIC ICWC).
5. Agenda and venue of the next 46th ICWC meeting.

On the first additional item:

1. Strengthen cooperation of NCID with ICID head office.
2. NCID Chairmen of Kazakhstan, Tajikistan and Turkmenistan should take measures on payment of annual membership fees of national organizations to ICID.
3. NCID Chairmen should appoint representatives in ICID Work Groups on water conservation, technical activity, farmers' involvement as well as in Research Groups of Young People Forum and others.

On the second additional item:

Agree with proposals of Work Group of Organizational Committee:

1. In connection with participation of ICWC representatives in World Water Forum IV activity, 17-22 March 2006, Annual Central Asian International Scientific-practical Conference in Almaty city in 2006 should not be held.

2. Beginning from 2007 Central Asian International Scientific-practical Conference in Almaty city should be held once in two years combining with Central Asian International Exhibition «Water» based on International Exhibition Center «Atakent-Expo».

3. Taking into consideration that in 2007 it will be 15th anniversary of ICWC, Jubilee ICWC Meeting, Central Asian International Scientific-practical Conference «Water cooperation for the welfare of sustainable Central Asia development» and Central Asian International Exhibition of water technologies and water sector VII devoted to 15th anniversary of ICWC should be held in April 2007.

4. Entrust SIC ICWC together with BWO «Amudarya», BWO «Syrdarya» and CMC ICWC to prepare the Program on preparation of jubilee arrangements for the next ICWC meeting.

5. ICWC members together with SIC ICWC should make efforts in looking for donors in order to provide sponsor support in carrying out jubilee arrangements.

For the Republic of Kazakhstan	A.K. Kenshimov
For the Kyrgyz Republic	K.K. Beishekeyev
For the Republic of Tajikistan	I.E. Eshmirzoev
For Turkmenistan	T.A. Altiyev
For the Republic of Uzbekistan	Sh.R. Khamrayev

PROTOCOLAR DECISION OF THE 44th 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

30-31 March 2006 Ashkhabad city

1. Take into consideration that ICWC members represented by the Republic of Kazakhstan, the Kyrgyz Republic and the Republic of Tajikistan have made a proposal to include the issue on rotation of ICWC executive bodies into the agenda, but ICWC member for the Republic of Uzbekistan has opposed the investigation of this issues at present ICWC meeting.

2. Taking into account available disputes it has been made a decision to include the above mentioned issue into the agenda of the next meeting and charge ICWC Secretariat with preparation of proposals on principles and order of rotation of ICWC executive bodies.

For the Republic of Kazakhstan	A.K. Kenshimov
For the Kyrgyz Republic	K.K. Beishekeyev
For the Republic of Tajikistan	I.E. Eshmirzoev
For Turkmenistan	T.A. Altiyev
For the Republic of Uzbekistan	Sh.R. Khamrayev

REGARDING IMPLEMENTATION PROGRESS OF WATER WITHDRAWAL LIMITS DURING THE NON-GROWING SEASON 2005-2006 AND APPROVAL OF WATER WITHDRAW LIMITS FOR THE GROWING SEASON 2006 ГОДА[1]

I. The Amudarya river basin

Actual water availability for five months of the non-growing season for the Amudarya river basin in given site Atamurad and upstream of Garagumdarya was 100,8 % of norm. Under the norm 12 billion 716 million m^3 the actual water availability was 12 billion 808 million m^3 (last year it was 11 billion 079 million m^3 or 92,3 % of norm). Expected water availability for the whole growing season will be within the norm.

Fixed water withdrawal limit use for five months of current growing season in the light of states looks in the following way:

-Fixed water withdrawal limit was used in total for the basin by 104,2 % under the limit

[1] Materials for the first issue of the agenda of ICWC Meeting 44, 30-31 March 2006, Ashgabat

11 billion 539 million m^3, the actual one was 12 billion 026 million m^3.

-The Republic of Tajikistan used fixed water withdrawal limit by 68,5 % under the limit 2 billion 249 million m^3, actually 1 billion 540 million m^3 were used;

-Turkmenistan used water withdrawal limit by 111,8 % under the limit 4 billion 747 million m^3, actually 5 billion 307 million m^3 were used;

- The Republic of Uzbekistan used water withdrawal limit by 113,6 %, under the limit 4 billion 307 million m^3, actually 4 billion 895 million m^3 were used.

Fixed water withdrawal limit use in the light of river reaches is the following:

1. Upstream – 73,4 %, including Tajikistan - 68,5 %, Uzbekistan - 120,5 %.
2. Middle stream – 102,4 %, including the Republic of Uzbekistan - 80,2 %, Turkmenistan - 93,9 %.
3. Downstream – 103,7 %, including the Republic of Uzbekistan - 101,5 %, Turkmenistan - 103,0 %.

Water availability of three water users in downstream for reporting period has been arisen in the following way:

1. Dashoguz province – 156,9 %
2. The Republic of Karakalpakstan - 145,2 %
3. Khoresm province - 112,9 %

Water supply plan in Priaralie and Aral was fulfilled by 185,5 % for five months during the non-growing season; 3 billion 246 million m^3 were supplied under the plan 1 billion 750 million m^3 against last year level - 2 billion 293 million m^3.

As for the beginning of March 2006 water volume for Nurek reservoir was 6 billion 555 million m^3, last year at the same time it was 6 billion 427 million m^3.

Water volume in Tyuyamuyun reservoir as for 01.03.2006 was 5 billion 335 million m^3 (last year it was 5 billion 380 million m^3).

As a whole the reporting period during the non-growing season was successfully enough in spite of the fact that there were acute ice conditions in Amudarya downstream in January – February, which were successfully ended. BWO carried out tentative adjustment of water withdrawal limits for five months of current growing season according to the results of normative water withdrawal limit use. Expected results show that as a whole, water withdrawal limits fixed by it will be observed.

Water availability in site Atamurad and upstream of Garagumdarya for the growing season 2006 taking into account natural discharge of Vakhsh river according to Uzhydromet forecast is expected about norm 47,6 km^3.

Taking into account each basin's state-consume, the non-vegetation results and pre-expected water availability, water withdrawal limits for the growing season 2006 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.

For information. Concrete applied volume of water withdrawal limits in the light of countries is given below:

- for the Kyrgyz Republic it is planned to fix water withdrawal limit in volume of 450 million m^3;
- for the Tajik Republic it is proposed to establish water withdrawal limit in volume of 6 billion 818 million m^3;
- for Turkmenistan it is proposed to fix water withdrawal limit in volume of 15 billion 500 million m^3;
- for the Uzbek Republic it is planned to fix water withdrawal limit for the growing season 2006 in volume of 16 billion 020 million m^3.

Total in the Amudarya river basin water withdrawal limit for the growing season 2005 is planned to fix in volume of 38 billion 788 million m^3, including downstream of gauging station

Atamurad and upstream of Garagumdarya – 31 billion 520 million m^3.

BWO «Amudarya» developed the option for TM waterworks facility operating mode for the growing season, which planned satisfactory output for the beginning of non-growing season 2006-2007.

Also BWO «Amudarya» together with United Dispatcher Center «Energy» specified operating mode of Nurek reservoir for the vegetation 2006.

Taking into account water availability forecast for vegetation in site Atamurad and upstream of Garagumdarya, water withdrawal volume, existing water reserves in reservoirs, it is proposed to establish water supply plan to Aral and Priaralie for the vegetation period with account of CDN in volume of – 6 billion 100 million m^3.

In conclusion BWO «Amudarya» proposes:

1. to approve operating modes of cascade of reservoirs, water withdrawal limits, water supply volume to Aral and the Amudarya river delta for the growing season 2006 submitted to ICWC members for consideration.

II. The Syrdarya River Basin

Water withdrawal limits from the Syrdarya river and operating mode of Naryn-Syrdarya cascade of reservoirs for the non-vegetation period of 2005-2006 water year were approved at ICWC meeting in November 2005 in Almaty.

Operating mode and schedule of Naryn-Syrdarya cascade of reservoirs for October 2005 – March 2006 are given in Table № 2.6 with account of actual and forecasting values of inflows, releases, water withdrawals and other values of hydraulic parameters.

The analysis of some characteristics in Naryn-Syrdarya cascade operation is given below for the last period of the non-growing season.

Initial water resources (expected and actual) for investigated period are given in Table 1.

Table 1

Parameter (from 1.10.2005 to 1.03.2006)	Forecast, million m^3	Actual, million m^3	In percent
Inflows to upstream reservoirs:			
To Toktogul	2663,19	2729,9	102,5
To Andijan	726,11	799,71	110,1
To Charvak (of 4 rivers)	1242,5	1200,97	96,6
Total:	4631,8	4730,58	103,0
Side inflow			
Toktogul-Uchkurgan	360,81	371,34	102,92
Uchtepe-Kayrakum	1904,17	4045,08	212,9
Andijan-Uchtepe	2187,13	2502,5	114,42
Kayrakum-Chardara	2235,78	1783,99	80,0
Gazalkent-Chirchik river mouth	732,5	937,48	127,98
Total	7420,39	9640,31	129,9
Total	*12052,19*	*14370,89*	*119,3*

Actual inflow to upstream reservoirs for the last period from 1 October 2005 to 1 March 2006 exceeded a little more forecast value and was 103,0 %.

Average side inflow for the same period in Naryn, Karadarya, Syrdarya and Chirchik river channels was -129,9 %.

As a whole actual inflow for Naryn-Syrdarya cascade of reservoirs was higher than forecast one by 19,3 %.

It should be marked out that releases from Toktogul hydropower station reservoir during the non-growing season 2005-2006 were greatly approximate to recommended figures of ICWC, so we managed to avoid practically releases into Arnasai depression, and at the same time releases to the Aral Sea were about 5092,6 million m^3, under planned values - 4956,46 million m^3.

Reservoir volume change of Naryn-Syrdarya cascade and dynamics of releases for the non-growing season are shown in Tables 2 and 3.

Table 2

Reservoir	Reservoir volume, million m^3				
	For 1.10.2005	For 1.03.2006			For 1.03.2005
		Forecast	Actual	In percent	
Toktogul	18819,0	14432,65	13780,0	95,5	14186,0
Andijan	805,7	1045,97	1070,6	102,3	1392,2
Charvak	1474,20	827,57	638,0	77,1	659,0
Kayrakkum	1467,0	3262,57	3483,0	106,7	3414,0
Chardara	818,00	2762,21	4908,0	177,7	5045,0
TOTAL	23383,9	22330,97	23879,6	106,9	24696,2

Table 3

Name	Releases, million m^3		Disparity +/-
	According to the schedule	Actual	
Toktogul	7037,28	7721,75	684,47
Andijan	484,02	543,98	59,96
Charvak	1747,01	1842,73	95,72
Kayrakkum	8328,96	12409,4	4080,44
Chardara	9266,4	8709,1	-557,3

The greatest deviations from operating mode of Naryn-Syrdarya cascade approved by ICWC have a place in Kayrakkum reservoir, which have released 12409,4 million m^3 instead of scheduled and forecasted 8328,96 million m^3 (Table 3)., or 149,0 % for the last period. It is explained by the fact that side inflow in Syrdarya river channel is 129,9 % of forecast values.

Implementation of water withdrawal limits

Water withdrawals for the non-growing season 2005-2006 approved by ICWC are given in Table 2.4. as for 1 March 2006. Implementation of water withdrawal limits and applications from republics-water users were not taken into account based on water situation.

Table 4

Republic, Water region	ICWC limit, million m^3	Actual, million m^3	In percent
The Kyrgyz Republic	23,34	12,46	53,3
The Uzbek Republic	1724,53	1820,75	105,5
The Tajik Republic	109,45	110,45	100,9
The Kazakh Republic (Dustlik)	400,1	285,21	72,0

On average, actual water withdraw for the last non-growing season 2005–2006 was 82,93 % and at the same time transit to the Syrdarya river exceeded 2,0 billion m^3.

Actual inflows to Chardara reservoir and water supply to the Aral Sea are given in Table 5.

Table 5

Parameters	In million m^3
Inflows to Chardara reservoir	11845,6
Supply to the Aral Sea	5092,6

According to the results of the last non-vegetation period 2005-2006 it can be noted the following.

The last non-vegetation period is caused by high water availability and due to good monitoring over operating mode of Naryn-Syrdarya cascade and operating mode of Chardara reservoir, trouble-free by-pass of flood discharge was provided.

On 3 March 2006 in Tashkent members of Interstate Working Group signed the Protocol on accident-free water pass for autumn and winter period 2005-2006 through Chardara reservoir, where concern over the situation arisen in the Syrdarya river downstream was marked out.

The parties agreed upon water withdrawal increase in the Syrdarya river channel.

At the same time the participants of technical meeting requested water management organizations in Tajikistan to observe transit operating mode of Kayrakkum reservoir and at that the Kazakh party would increase releases from Chardara reservoir and bring to 900-950 m^3/s, when fast ice disappeared in the district of Kzylorda city.

On 9 March 2006 Uzhydromet of the Republic of Uzbekistan gave the tentative precipitation forecast in the Syrdarya river basin for October 2005 – February 2006.

According to the forecast, accumulation of precipitation in basins of Naryn, Karadarya and rivers in the south of Fergana Valley was 100-150 %; in Karadarya, Chirchik and Akhangaran basins - 100–120 % and the north of Fergana Valley - 100–110 % of norm.

Snow reserves in Chirchik basin were 120–150 %; in Kashkadarya and Shakhimardan basins - 120–150 %. Snow depth in Naryn basin was 100–120 %; in Karadarya basin - 90–120 %; Akhangaran - 90–120 %.

At the same time the preliminary forecast of water discharge for the growing season (April–September) 2006 was given for rivers in the Syrdarya basin, according to which water resources availability was determined for the vegetation 2006 under arising water situation (Table 7). Water withdrawal limits from the Syrdarya river were revealed (Table 8), which were recommended for consideration and approval at ICWC Meeting.

Table 7

Balance constituent	Volume, Million m^3
Inflow	
Releases from Toktogul reservoir	3500
Total side inflow	11305,82
Gauging station Chinaz-Chirchik	1500,33
Gauging station Uchtepe	2174,6
Drawdown of in-stream reservoirs, including:	
Kayrakkum	1500
Chardara	4200
Total	24180,75
Outflow	
Losses from in-stream reservoirs	1181,19
Channel losses and environmental releases in downstream	1200,06
Supply to the Aral Sea	4519,15
Total	6900,4
Total, available water resources	17280,35
Required water resources Water withdrawal limit Approved by ICWC	18712,85 K = 0,92

Table 8

River basin, state	Water withdrawal limit for the vegetation 2006, million m^3
Total from the Syrdarya river Including: The Republic of Kazakhstan	18712,85 7761,18
The Republic of Kyrgyzstan The Republic of Tajikistan The Republic of Uzbekistan Including: -water supply to Chardara reservoir	246,49 905,02 8800,16 7126,83

The analysis from Tables 7 and 8 showed that available water resources in volume of 17 billion 280 million 350 thousand m^3 did not cover required water quantity for irrigation in volume of 18 billion 712 million 850 thousand m^3.

In this context, 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 should make the proposal to the Government regarding signing the Agreement on power purchase in volume of 1,12 billion kilowatt with the Kyrgyz Government in order to cover water deficit for irrigation in volume of 1 billion 432 million 500 thousand m^3.

XIX ICID CONGRESS

(Beijing, 10-18th September, 2005)

19th ICID Congress was a very representative and interesting event well-organized by ICID Chinese National Committee under support of the Government of China, the Ministry of Water Resources, the Ministry of Finance, and the Ministry of Science and Technology. His Excellency Vice Premier Hui Liangyu in his welcome and Minister of Water Resources Wang Shucheng in his report demonstrated great and really impressive results of water and land reclamation sector development in their country.

By the end of 2004, 277 thousand km of river dams, 85 thousand reservoirs, with the total regulation volume of 600 km^3 were constructed in China. The irrigated area extended to 56,25 Mha, and 21,2 Mha of waterlogged land and 920 thousand km^2 of eroded land were under control of the Government.

By this time, the country had entered into historical transformation from the long-term shortage of agricultural production, particularly grain, into the abundant yields and continuous growth of grain production. The amusing fact is that China has only one third of the world mean cultivated area per capita and less than one third of the world mean water volume per capita. Moreover, a third of all lands is located in arid zone, and during 51 year since 1950 to 2000, the mean cultivated area subjected to flooding and water-logging increased from 9,37 Mha to 15,9 Mha in 1990-2000. Over last 20 years since 1980 to 2000, Chinese economic growth exceeded 300 %, whereas the total water consumption raised only by 25 %. This achievement was ensured by well-directed, long-term government policy oriented at building water-conservation society through institutional and technological reformation of water and irrigation sectors. This huge program consists of scientifically grounded regional and local water-use technologies, which are based on a network of representative polygons and demonstration plots; certain system of management involving both public participation and scientific achievements; introduction and support of water right subject to “macro-climatic horizons” and “near-term horizons”; establishment of water quotas differentiated according to yearly water availability and technological progress. Re-use of wastewater increased by 7% in the country in the recent 5 years. Agricultural water-conservation technologies have been already implemented on 20,35 Mha or 36 % of normal effectively used area. Water user associations have been developing.

Large-scale hydraulic construction (Three Gorges; flow transfers from the south to the north; etc.) together with shore protection along major rivers made it possible to avoid the catastrophic hazard of floods, create a long-term source of renewable hydropower and achieve good co-existence of human, river and the nature. Annually, 50 thousand square kilometers of eroded soil area is taken over the control.

Chinese scientists and professionals were very active in all events and meeting during the Congress and demonstrated scientific expertise and innovation in all areas of water management and land reclamation.

Major issues were addressed at two plenary meetings:

- item 52 «Improvement of water and soil management for higher effectiveness of irrigated land», and
- item 53 «Harmonizing co-existence with floods»

and at a number of symposiums and sessions, such as:

«Water quality and salinization management»,
«Legal and institutional findings»,
«Irrigation history», «Forum of young professionals»,
«On-farm irrigation technology»,
«Specific law on preparation to the 4th World Water Forum».

Over the last 50 years, irrigation made a valuable contribution to fighting against hunger and food shortage all over the world. As a result, only in decade number of starving men decreased from 840 million, including 200 million children, to 700 people. Nevertheless, population growth from 6,45 billion at present to 7,85 billion in 2025 and almost 9 billion in 2050 has complicated very much to achieve the MDG regarding hunger and poverty eradication. Under development conditions, improvement of irrigation is a first-priority task in developing countries. China and India give typical examples – the two countries, with the largest population in the world, have practically coped with hunger and become the largest exporters of grain and other agricultural products. Bangladesh, which in 1970 could not feed 70 million people, has being approaching to the state of self-sufficiency and supplying food to almost 130 million, mainly at the expense of irrigated agriculture. The ICID President Keizrul bin Abdullah in his report underlined a few essential ways to feed the world:

- further increase crop yields through institutional measures and scientific achievements; try to keep such growth of yield that was achieved in the recent 40 years (grain, for instance, from 1,4 t/ha to 2,8 t/ha). Chinese geneticists show good examples in this direction by raising recently production of drought-tolerant and disease-resistant varieties of cotton and rice; thus, cotton production is expected to increase by 25% as compared to last years;
- develop, where possible in terms of water and land, new irrigation schemes;
- improve water use productivity;
- involve farmers in management and rational use of water, reduce interference of the government by creating favorable (financial, technological, institutional) conditions for farmers;
- draw more attention to positive experience in improving efficiency of dry land use;
- implement IWRM in water sector, particularly in irrigation.

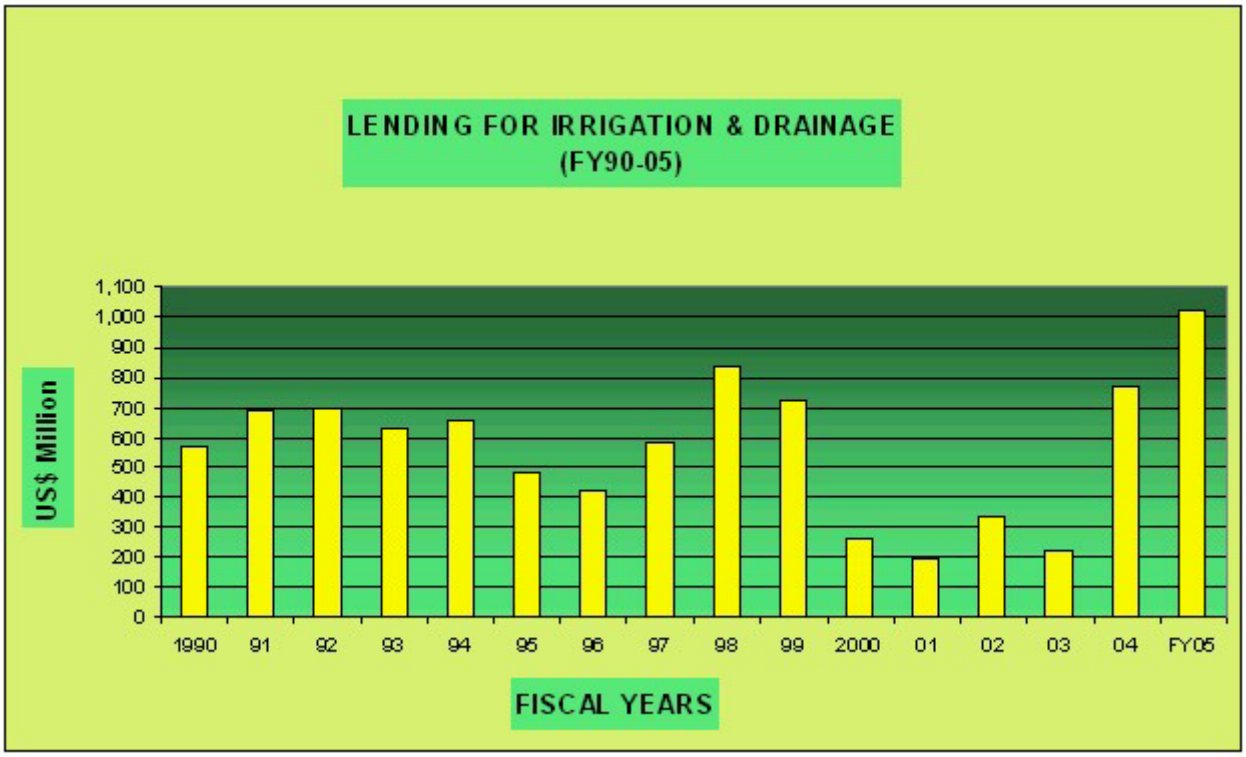
Current situation in the world has caused some revaluation of attitude of international funding institutions to investments in water sector and irrigation. Earlier, amount of annual investments in this sector had exceeded 1,5 billion US$ but then it decreased to 300 million US$ a year. Currently, the limit has been increasing constantly and equals 1,0 billion US$ (this analysis was shown by Salah Darghouti, senior advisor of the World Bank in his key report). «Let me share with you 3 interesting recent developments of our work in agricultural water management under the aegis of the World Bank.

First of all, lending for irrigation and drainage promoted their rehabilitation in the recent years. Besides, it exceeded 1 billion US$ in fiscal year 2005 (as show in the Figure below).

Actually, the exact figure of financial lending in the fiscal year 2005 is 1,069 million US$ (note: WB's fiscal years ends on 30th June).

Second, it is more important that our activities in agricultural water management are in the process of dynamic development. We are advancing to new line that agricultural water

management per se is not an end point but rather a process of resource management to provide one of essential materials for food production, rural development, and the environment. Indeed, in context of lending portfolio for the fiscal year 2005, irrigation and drainage were a critical entry point for future activities:



Water resources management and reforms in irrigation sector (for example, in India projects for water sector reformation in Madhia Pradesh and water management improvement in Maharashtra).

Watersheds and land and water management (for example, project in Iran on integrated water and land resources management in Al'borze).

Agricultural strengthening (almost all projects)»

For the first time, at the meetings dedicated to improvement of irrigated agriculture at on-farm level, Prof. L.S.Pereira and A.Klementa in their reports addressed a need to focus on available potential for improvement of irrigation productivity by increasing the uniformity of soil fertility background and, at the same time, the interaction between irrigation and drainage. On the other hand, timely water delivery to farms should be ensured by coordinating all water hierarchical levels and farmers' demand for water. One can train farmers how to use water rationally, but, first, stable, adequate and timely delivery of water should be ensured for farmers. Research results of Prof. Pereira in China and of SIC ICWC in Fergana Valley were cited as examples.

ICID Work Team for the Aral Sea was convened under the chairmanship of Honorable President Aly Shady. New membership of Central Asian countries in ICID was underlined; however, a number of critical notes were made:

- inactive participation of NCIDs representatives in work teams, in particular, on water conservation, technical activities, farmer involvement, research teams, Youth Forum. Even Bakhodyr Usmanov, who was elected to membership of the Asian Work Team, did not take part in its work;

- non-payment of membership fees by Tajikistan, Kazakhstan, and Turkmenistan.

A protocol on cooperation was signed with the Team on Lake Chad, which had similar grave consequences of water level decrease as in the Aral Sea.

Russian delegation (Prof. L.Kirichev) presented report on prospects and importance for Russia of a possibility to divert a portion of runoff from Siberian rivers to Central Asia. It was underlined that under conditions of increased runoff in Siberian rivers due to climate change, the northern zones in Russia were more interested in water transfer so that to avoid potential floods and flooding of the richest oil fields in north Siberia.

Work Team on the Aral Sea requested ICID Leadership to support inclusion of Central Asian countries in CPSP Program.

Based on Congress' materials, a set of slides will be developed and disseminated among ICWC members.

FOURTH WORLD WATER FORUM «LOCAL ACTIONS FOR A GLOBAL CHALLENGE»

Mexico city, 16-22th March, 2006

The World Water Forums have been initiated by the World Water Council since 1997. The first Forum in Morocco had the aim of attracting attention of the world community to water crisis at the global scale, the second Forum in Hague in 2000 formed water vision of the world as a whole and of continents and regions, while the third one in Kyoto was dedicated to transformation of the vision into the world action plan. Eventually, the Forum, which took in the Mexico City on 16–22th March, 2006 in the Banamex Center brought together the participants under the slogan of developing local actions in order to overcome global tendencies.

The Forum was comprised of several directions: technical session program, Ministerial conference, Children's platform – intergenerational dialogue, mass media and film contests and great exhibition. The scientific sessions were organized in thematic and continental categories, i.e. every day was dedicated to one of the continents and the following themes. 25–33 sessions in three temporal stages were held in each of the directions every day. More than 20 thousand participants from 116 countries were brought together at the Forum.

The Forum was a democratic platform for exchange of opinions and decisions made in area of water and water relations for various organizations and stakeholders from different countries and regions. The Forum was open for all – from water-rich Canada and Brazil, which nevertheless demonstrated their actions for achievement of MDGs and rational water use to extremely water-scarce countries, such as those in Middle East, where less that 300 m^3/capita/year were available. Small Holland demonstrated their experience and achievements in centuries-old fighting against and victory over floods and the ocean despite half of the country was located far below the sea-level. The world leader USA repented errors that caused 100 billion losses from Katrina storm and flooding of Mississippi delta. The world is full of contrast, and lessons learnt allow countries and regions to find right solutions in their relations with water.

The main results of the last Forum were reflected in summaries of thematic sessions and final continental documents making review and evaluation of local actions:

- water should be considered as critically important for all aspects on sustainable

development, including hunger eradication, natural disaster reduction, agricultural and rural development, access to safe drinking water and basic sanitation; water policy should be included in national priorities;

- IWRM is a principle way for water survival by ensuring wider involvement of stakeholders and establishment of public-private partnerships in water supply, sanitation, and food security;

- building and developing local capacities for future development, including training, information technologies and systems, knowledge base establishment, and women participation are the key factors of the long-term sustainability of aquatic environment and water-supply systems;

- a need for substantial increase of investments and financing in operation makes search for new funding sources and forms critical in order to remove a gap between the required and the actual resources and calls for wider use of water user's initiatives for reduction of unit water inputs;

- lessons from recent water-related disasters, as well as successful experiences in their prevention in some countries show that costs of forecasting, prevention, preparation, risk assessment, public warning, and training, in fighting disasters, are much less than those of eliminating effects;

- the climate change becomes increasingly apparent through more frequent and scaled emergence situations; this should be taken into account in planning water-management programs and measures.

During the Asia's Day the former Japanese Prime-Minister Hashimoto announced the Asia-Pacific Water Forum to be established. This was supported by a number of Ministers in this region. In particular, the Tajik Minister of Water Resources A.A.Nazirov thanked UN for supporting an initiative of the President E.Rakhmonov to announce the current decade as one of water for life and underlined a role of cooperation between Central Asian countries for achievement of MDGs.

The Ministerial platform has discussed a number of key positions in water policy: financing water projects; establishing and supporting capacities for development; water guidance and its decentralization; technology transfer and improving water productivity; water monitoring and its mechanisms; water and the environment. Results of the discussion were summarized in the Ministerial Declaration.

NIS countries had poor representation at the Forum: delegation of the Interstate Commission for Water Coordination (ICWC) for Central Asia consisting of 19 people, slightly smaller delegation of the International Fund for Saving the Aral Sea (IFAS), two representatives from Azerbaijan, three from the Russian Federation under the leadership of R.Z.Khamitov, and one representative from Byelorussia. Among more than 100 sessions, only two sessions were dedicated to water problems in Central Asia. Separate issues on current state of affairs in NIS region were addressed at the water infrastructure development and maintenance session, where the participants stressed the catastrophic decrease in irrigated land capacities in the Eastern Europe and NIS due to both lower investments and maintenance costs reduced 6-8 times, with following effect on operability of all water-supply and irrigation systems. At the same time, several achievements in Central Asia regarding implementation of IWRM (Kazakhstan, pilot project in Fergana Valley within the boundaries of Kyrgyzstan, Tajikistan, Uzbekistan), infrastructure development (Turkmenistan) and others were underlined. It was good that water leaders of Russia, Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan took part at the Forum; however, our basic and sectoral science and practice, rich experience, knowledge, unique approaches and achievements had minor presentation at the Forum.

On the eve of this landmark event, the General Assembly of the World Water Council was convened in Mexico. The Assembly outlined a new work strategy of WWC and elected new

Board of Governors. Loic Fauchon has become the President of the Council. Besides, Turkey was selected as a venue for the 5th World Water Forum in 2009.

During the Forum, the International Network of Basin Organizations (INBO) held its meeting and announced the establishment of INBO's Russian-speaking Center in Moscow.

Detail report about the Forum can be found on portal: www.cawater-info.net/4wwf/

MINISTERIAL DECLARATION

We, the Ministers assembled in Mexico City on the occasion of the Fourth World Water Forum (4th WWF), "Local Actions for a Global Challenge" on March 21st and 22nd, 2006,

1. Reaffirm the critical importance of water, in particular freshwater, for all aspects on sustainable development, including poverty and hunger eradication, water-related disaster reduction, health, agricultural and rural development, hydropower, food security, gender equality as well as the achievement of environmental sustainability and protection. We underline the need to include water and sanitation as priorities in national processes, in particular national sustainable development and poverty reduction strategies.

2. Reaffirm our commitment to achieve the internationally agreed goals on integrated water resources management (IWRM), access to safe drinking water and basic sanitation, agreed upon in Agenda 21, the Millennium Declaration and the Johannesburg Plan of Implementation (JPOI). We reiterate the continued and urgent need to achieve these goals and to keep track of progress towards their implementation, including the goal to reduce by half, by the year 2015, the proportion of people unable to reach or afford safe drinking water.

3. Reaffirm, in particular, our commitment to the decisions adopted by the 13th session of the United Nations Commission on Sustainable Development (CSD-13), in April 2005, on policy options and practical measures to expedite implementation in water, sanitation and human settlements. We note with interest the importance of enhancing the sustainability of ecosystems and acknowledge the implementation and importance in some regions of innovative practices such as rain water management and the development of hydropower projects. Further reaffirm the importance of the involvement of relevant stakeholders, particularly women and youth, in the planning and management of water services and, as appropriate, decision-making processes.

4. Take note of the Ministerial Declaration of the Third World Water Forum and recognize the work done within the UN System in support of member States, in order to reach the aforementioned goals. In this regard, we support the coordinating role of UN Water and highlight the need to strengthen its work within its mandate among the relevant UN organizations, funds and programs. We appreciate the inputs from the UN Secretary General's Advisory Board on Water and Sanitation to reinforce ongoing implementation efforts towards reaching water and sanitation targets. We express our continued support to initiatives like the Water for Life Decade and our interest in the United Nations Secretary General's WEHAB Initiative.

5. Recognize the contributions of the 4th WWF and its preparatory regional process to building capacity at international, regional and national levels and promoting the exchange of best practices and lessons learned on international water and sanitation issues.

6. Acknowledge the input of the Forum for the follow up segment on water and sanitation of the 16th Session of the CSD, to be held in 2008 which will play an important role to monitor and follow-up decisions on water and sanitation and their inter-linkages taken at CSD-13, and as an example of coordinated participation and involvement of governments at all levels, civil

society, intergovernmental organizations, non-governmental organizations, private sector, scientific institutions, partnerships, and international financial institutions regarding water issues and other relevant stakeholders.

7. Reaffirm also the decision of the 13th Session of the Commission of Sustainable Development regarding, inter alia:

a) that a substantial increase of resources from all sources, including domestic resources, official development assistance and other resources will be required if developing countries are to achieve the internationally agreed development goals and targets, including those contained in the Millennium Declaration and the JPOI, and

b) that Governments have the primary role in promoting improved access to safe drinking water, basic sanitation, sustainable and secure tenure, and adequate shelter, through improved governance at all levels and appropriate enabling environments and regulatory frameworks, adopting a pro-poor approach and with the active involvement of all stakeholders;

8. Recognize the importance of domestic and international policies that foster and assist building capacities and cooperation at all levels to mitigate water-related disasters including prevention, preparedness, risk assessment, community awareness, resilience and response.

9. Recognize the important role that parliamentarians and local authorities are playing in various countries to increase sustainable access to water and sanitation services as well as to support integrated water resource management. An efficient collaboration with and between these actors is a key factor to meet our water related challenges and goals.

10. Note with appreciation the work of stakeholders at the regional preparatory process towards the 4th WWF as well as during the Forum itself, and take note of the documental output of the said regional preparatory stakeholder process, included as annex to this declaration. As appropriate, this output can be used as source of information for our tasks. We also thank participating parliamentarians and local authorities for their valuable views and opinions expressed during our joint working session at the Fourth World Water Forum, and take note of their statements included as annex to this declaration.

11. Welcome the launch at the 4th WWF of the CSD Water Action and Networking Database (CSD WAND), as a means of implementing the decision from CSD-13 to develop "web-based tools to disseminate information on implementation and best practices" on water and sanitation. The CSDWAND will serve as a platform for exchanging information and best practices, lessons learned and relevant international agreements and policy recommendations. We note that the CSD WAND has been built upon information collected during the 2003-2005 CSD Cycle, in the Portfolio of Water Actions – as an output of the Ministerial Conference of the Third World Water Forum--, and in the database of local actions of the 4th WWF.

12. Encourage all stakeholders, including national and international agencies, and other international and regional fora, such as World Water Week in Stockholm and the water weeks of the regional development banks, to contribute to and exchange information through the WAND.

13. Thank the Government of Mexico and the World Water Council for the organization of the 4th WWF and for their determination to promote better water management through dynamic local actions for a global change.

Mexico City, March 22, 2006.

SESSION «IWRM AS A BASIS OF SOCIO-ECONOMIC DEVELOPMENT IN CENTRAL ASIA»

More than 90 persons including about 35 participants from the region took part in the session. ICID Secretary General, Mr. M. Gopalakrishnan opened the session and marked out IWRM importance as one of the key tools for developing countries and regions in the whole world.

The Chairman of the session, prof. Dukhovny V.A., SIC ICWC Director, ICID Vice-President set out for participants the aim of this session – open discussion of local actions' results on IWRM implementation and its impact on social and economic development in Central Asia countries. Demonstration of lessons, have drawn in the region, and which can be useful for dissemination on global scale. Paying a special attention to advantages, drawbacks and peculiarities of Central Asia region regarding IWRM implementation (unique organizational mechanism, legal regulations, management tools and etc.). Possible new ideas about how to resolve existing political and ecological problems in the region within strategic planning for future social and economic development.

The results of two local actions towards Mexico were given to participants' attention:

Panel 1: Testing practical methods for introducing IWRM concept in Central Asia in pilot projects

The Chairman – Doctor Vadim Sokolov, GWP CACENA Chairman

Members of the group:

Dr. Anatoliy Ryabtsev, Chairman, the Committee on Water Resources under the Ministry for Agriculture of the Republic of Kazakhstan

Mr. Salimzhan Dusmatov, Deputy Minister for Agriculture and Water Resources of the Republic of Uzbekistan

Prof. Yarash Pulatov, «Water» NGO Director, the Republic of Tajikistan

Ms. Eline Boelee, International Water Management Institute (IWMI), Addis-Ababa, Ethiopia

The speakers showed that IWRM implementation could be achieved during the respective transference:

- from administrative management principle to hydrographical one (inside basin or a system);
- from branch management to inter-branch management (inter-departmental coordination);
- from authoritarian management principle «up-bottom» to more democratic double management principle «bottom-up» (water needs and participation) and «up-bottom» (constraints and support);
- from administrative-command management method to corporate one with participation of water users and other stakeholders at all hierarchy levels;
- from resources management to demand management;
- from closed professional systems managing water to open and transparence systems with involvement of water users and stakeholders.

A number of pilot projects, being implemented in the region, are a good basis for testing practical measures in water reforms. The following projects are meant:

- «IWRM in Fergana Valley» Project financed by Swiss Agency for Development and

Cooperation (SDC) and implemented by Kyrgyzstan, Tajikistan and Uzbekistan;

- «IWRM technical justification in Amudarya and Syrdarya lower reaches» Project financed by the State Department of USA and implemented by Kazakhstan, Turkmenistan and Uzbekistan;

- «National IWRM plan and effective water use in Kazakhstan» financed by Norway and promoted by UNDP and GWP CACENA.

Based on the results of the above mentioned pilot projects, including organizational, institutional, technical and other measures, under the condition of sufficient financing and capacity building, a real progress can be achieved in reforming water resources management in Central Asia:

- achieving sustainable water supply; equitable and uniform water distribution between sub-basins along with a significant reduction of non-productive losses;
- introducing democratic water management principles with involvement of all stakeholders;
- partial resolution of social problems connected with water supply to people, especially safe drinking water supply;
- resolving ecological problems related to human activity;
- improving water and land productivity as a final goal.

During the discussion participants marked out the necessity of long-term obligation in order to support current processes and to undertake the following measures:

- national IWRM plans should be developed for all countries of the region; allocation of financial resources from Norway through GWP and UNDP will allow Kazakhstan to start this activity, that will be a good example for other countries of the region. The main objective of national plan is to create a clear concept on IWRM implementation, its aims, consequences, phases and scope of works;
- providing political support for resolving water problems and IWRM;
- public participation at all hierarchy levels;
- capacity building and training;
- legal and financial support;
- technical measures (management tools).

Panel 2: Dialogue of stakeholders on directions of future water resources development in Central Asia

Chairman – Mr. Abdukokhir Nazirov, the Minister for Reclamation and Water Resources of the Republic of Tajikistan

Team members:

Mr. Begench Mommadov, Deputy Minister for Water Resources of Turkmenistan

Dr. Malika Ikramova, Central Asian Scientific-Research Institute of Irrigation (SANIIRI), the Republic of Uzbekistan

Dr. Galina Stulina, leading specialist on climate fluctuation, «Resolution of water deficit and drought problems in Central Asia aroused by climate fluctuation» Project, the Republic of Uzbekistan

Prof. Nariman Kipshakbaev, Director, Kazakh branch, SIC ICWC

Mr. Valeriy Syundyukov, President, “Kazakhstan Su Arnasy” Association, the Republic of Kazakhstan

Speakers were shown that as a whole the current economic status of Central Asia countries and, in particular, water sector made worse and determined breakdown of previous command management system, structure change and water use character, market relations between suppliers and consumers and globalization processes. Also it was marked out increase in number of water users, weak financial basis for water management organizations, monitoring systems, development and management in water sector. Besides, many destabilizing factors are existed, which impact on water and social and economic situation:

- high tempo of population development (2,5-3,2% a year) under unchanged rural population;
- low national income per capita;
- water deficit increase as a result of increase in needs and bad demand management;
- existing ecological damage as a result of lack of attention to ecosystems' requirements (deltas, the Aral sea, etc.).

Under the conditions of independence all these destabilizing factors were intensified by financial instability of water management organizations as well as water users. It was marked out that due to ESCAP «Capacity building on strategic water resources planning and management in Asia and Pacific region» Project was implemented within which SIC ICWC jointly with water bodies started «Strategic water resources planning and management in Central Asia» activity (SPM) from August 2002. The aim of SPM system is to implement IWRM principles for achieving sustainable functioning of water sector, resolving priority objectives of social and economic development.

Initiative on applying SPM methods for developing IWRM strategy is a very important for mutual understanding between decision-makers and using many years' experience in order to develop survival strategy under the conditions of increasing water deficit. It is supposed that participation of technical experts from ministries for agriculture and water resources of five countries will promote in preparing materials on certain organizational, technical and legal measures and legislative initiative, public campaigns for assisting in raising funds.

During the discussion the participants showed that significant results could be achieved with the help of: scenarios of future development for every country and the region in whole with orienting on stable water availability, uniform and equitable water resources distribution in sub-basins under a significant reduction of non-productive losses; introducing principles of democratic water resources management through involvement of all stakeholders; resolving social problems related to equitable water distribution especially drinking water supply; resolving ecological problems concerned with economic activity; and, at last, improving water and land resources productivity.

Setting objectives in water, land, labor and other resources management provides further stable multiple using as a component part of socio-economic development. Also tools especially as improved models and databases are very important for planning and analyzing processes. In order to show what can be expected in case of certain options dictated by policy will, it has been supposed to analyze scenarios. Scenarios are convenient for comparing different options «what if». With the help of them, the most probable results of selections made by decision-makers can be forecasted for the near and long-term future. Scenarios' analysis is based on close professional supervision, and conclusions are sent back to decision-makers, who can make decisions on further national and regional water, salt and hydropower engineering management. As a great number of uncertainties are existed, there is no sense to create many scenarios, if there is a small difference between them. Taking the present situation as a starting point (taking into account possible climate fluctuations), three scenarios can be proposed to the countries for analyzing: optimistic, real and pessimistic.

In conclusion Mr. Oda Hideaki – the Executive Secretary, Japan Water Forum, thanked representatives of Central Asia for their contribution to resolving general water problems in Asia and Pacific region as well as at global level.

DECISION OF «IWRM AS A BASIS OF SOCIO-ECONOMIC DEVELOPMENT IN CENTRAL ASIA» SESSION

Session participants marked out that the time from the moment of World Water Forum III (Kyoto 2003) was a milestone in a sense on the path to introduction of IWRM principles in Central Asia countries water sector for achieving Millennium Development Goals. Now it is a moment when it should be transferred from discussing and formulating approaches to more practical actions. Besides, not only state officials and water managers but also other stakeholders and the public should be involved into this process.

The key regional water issues, problems and obligations were discussed by session participants within two group discussions:

Group 1: Testing practical methods for introducing IWRM concept in Central Asia pilot sites

Group 2: Stakeholders' dialogue regarding directions of future water resources development in Central Asia

As a result of discussions the following conclusions were made:

The Interstate Commission on Water Coordination (ICWC) was accepted by the countries of the region and its outside as the main guide of started water resources reforming in the direction of practical application of IWRM principles. The cooperation of this Commission with Interstate Commission on Sustainable Development in Central Asia as well as participation of key stakeholders (including CAREC, GWP CACENA) are decisive for achieving Millennium Development Goals on water.

There is a full understanding of IWRM concept between stakeholders of all five countries in the region, and this understanding is disseminated in civil society through public propaganda under the aegis of ICWC and GWP CACENA and virtual dialogue on web-site: www.forum.cawater-info.net.

Almost in all countries of Central Asia IWRM concept has been accepted as a basis of public policy in the field of water resources development. Governments of all countries expressed their policy support to IWRM concept, and Kazakhstan even accepted the full obligation on IWRM introduction.

A number of current pilot projects in the region are a good basis for grounding practical measures of water management reforms. Pioneer experience of preparing National IWRM Plan in Kazakhstan (with support of UNDP, Committee on Water Resources of Kazakhstan and GWP) shows that concept should be developed by national coordination committees, which should include stakeholders from all sectors related to water resources and all territorial entities of river basins but not foreign specialists hired by donors.

A special attention should be given to legal and financial IWRM grounding and creating its legal framework, improving mechanisms on pricing of water, legal and financial coordinating aspects of effective water use at all hierarchy levels; determining the role of the Government in case with Water Users Association and other forms of public participation; creating water conservation funds; developing ecological water requirements and guaranteed providing nature priority during water allocation.

Project experience with participation of stakeholders «IWRM in Fergana valley» (SDC-IWMI-ICWC) showed the importance of integrated approach to IWRM introduction, which included the following works:

A wide public participation in water governance and management at all hierarchy levels. Legal registration of Public Water Councils, Canal Committees' Management Organizations and Water Users Associations, financial mechanisms of their participation, training and wide popularization of IWRM principles and achievements with participation of all stakeholders.

Application of information management systems in combination with measurement of water discharge and SCADA.

Capacity building for IWRM introduction is one of the priority works in the region. At the present time ICWC training system (including Training Center and its four branches) has become a permanent «round-table», where representatives of water management organizations and water users and other stakeholders have a possibility to exchange opinions regarding vital water problems and to come to consensus during interactive training. The results of training sessions, workshops and round-tables are presented as protocols and submitted to decision-making authorities of five countries in the region.

The future region development is characterized by increasing water deficit and should be oriented on long-term vision with analysis and selection of optimal and economically effective, ecologically favorable options through the development. At the same time interests of all countries (including Afghanistan) and all branches of economics as well as nature should be taken into account. In this context the following works were determined as necessary ones within the dialogue:

Clear formulation of regional and national water policy.

Planning perspective objectives in water, land, labor and other resources management for sustainable multipurpose use as a component part of socio-economic development and achievement of Millennium Development Goals in the region. Tools in the form of specially developed models and databases for planning and analyzing processes.

A number of technical measures should be supported and executed, in particular: (i) introduction of water account; (ii) participation of hydro meteorological services in IWRM; (iii) creation of extension service for improving water productivity; (iv) computerization and automation of irrigation systems management; (v) works on water conservation.

Mechanism of interstate consultations and complex of interstate agreements and rules on coordination of water allocation, water use regime along transboundary rivers.

Risk management and account of possible climate fluctuations.

The session assessed highly the role of international donors who supported Central Asia countries on their path to the direction of achieving MDG as a whole and in particular on the path to IWRM introduction. A special thankfulness is expressed to CIDA, SDC, ADB, UNDP, Japan Water Forum, the Governments of Norway and Finland, GWP and many others for fruitful organizational and financial support of interstate cooperation in the field of water resources.

The session participants expressed their gratitude to the Government of Mexico and organizers of World Water Forum IV for hospitality and creating excellent conditions for productive activity.

A SPECIAL SESSION OF EC IFAS «PROBLEMS OF THE ARAL SEA BASIN AND WAYS FOR THEIR RESOLVING»

The main aim of the session was to attract attention of world community, international organizations and donors to resolving the Aral Sea basin problems and finalizing the results of International Conference on regional cooperation in transboundary river basins, held in May 2005 in Dushanbe by the initiative of IFAS President, the President of the Republic of Tajikistan E. P. Emomali Rakhmonov.

The session was held under the chairmanship of UNESCO Deputy Director General, Director of World Hydrological Program, Mr. A. Szollosy Nagy with participation of representatives of all structure organizations IFAS, CAREC and international organizations. Specialists in the field of water resources use: Mr. H. Oda – Executive Secretary, Japan Water Forum, Mr. Aslov S.M. – Resident Representative of the Republic of Tajikistan under UN, Mr. O. James – Deputy Secretary General WWF IV, Mr. T. Hannan – Coordinator, Project on joint water resources management, UNDP, Ms. Sh. de Frayche – Head, department on global changes, health and environment, International Water Management Institute and others took part in its activity.

Within this session there were presented:

Consolidated vision prepared by IFAS Executive Committee and agreed with all structural bodies of the Fund and published in the Russian and English languages as separate brochure under the name «Problems of the Aral Seas basin and ways for resolving them;

Review and analysis of the Aral Sea basin Program-2;

Activity of Regional Centre of Hydrology;

ICWC role in regional cooperation in the Aral Sea basin;

Regional cooperation in the field of sustainable development of Central Asia and others.

THE FINAL DOCUMENT OF THE SPECIAL SESSION: «PROBLEMS OF THE ARAL SEA BASIN AND WAYS FOR RESOLVING THEM»

International year of Fresh Water, 2003, and International Tenth Anniversary of «Water for Life» Actions, 2005-2015, declared by UN General Assembly by the initiative of Tajikistan promoted to raise awareness among world public regarding water resources problems and particular the Aral Sea basin problems and to transfer from discussing them, expressing purposes and declaring obligations to executing concrete projects and programs.

Problems of the Aral ecological catastrophe on planet scale and a necessity of resolving them gradually also were raised at:

UN International Conference on sustainable development of the countries in this basin (1995, Nukus);

UN General Assembly Sessions under discussing and decision-making on International Year of Fresh Water, 2003 and International Tenth Anniversary of «Water for life» actions, 2005-2015;

World Summit on sustainable development (Johannesburg, 2002);

International Water Forum III (Japan, Kioto, 2003);

Paneuropian Conference of Ministers for environment protection (Kiev, 2003);

International Forum on Fresh Water (Tajikistan, Dushanbe, 2003);

International Conference on Regional Cooperation in transboundary river basins (Tajikistan, Dushanbe, 2005) and other regional arrangements.

The Heads of Central Asia countries initiated the new Program of concrete actions on improving environmental and socio-economic situation in the Aral Sea basin for 2003-2010 (the Aral Sea basin Program -2).

Central Asia region countries implement certain works, international organizations, countries-donors also provide financial, technical, advisory and other support regarding meeting the Aral crisis. But consequences of the catastrophe are disproportionate to scope of implemented works, thus until it is succeed to stop degradation processes, it is continued the Aral sea drying and a new desert «Aralkum» increasing, glaciers' decreasing, there is clear drinking water deficit, socio-economic issues have not been fully resolved and mainly the reason is water crisis.

We, participants of special session devoted to the Aral Sea basin problems and held within World Water Forum IV:

marking out the significance of local actions in the perspective of global challenges,

supporting Millennium Development Goals and Johannesburg implementation plan as well as Central-Asian initiative on sustainable development,

wishing make a concrete contribution to implementation of UN General Assemble Resolution 58/217 of 23 December 2003 regarding declaring International Tenth Anniversary of «Water for life» actions, 2005-2015,

marking out availability of the Program of concrete actions on improving environmental and socio-economic situation in the Aral Sea basin for 2003-2010 (the Aral Sea basin Program -2), initiated by the Heads of Central Asia countries and corresponding to Millennium Development Goals as well as availability of regional institutional structure – International Fund for the Aral Sea saving,

supposing that World Water Forum IV can be a turning moment in the Aral history directed at its saving,

devoted to regional cooperation in the field of transboundary water resources management,

taking into account real, effective institutional infrastructure proposed by International Tenth Anniversary of «Water for life» actions for ensuring progress in implementation of the agenda on water resources adopted by international community due to combining efforts of all stakeholders - governments, organizations and institutions of UN system, international financial institutes, civil society,

supporting the appeal of the President of the International Fund for the Aral Sea saving, the President of the Republic of Tajikistan Emomali Rakhmonov regarding providing Central Asia countries with effective assistance in decreasing the Aral global ecological catastrophe,

We call:

Governments and international organizations to accept Recommendations and Appeal on regional cooperation in transboundary river basins of International conference participants and to use them in further activity (Dushanbe, Tajikistan, 2005. Site www.transwaterconference2005.org);

to support the initiative of the Republic of Tajikistan regarding preparation of the agreement on partnership of all stakeholders for achieving Millennium Development Goals and finalizing the Aral Sea basin Program for 2003-2010 with undertaking concrete obligations and creating favorable conditions for investments and

to ask UNDP to provide respective technical assistance in it as well as in working out national Strategies on water sectors' development;

to ask Organizational Committee of World Water Forum IV to include the clause on appeal to United Nations Organization with recommendations to consider a possibility on implementing Dushanbe Declaration regulations between the Heads of Central Asia countries of 6 October 2002 regarding creating the mechanism on coordinating international organizations and donors' activities under the aegis of UN for resolving the Aral Sea basin problems into the final Forum document with declaring it as priority pilot region on implementing Millennium Development Goals as well as establishing Advisory Council on water and sanitation under UN General Secretary and appointing its representatives in CA countries – IFAS participants.

to address to International Financial Institutes, International Water Management Institute (IWMI) and other international organizations on providing support in:

joint investigation of the Aral ecological catastrophe impact on climate fluctuation and Central Asia glaciers;

integrated water resources management introduction based on eco-system approach and hydrographical units taking into account water supply to the population, economics sectors and eco-system needs;

implementation of the program on inventorying national water and environment legislations, their mutual adaptation with considering experience of European conventions and other transboundary water basins with further outlet to certain projects of interstate agreements, regional conventions and other possible acts.

widening works on rehabilitating irrigation and collector-drainage systems, establishing Water Users Associations, initiating legal processes on approximation of laws, their adaptation to international water and environment conventions, water conservation stimulation, development of renewable water and energy sources;

for works on improving drinking water supply, sanitation, flood protection, community health protection with paying priority attention to children and future generation;

developing technical and economic assessment of Water and Power Consortium in Central Asia, economic mechanism on water use in the countries and the region as a whole.

We thank Mexico Government, World Water Council, Organizational Committee on preparing and holding World Water Forum IV for excellent its organization and a possibility of taking part in it.

INTERNATIONAL CONGRESS «EQUATECH» VII 2006 «WATER, ECOLOGY AND TECHNOLOGY»

Federal Agency on water resources of the Russian Federation, Federal Agency on construction and housing and utilities of the Russian Federation as well as International Water Association (IWA) organized «EQUATECH» Congress VII on 29 May – 2 June 2006 in Moscow devoted to problems on improving water resources use and management technology in the interests of improving environment situation.

1350 participants from the Commonwealth of Independent States, Europe, China and India came to the Congress. The Congress was accompanied by the exhibition where more than 850 organizations demonstrated their achievements in the field of new technologies.

Central Asia was represented by a large delegation from Kazakhstan at the head of the Chairman of the Committee for Water Resources Ryabtsev A.D., which demonstrated a special show-stand devoted to successes in water supply development in Kazakhstan. Kazakh delegation also made several reports at section meetings of the Congress. The Chief of Water Resources Administration, Ministry of Agriculture and Water Resources, the Republic of Uzbekistan, Tashev R.Kh., Deputy Director of SANIIRI, the candidate of agriculture science, Shirokova Yu.I. represented the Republic of Uzbekistan. For SIC ICWC there were made reports of Dukhovny V.A. during the session on surface water, Dukhovny V.A., Sorokin A.G. and Ziganshina D.R. during the session on water planning and law as well as the report of Rysbekov Yu.Kh.

Dukhovny V.A. as a member of World Water Council Directory read the greeting of WWC President, Mr. Loic Fauchon, at the Congress opening, also Head of Federal Agency on Water Resources, R.Z. Khamitov, the President of Russian Water Supply Association Council, S.V. Khromenko also made a greeting speech. The Congress arrangements were divided into sections:

resources, quality, water use and protection;
monitoring over water sites;
preventing and liquidating emergency ecological situations related to water sites;
economics, law and management;
water supply;
water removal, waste water treatment and utilization;
water preparation for industry and power engineering;
pipeline system of utility infrastructure;
water and health;
methods for water quality control and analysis;
bottling;
energy conservation.

Big debates were held during the Congress almost in all sections about Water Code of the Russian Federation accepted just now. The major of speakers regarded this legislative document critically, thinking that it opened the way for loss of government water resources management and for over-privatization of water structures including reservoirs.

Several reports were devoted to Central Asia problems including perspectives of redistributing a part of Siberian river flows in Central Asia (the report of the academician of Russian Academy of Agriculture Science Kizyaev B.M.). This arrangement was marked as a very significant in future not only for Central Asia but for Russia itself from the point of view of involvement of its water capacity into more effective use and at the same time resolution of the

issue on redudant water diversion of siberian rivers from flooded territories of oil fields in Russia because of increased moisture in formation zone of siberian rivers in connection with climate fluctuation.

The Conference, organized by Ministry of Agriculture, the Russian Federation and devoted to land-reclamation development in the country and timed to the 40 anniversary of May Plenum, was held in the last Forum day. The former First Deputies Minister of USSR Water Sector Polad-zade P.A. and Aleksankin A.V., the Deputy of State Duma, Deputy Chairman of Committee on Finances, Sukhoy N.I., the Academician, Kizyaev B.M., the Director of Land-Reclamation Department, a member of Ministry Collegium, Gulyuk G.G. as well as SIC ICWC Director Dukhovny V.A. made speech at the Conference.

Speakers – specialists on water resources in Russia marked out the necessity of rehabilitating and developing that capacity of irrigated and dried lands which was in Russia earlier taking into account new economic and political conditions. They noted that during last years the attention to agriculture and land-reclamation was considerably increased and increase of agriculture and water resources financing in the country was evidence of it. At the present time the statute «Agriculture Development» is being prepared.

The Conference participants made the decision to organize the Union of water and land-reclamation specialists of the Russian Federation.

More than twenty participants of the Conference were awarded memorable medals in honor of centenary of the First Minister for Water Resources and Land-Reclamation in USSR E.E. Alekseevskiy. This medal was awarded to Dukhovny V.A. and Tashev R.Kh.

DAY OF WATER SECTOR WORKERS IN UKRAINE

SIC ICWC Director, prof. V.A. Dukhovny visited the Committee and met with the Committee Direction, Chairman - Vasiliy Andreevich Stashur, his Deputies - Nikolay Mikhaylovich Babich and Vitaliy Vladimirovich Lelevskiy by the invitation of the Chairman of State Committee on water sector of Ukraine.

The Direction of State Committee shared its successes and problems which were reflected at two attached interviews of Vasiliy Andreevich Stashuk to Government and Parliament newspaper.

«Special authorized State Committee on water sector in Ukraine implements activity on improving rational water resources use and conservation. Ukraine has water-reclamation complex of high capacity and a very developed river network. 63119 rivers and sources are flown on the country territory. North-Crimean canal is one of the largest in the composition of water sites in Europe. It was constructed in 1961-90 with the length 400 km and flow capacity 294 km3\s.

The main Kakhov canal has no analogues in Europe with flow capacity - 530 km3/s. It irrigates 326 thousand ha in two provinces of Ukraine. 6 Basin Water Resources Administrations are functioning in the republic.

Water resources state, their forming and quality depend undoubtedly on regime of their use. In this context special inter-departmental commissions have been organized under State Water Resources Administration composed of representatives of public bodies, water users and ecologists. Scientists and leading specialists of respective economics branches are invited for taking part in the meetings of these commissions.

Catastrophic floods for last years in Transcarpathia caused the necessity to create single flood control complex. State Water Resources Administration, based on generalizing world experience in resolving similar problems, implements consultations on joint actions with neighboring countries, which are united by Tisy river catchment. The practice proves that in

spite of significant achievements, problems on flood control could be resolved not only through engineering methods, since frequency of great floods is increasing as a result of anthropogenic load pickup on catchments as well as because of irregularity of water use regime.

Legislation enables water management organizations to control rational water resources use, protection and renewal, which are executed together with nature conservation bodies, representatives of Office of Public Prosecutor and State Tax Administrations.

Unfortunately, as results of surveys prove, there are mush violations of legislation on conservation.

During last years dimensions of floodplains have been significantly increased for suburban construction, gardening and truck farming. Constructions of different structures increased on a large scale on the river banks in neighborhoods of Kiev and other big cities. In order to prevent negative consequences of these violations, State Water Resources Administration developed methods on river protection and renewal. But none of the water management organizations, Committee or even Ministry can resolve river problems without wide public participation. Therefore propaganda of environment knowledge, environment education of population should become one of the priority objectives for government and public organizations. State Water Resources Administration has supported and takes part permanently in Annual Ukraine action «For clear sources». All-Ukraine action «Green sprout of future» has been developed by the President Decree of 1 April 2005, active participants of which are the whole staff of 35 thousand persons as well as millions of people united by the idea to improve neighborhoods that is the most important condition of Ukraine rebirth. They improve water sources, plant forests and herbage on rivers and ponds' banks, establish order in cities and villages.

However water-environment situation in Ukraine remains difficult enough and requires complex resolution at qualitatively new level. It is especially marked out the necessity to create IWRM system, which assists in improving legal framework in Ukraine. Now State Water Resources Administration works on improving water legislation, creating methodical bases for basin system of water resources management. In 2006 Supreme Soviet of Ukraine accepted draft Act of Ukraine on changing «Water Code of Ukraine» in its first reading.

The principal position of the Committee is the position that basin management system development should be implemented using maximum and widening significantly functions of water management organizations. State Water Resources Administration specialists are sure that only such approach is the most perspective one and can serve as a basis for state water resources system. International public organization «Global Water Partnership» has supported the Committee aspirations in this direction.

Ukraine has ratified 22 of 23 international environment conventions and agreements. All of them have force of national laws and meet legal environment legislation of Ukraine. According to provisions of International Conventions and within National Water Legislation, bilateral water cooperation is being implemented at the level of inter-state agreements on joint transboundary waterways and international lakes use and protection. Ukraine has signed such agreements with the Russian Federation, the Slovak Republic, the Republic of Moldova, the Republic of Poland, Romania, Hungary and Byelorussia.

The projects on water resources management and flood control in Dnepr, Dniestr, Danube, Tisa, Western Bug and Northern Donts basins are being developed and improved under the financial support of EU as well as with assistance of neighboring countries in Europe. In these directions the Committee cooperates actively with UN UNO, International Commission on Danube protection, the Swedish Agency on International Development, the Swiss Confederacy and others countries. Such cooperation speeds up resolving water problems and assists really in rapprochement of Ukraine and EU countries policy. Harmonization between Ukraine and EU legislations is one of the priorities of Ukraine environmental policy.

Recently State Direction pays a significant attention to supporting and developing water

complex. Parliamentary hearings of water complex problems of current importance were held, based on which the decree of Supreme Soviet «On recommendations of parliamentary hearings, problems of current importance, irrigation, underflooding and floods in Ukraine» was adopted. The President Decree on «Measures on developing irrigated agriculture in Ukraine» has been signed in March this year. The Government is planning to submit a number of draft legislations, directed at renewing effective water and land-reclamation complex functioning to the Verkhovna Rada for consideration in order to enforce such laws.

Workers of water branch received welcome from the President and the Prime-Minister of Ukraine as well as the Head of the Verkhovna Rada.

The agreement on exchange of information and delegations was achieved between BWO «Amudarya» and BWO «Syrdarya» as well as between two Basin Water Administrations of Ukraine.

THE MEETING OF ADB MISSION ON EVALUATION OF THE NATIONAL SUPPORT PROGRAM

According to schedule of meetings of ADB Mission on evaluation of the national support program, the negotiations were held on 24 January 2006 in Ministry for Agriculture and Water Resources of the Republic of Uzbekistan with representatives of the above mentioned mission at the head of Mr. Bruce Murray, the Director of Department on operations' evaluation.

A. Dzhuraev – the First Deputy Minister for Agriculture and Water Resources, R. Ibragimov – Chief of Administration on attraction of foreign investments of Ministry and A. Fayzullaev – Director of the Agency on restructurization of agricultural enterprises under Ministry for Agriculture and Water Resources of the Republic of Uzbekistan took part in negotiations from the direction of Ministry.

A. Dzhuraev acquainted participants briefly with progress of economical reforms in agriculture in the Republic. In particular it was specially marked out that intensive course was made in the Republic for developing farms and at the present time more than 125 thousand of farms were functioning, the Decree and the Enactment regarding measures on deepening economic reforms in vegetable-growing and wine-growing of the President of the Republic of Uzbekistan were issued. A special program on developing cattle-breeding up to 2010 is being worked out.

At the present time 3 projects are being implemented in Ministry in the area of ABD: «Support of infrastructure development as well as restructured farms in Ak-Altyn district, Syrdarya province», «Improvement of grain-crops productivity» and «Reconstruction of pumping stations along Amu-Zang canal». All activities are being implemented according to Work Schedules. Execution of works regarding the above mentioned projects are directed at developing material and technical basis for farms, increasing their profitability, increasing incomes of rural population. It should be specially marked out that the factor of successful project implementation is that khokims of districts, non-involved into the projects, attempt to use their districts as pilot ones during realization of new projects.

Mr. B. Murray expressed his satisfaction regarding successful joint work within the above mentioned projects and informed that the objective of given mission was to assess activities of implemented projects on assisting in economics development in Uzbekistan. Mr. B. Murray showed interest in Ministry's proposals and wishes on improving ADB activity in rendering services and developing the further cooperation.

A. Dzhuraev has informed that at the present time one of the priority directions for cooperation are the issues on giving credits for farmers as well as taking into account decisions of the Government of the Republic of Uzbekistan made recently, the issues on developing cattle-breeding, vegetable-growing and wine-growing. In the field of cattle-farming a special attention should be given to developing livestock breeding, improving livestock yield and provision animals with fodder. In the field of vegetable-growing and wine-growing attention should be paid to issues on processing agricultural production, its storing and sale for export.

Representatives of ADB Mission paid attention to the fact that assistance in the field of cattle-breeding was impossible because of lack of highly qualified specialist on cattle-breeding. Regarding assistance in crediting in the country ADB Mission proposed to consider complex approach in resolving this issue, i.e. resolving the issues together with other components of projects.

At the end of negotiations both parties had especially marked out that at the present time a very good partner relations were established between Ministry for Agriculture and Water Resources of the Republic of Uzbekistan and Representative Office of ADB in Uzbekistan and expressed interest in further fruitful cooperation.

OPENING OF TRAINING CENTRE UNDER KAZAKH BRANCH OF SIC ICWC

Training Center was opened solemnly under Kazakh Branch of SIC ICWC on 30 January 2006 in Almaty. TC Opening became possible with financial support of USAID. Kazakh National Agrarian University (KazNAU) has given a room for permanent TC placing within the university. It provides TC with information given continuously from the teaching staff as well as the students. So the target audience of TC will be consisted not only of the specialists on water resources but students of higher courses of KazNAU which are studying the specialties in the field of water resources management and use.

Holding the first workshop on the theme: «Cooperation of the Republic of Kazakhstan with neighboring countries in the field of transboundary water resources use and protection: current state and the ways of development» was timed to TC opening in Almaty.

Participants were greeted by Chairman, the Committee on Water Resources of the Republic of Kazakhstan (RK), Ryabtsev A.D., Rector, Kaz NAU, Espolov T.I., Director, Kazakh Directorate, Executive Committee, IFAS, Nurushev A.N., USAID Representative David Besh and Director, Kazakh Branch, SIC ICWC, Prof. Kipshakbaev N.K.

Heads of all basin water administrations of the Republic of Kazakhstan, Kaz NAU Lecturers and Representatives of Kazhydroprojects and the Institute of Geography of the Republic of Kazakhstan took part in workshop activity.

The theme of the first workshop was chosen jointly with the Committee on Water Resources of the Republic of Kazakhstan in order to discuss problems and perspectives on RK Water Resources development, analyze executed works and generalize positive experience of RK and advanced countries in water resources.

General reports on transboundary rivers' problems were presented during the first workshop day. Ryabtsev A.D. expounded the main problems of Syrdarya and Chu-Talas rivers basins, key directions of cooperation on water issues with Central Asia, Russia and China countries in the report «Existing experience of transboundary water resources management». The reporter presented results on Project Phase I «Regulation of Syrdarya river bed and North Aral Sea» including finalization of North Aral Sea dam construction and filling up Small Sea up to the point 41.3; also he widely covered measures which were planned in Project Phase II and in addition provided for lifting North Aral Sea level up to 46.0; construction of hydroelectric power station which would be a part of Aklak hydro structure with annual power production up to 23 megawatt, rehabilitation and construction of dams, Syrdarya river channel straightening, etc. Ryabtsev A.D. marked out that modern water resources management was impossible without al-round IWRM introduction at transboundary level as well as at national one. In addition, activity should be carried out in irrigated lands with lower level, which is planned to be developed at the present time by RK Committee on Water Resources with support of European Community which grants 1 million euro to Kazakhstan for establishing and maintaining cooperatives of water users.

«Problems of international waterways and methods for resolving them» were given in the report of prof. Dukhovny V.A.

«Perspectives of regulating water resources of Syrdarya river basin on the territory of the Republic of Kazakhstan» were expounded by the Director, the Institute «Kazhyprovodkhoz», Dmitriev L.N. In particular designs on construction of Koksaray controlling regulator were presented for discussion. The report aroused a hot polemics on social, economic ecological and political aspects of construction. Participants came to the conclusion that all possible alternatives should be investigated before construction beginning.

Problems on water resources management in river basins of Kazakhstan were investigated

in details during the following workshops based on the reports presented by heads of respective basin water administrations (BWA). It is significant that the whole BWA coverage, except Nura-Sarysusky water basin, is districts bordering with other countries. So BWAs face with issues on transboundary water resources management in day-to-day activity and they are the first who feel the weight of all unsolved issues.

Problems on water resources management in Syrdarya river basin, which have been covered in the reports of Ryabtsev A.D., Dukhovny V.A., Dmitriev L.N., Sarsenbaeva G.B., Karlykhanova A.K., raise the most anxiety.

As a whole the reporters marked out the positive sides of cooperation with the Russian Federation with which the agreement on transboundary water resources was concluded in 1992. Three separate protocols on joint transboundary water use and conservation and coordination of water activity in Ural, Tobol and Ishim rivers basins were approved to the above agreement. The activity is implemented within regular meetings of bilateral commission.

The relationship with China is being established – bilateral agreement on water resources has been concluded in 2001 which has become the first one signed by China with contiguous government. Undoubtedly unsolved issues are remained, but Kazakhstan has succeeded in signing an agreement, coming to the agreement on exchanging water quality indices on 10 indicators. Bilateral commission holds its meetings regularly.

In spite of Kazakhstan is a participant of multilateral and bilateral agreements in the field of water resources use, problem on national implementation is remained, i.e. accepted responsibilities should have real implementation mechanisms at municipal level.

Water quality issues raise an anxiety in all basins. Water quality problem state in transboundary rivers was presented in the report of Esekin B.K., besides, all participants covered the given issue in their presentations. In particular, it was marked out that RK had no technical potentials to determine water quality on all indices that made difficulties for joint water use in transboundary basins. For example, Russia is given information regarding only 3 indices and China is provided with information regarding 10 indices that is insufficient.

In this context Ryabtsev A.D. marked out that as a whole ecological problems were very important, RK had sufficient normative base, the problem was in implementation and lack of respective powers of Committee for resolving such issues from the point of view of water resources conservation.

Absence of clear national water strategy of Kazakhstan, permanent lack of financial sources for paying to ICWC executive bodies, lack of attention to water supply issues, lack of gauging stations at rivers were raised among other issues during the discussion.

IMPROVEMENT OF SHARED WATER RESOURCES MANAGEMENT IN CENTRAL ASIA

Work Meeting for discussing regional water policy took place in Tashkent, 14-15 February 2006, under the Project of the Asian Development Bank (ADB) «Improvement of Shared Water Resources Management in Central Asia».

The participants of Work Meeting - the members of the national inter-departmental groups and the regional working group – have agreed Work Plan on the Project approved by ADB and assented to the need on regulating order of payment within the Working Group (WG) between WG members.

Revised national reports on «Analysis of the Efficiency of the acting agreements in terms of national interests» were submitted by NWG of Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan. The Tajik NWG is to submit revised national report and materials related to the results on implementation of measures, stated in the Protocol of the Meeting under the Project of 5-7 December 2005, up to 1 March 2006.

It has been agreed that RWG will take into account the comments on «The generalizing report of the Regional Working Group» made by NWR of Kyrgyzstan.

Unsatisfactory inventory activities were marked out, the results of which were presented only by NWR of Kyrgyzstan and Turkmenistan. Only two national projects were mentioned in the report on inventory of NWR of Kyrgyzstan. The information on three projects to the amount of 4,8 million dollars per year was given in the report of NWR of Turkmenistan, but there were no data on contribution of Turkmenistan to BWO maintenance, costs of hydrometeorological services, costs on information exchange, participation in ICWC and organization of meetings and assemblies.

As a result of issues on what information should be included into inventory, arisen at NWG, in particular, if data on irrigation measures in upper reaches, impacting on water quality, should be covered, SIC ICWC was entrusted to submit the information on inventory preparation (what costs and activities to be taken into account, for what period, etc.) up to the end of February 2006.

NWG agreed to complete inventory activities up to 15 March 2006.

The participants considered the preliminary version of the glossary and received remarks on it from NWGs of Kyrgyzstan, Turkmenistan, BWO “Amudarya” and BWO “Syrdarya”. It was noted that the prepared glossary is useful in water resources use and management in the region. At the same time, further work is needed to revise the brief version of the glossary for including into draft agreements, in particular into a draft Agreement on Water and Energy Resources Use in the Syrdarya River Basin.

A draft Agreement on “Formation and Functioning of National, Basin and Regional Databases on Integrated Water Resources Use and Protection in the Aral Sea basin” was discussed, and remarks and additions of NWGs of Kyrgyzstan, Uzbekistan and the participants of the work meeting were inserted.

Relevant additions and amendments were introduced into the draft Agreement on Water and Energy Resources Use in the Syrdarya River Basin based on a consensus between the participants of the work meeting. Accept the proposal of the Kyrgyz NWG to present the data on electric power deficit per years of various water availability during a week.

It has been made the decision to request the NWG of Tajikistan to submit remarks on the draft Agreement on Syrdarya (version for February 2006) up to 28 February 2006. A revised text of the draft Agreement (with comments of the Tajik NWG) should be submitted for consideration at the ordinary ICWC meeting in Ashkhabad, 30-31 March 2006. In this context they should be sent to ICWC members on 1March 2006.

BWO “Amudarya” prepared draft review on the Amudarya River Basin and structure of the

agreement on the basin. Request the members of the NWGs and RWG to submit their suggestions and additions with regard to these documents by 10 March 2006 for discussing this issue at the round table in Ashkhabad.

Taking into account the budget of round-table, held in Ashkhabad, a circle of participants should be identified: in two members of NWG and all members of RWG.

THE PRINCIPAL ORGANIZATIONAL, LEGAL AND FINANCIAL AND ECONOMIC MEASURES FOR SUSTAINABLE WUA FUNCTIONING. WATER USE FOR WUA

WUA activity on «IWRM–Fergana» Project held workshops on the theme «The principal organizational, legal and financial and economic measures for sustainable WUA functioning. Water use for WUA» from 27 February to 6 March along Khodzhabakirgan and South Fergana Canals where new WUAs were established.

Workshops were held:

from 27 to 28 February – in Proletarsk city, Sogd province, where 39 local representatives of WUAs and WOs were presented;

from 1 to 2 March – in TC in Fergana, where 69 local representatives of WUAs and WOs were presented;

from 3 to 4 March – in TC in Andijan, where 50 local representatives of WUAs and WOs were presented;

from 5 to 6 March – in TC in Osh, where 32 local representatives of WUAs and WOs and TC lecturers were presented.

WUA activity Leader under «IWRM–Fergana» Project, the candidate of economic science, Pinkhasov M.A. made the report «Planning and implementation of measures during WUAs' establishing and functioning».

In particular, in the report there were covered:

reforms carried out in agrarian economics sector of Central Asia countries and the necessity for establishing WUAs during disintegration of former large-scale farms – state farms, collective farms, shirkat and other farms;

problems resolved with the help of WUAs;

principles of WUAs organization;

WUA activity objects;

WUAs financial sources;

Initiators of WUAs establishing;

Implementation of social mobilization of water users during WUAs establishment including its stepwise phases;

Organizational measures on WUAs establishing and financing;

Approximate institutional structure of WUAs;

Development of measures in WUAs;

Scheme of mutual responsibilities of WUAs and water users;

Financial and economic measures during WUAs establishing and functioning;

WUA budget forming;

Making up WUAs business plan;

Implementing technical and economic analysis of WUA activity and revealing reserves; developing measures on improving WUA technical and economic measures.

Reasons of WUA establishment were noted in the report and according to which principle it was established.

WUA is created with a status of nongovernmental, noncommercial organization of water users.

As the reporter marked out, as a rule WUA creation was being implemented with the help of initiative group, the objectives of which included: determining WUA territory, carrying out social mobilization among water users, preparing constituent documents on created WUA, preparing inventory sheet of irrigation funds, transferred to WUA, proposing approximate WUA institutional structure, preparing general (constituent) assembly of WUA members.

After WUA establishment, business plan, water use plan accounting water requirement of every water user, plan of repair and reconstruction works for WUA irrigation and drainage network are being made up and monitoring over WUA activity is being carried out, water account is being organized with water organizations as well as water users.

Further the reporter noted that the most important conditions for sustainable WUA functioning were:

Determining rate and criteria for constituent fee of WUA members and co-constitutor;

Availability of legal basis on WUA establishment and functioning;

Exceeding of incomes of WUA budget over expenses or their equality;

Availability of WUA production basis;

Participation of professional specialists: hydrotechnicians, specialists in land-reclamation and economists in WUA activity;

Installing water accounting facilities in onfarm network for every water user – WUA member;

Organization of sustainable effective cooperation between water organization and WUA;

Equitably fixed tariff, approved by general assembly of WUA members;

Availability of optimal institutional structure of WUA;

Availability of stimulations for WUA workers for implementation of water availability indices by them, uniform water distribution between water users, providing favorable reclamation background, and increasing crop yield;

External assistance (of Ministry for Agriculture and Water Resources and its structures, local administration) for involving local resources, providing with normative-methodical documentation, financial and technical resources, training WUA staff and water users.

In order to reveal «reserves» in WUA activity the reporter suggested using system of technical and economic indices of WUA activity proposed by SIC ICWC in «IWRM Guideline at WUA level».

Project consultant on hydrometry, the candidate of technical science R.R. Masumov made the report «Water account issues during integrated water resources management» who covered the following issues:

The role of water account in WUA activity;

Objectives of irrigation water account service;

Types of gauging stations in WUA irrigation and drainage network;

Criteria on selecting types of flow gauges depending on slope, flow regime, availability of sediments and size of measured water discharge range;

Water account state and implemented activities in pilot WUAs on «IWRM-Fergana» Project;

The necessity of carrying out gauging stations attestation and periodicity of checking them, making up technical passport of gauging station.

The reporter acquainted listeners from other WUAs with available visual aids, technical documentation on water account and various water measuring facilities and proposed concrete recommendations on installing various types of water measuring facilities and water accounting in WUA canals as well as water withdrawing points of water users.

WUA activity Leader, the candidate of economic science, Pinkhasov M.A. made the report «Financial and economic aspects of WUA activity».

The reporter acquainted listeners with WUA budgeting, the essence and order of making up business plan for WUA, where it should be taken into account:

System of technical and economic indices of WUA;

The main production funds which were on WUA balance;

The main production funds functioning in WUA but were and operated in WO;

Fund of payment of WUA workers labor according to staff;

Planning sum of award fees to WUA workers;

Assignments for social insurance;

Production costs concerned with carrying out repair and reconstruction works, cleaning irrigation and drainage network;

Costs for materials and combusting-lubricating materials;

Administrative and managerial expenses.

The reporter dwelled on system of technical and economic indices of WUA which was proposed by him and would allow revealing existing «reserves» in activity analyzed by WUA.

WUA activity Assistant A.A. Alimdzhanov made the report on «Water distribution for WUA».

He marked out that as a result of carried out reforms in Uzbekistan, unprofitable and ineffective large-scale farms (collective farms and state farms) were disbanded and a great number of water users with small irrigated areas were established.

Dissolution of collective farms and state farms brought to breaking-up of irrigation and reclamation services, the function of which was being implemented at the present time by Water Users Associations (WUAs).

Under such conditions the main objectives of WUA regarding water resources use are:

Providing rational and economical water resources use for WUA;

Decreasing unproductive water discharges in WUA irrigation network;

Providing guaranteed and equitable water distribution between water users;

Providing an easy access to information on water allocation between WUA water users.

At the present time water distribution in large-scale and created WUAs is based on planned water use indices made up 15–20 years ago or made up at secondary canal level.

Existing water distribution based on the above mentioned principles is ineffective since cropping pattern has been changed, and according to water use plan made up at secondary canal level it is impossible to determine whom, when and what quantity water should be supplied.

Under the new conditions WUA should make up water use plan taking into account water requirement of every water user independently of location and size of his irrigated area.

Required materials for making up water use plan are:

- linear scheme of interfarm irrigation network;
- crop location in every water users inlet;
- crop irrigation schedule in hydromodule zones;
- technical characteristics and interfarm irrigation network efficiency.

Under the conditions of small farms' functioning water distribution by direct current to

every farm with low average decade discharges according to water use plan is ineffective (1 l/s for 1 ha, 3 l/s for 5 ha).

Under the new conditions water use plan has lost its water distributing function leaving only necessary volume of consumed water.

In order to improve water distribution effectiveness between small economic subjects it should be transferred from decade water distribution to daily water distribution.

The reporter dwelled on mechanism of transference from decade water distribution to daily one and making up daily water supply schedules to water users. This principle takes into account interests of all parties – water users, WUA and water organization providing water distribution transparency and publicity.

Further the reporter dwelled on advantages of introducing water distribution method according to water users applications, which

- involved all water users into water distribution process and raised water users confidence to WUA;
- allowed to carry out irrigations in time, when every water user would be informed about time and volume of water supply by WUA worker;
- did not allow prolonged irrigations;
- gave a possibility for water users to plan and implement agrotechnical measures in time during crop growing;
- increased efficiency of secondary and following canals;
- had a possibility to integrate water distribution process from canal to the field.

WUA activity Leader under «IWRM–Fergana» Project Pinkhasov M.A. made the report «Methods for resolving water disputes».

In his report he dwelled on nature and reasons of water conflicts and disputes origin. In particular he marked out that conflicts and disputes between water users inside WUA, between WUA and water users, between WUA and WO could be aroused by: non-executing terms of the agreement on water supply according to time and volume and rendering other services including services on land reclamation, executed by WUA, between water users and WUA; non-executing terms of the agreement between WO and WUA; breaching established order of water receiving by WUA worker (unauthorized water withdraw, unauthorized increase of water withdrawing points, regulation of waterworks, making temporary dams in canals, pumping facilities, drilling well for water, etc.), deterioration of land reclamation state aroused by inactivity or insufficient measures concerned with reclamation systems operation, violation of WUA Statute, etc.

Disputes and conflicts between WUA members and WUA, between WUA and WO can be investigated according to acting normative and legal acts in WUA Arbitrage Board, Arbitrage Board of Canal Water Committee, in Courts of Aksakals (organized under khokimiyats) and in WUA Regulation Authority under Ministry for Agriculture and Water Resources (for the time present this authority is established under Ministry for Agriculture and Water Resources of Kyrgyz Republic).

Further the reporter dwelled on predictive methods on preventing water conflicts and disputes.

He dwelled on recommended mechanisms on resolving disputes and conflicts and marked out that when using them it could be escaped a trial and they would provide a quick consideration, not carry a burden of great financial charges which had a place when going to juridical bodies.

WUA activity Assistant A.A. Alimdzhanov made the report «Involvement of water users into water use and water distribution planning processes for WUA» where he marked out that as a result of reforms carried out in agriculture economics sector of Central Asia countries, it was

increased a number of water users with small irrigated areas which created problems on organizing water use and servicing water users.

In order to resolve the above mentioned problems in WUA it should be:

regarding organizing water use in WUA – to transfer from decade water use to daily one and to water use and water distribution planning processes for WUA – to involve water users themselves.

The reporter marked out that when involving water users into water use and water distribution planning processes it should be taken into account relationship of water users and WUAs, i.e. concluding agreements on water supply to water user directly with WUAs or through leaders of water users groups (WUG).

IMPROVEMENT OF WATER RESOURCES MANAGEMENT AT WUA LEVEL

Workshops on the theme «Improvement of water resources management at WUA level» were held from 3 to 11 April 2006 in Training Centers of Tajikistan, Uzbekistan and Kyrgyzstan within «IWRM–Fergana» Project.

WUA activity Leader under «IWRM–Fergana» Project Pinkhasov M.A. held workshop in places.

WUA activity Leader under «IWRM–Fergana» Project Pinkhasov M.A. made the report «Providing WUA activity sustainability» during the workshop.

In particular conditions, under which WUA activity sustainability is being achieved, have been expounded:

- availability of legal basis on WUA creation and functioning;
- availability of WUA production basis;
- participation of professional specialists – hydrotechnicians, specialists on land reclamation, economists, etc. – in WUA activity;
- installation of water accounting facilities in onfarm network for every water user or water users groups;
- exceeding of profitable budget part over expenses;
- organization of sustainable operational activity between WO and WUA;
- availability of objectively fixed tariffs for water services of WUA;
- availability of optimal institutional structure of WUA;
- availability of stimulations for WUA workers for execution of the main production indices by them;

External assistance (Ministry for Agriculture and Water Resources and other structures).

Further the reporter dwelled on recommended measures on implementing favorable legislation of the Republics of Tajikistan, Uzbekistan and Kyrgyzstan regarding existing problems in organized WUAs in particular:

- government support was not provided for creating WUA material and technical

basis and rehabilitating onfarm irrigation and drainage systems in all countries of Fergana Valley beside Kyrgyzstan;

- system of stimulating water conservation was absent;
- there was no an institute of «market of saved water resources»;
- issues on granting long-term and short-term lax credits to WUA were not resolved;
- homestead lands of water users were not consolidated into association of homestead lands;
- special departments on supporting WUA were not created in water organizations' structures (WO) and accordingly their functions and financing were not determined.

The important aspect of WUA activity sustainability is effective water resources use achieved under operational cooperation of WO with WUA and WUA with water users. In this context it should be:

- to carry out water supply to WUA according to water users applications;
- to make up schedule of water supply to water users according to days in water discharges and flows;
- to provide water users with transparent information on water supply issues.

Further the reporter marked out that the most important condition for WUA activity sustainability was staff awareness on economic state of WUA, analysis of which he proposed to make according to technical and economical indices given in «Guideline on IWRM at WUA level».

In conclusion the reporter dwelled on the necessity of resolving tasks which allowed improving WUA activity effectiveness.

Project consultant on hydrometry Masumov R.R. made the report «Organizing water account of all types of water for WUA».

In his report he marked out that in order to irrigate crops in WUA it was used water of:

- resources supplied from irrigation canals;
- natural resources available on WUA territory (springs, sais);
- artesian wells and wells of vertical drainage;
- as waste water supplied from upstream lands;
- collector and drainage network.

The reporter paid much attention to the role of water account when making up and controlling over execution of water use plan and observance of crop irrigation regime.

He separately dwelled on water account issues for water users groups (WUG). He recommended standard water measuring facilities (water weirs, flumes, thresholds, etc.) as technological facilities for water accounting in WUG, with which WUG should be equipped.

The reporter paid a special attention to issues on water measuring facilities construction, operation and certificating. Information on water accounting from artesian wells and wells of vertical drainage with the help of ultrasonic, induction, electromagnetic and proportioning flowmeters was given in the report. He recommended to measure well production in canal outlet with the help of water weirs and SANIIRI

flumes as alternatives to those facilities.

In order to account water in drainage outlet with free outflow in collectors, the description of water measuring facility of SANIIRI «elbow – orifice» was given. According to survey results (March 2006) of irrigation canal «Ak-Kalya» (WUA «Zarafshan» in Tajikistan), design scheme on using and accounting waste water was demonstrated to workshop participants.

Under the conditions of great water discharges in collectors the reporter recommended constructions of fixed channel of asymmetric section and triple water measuring orifices.

The reporter dwelled on measuring flow speed and acquainted listeners with available visual aids and guidelines developed in SIC ICWC.

Activity Assistant Alimdzhanov A. made two reports: «Principles on making up water use plan at WUA level» and «Necessity of transference from decade water use to daily one».

He marked out that WUA specialists were confronted with tasks on providing:

- rational and economical water resources use by water users in WUA;
- guaranteed and equitable water distribution between water users according to established normative documents (crop irrigation schedule);
- an easy access to information on water allocation between water users;
- decreasing nonproductive water loss in WUA irrigation network.

The reporter noted that WUA Direction could execute set tasks under special conditions. In his presentation he dwelled on the main principles on making up decade and daily water use plan. Workshop participants made sure in practice that decade water use plan became ineffective as a result of decreasing sizes of irrigated lands of water users and water supply by direct current with low average decade discharges (1 l/s for 1 ha, 3 l/s for 5 ha) to water users inlets.

Under the new conditions decade water use plan lost its water distributing function leaving only quantitative water requirement of water users.

In order to organize effective water distribution for WUA and implement set tasks by water users the reporter noted that it should be to transfer from decade water use planning to daily one and water users themselves should be involved into water use planning and water distribution processes in WUA.

The reporter dwelled on the order of organizing daily water use planning for WUA in the report on the theme «Necessity of transference from decade water use to daily one».

He marked out that daily water use planning for WUA was being carried out in February and March while actual days of water supply to water users were from April to October when water use conditions could be changed. Therefore reception of applications for water from water users should be organized for specifying the order of water supply to water users. Application for water from water users proves readiness of water users to carry out qualitative crop irrigation.

Adjusted daily water use plan is the principal document of water users which they are followed for observance of the order, discipline and transparence during water distribution.

The reporter dwelled on the issue of organizing water users groups (WUG) in

WUA. He informed that WUG were created where a great number of water users received water from one canal outlet and it participated as one water user and dwelled on criteria, rights and features of WUG.

The reporter dwelled on advantages of introducing water distribution methods according to water users applications.

IMPROVEMENT OF SHARED WATER RESOURCES MANAGEMENT IN CENTRAL ASIA[2]

Leaders and representatives of the national working groups (NWGs) and all representatives of the regional working group (RWG) (except for "Energy" Center) took part in the roundtable to discuss the regional water policy under the ADB RETA 6163 "Improvement of Shared Water Esources Management in Central Asia" on 30 March – 2 April 2006 in Ashkhabad.

Regarding the discussed issues the following decisions have been made:

1. Take into account that the Tajik Government has confirmed a NWG consisting of 9 members under the leadership of Deputy Minister of Land Reclamation and Water Resources of Tajikistan I. Eshmirzoyev.

2. Mark out that the Tajik NWG has presented a country report on analysis of the efficiency of the agreements in force from the perspective of Tajik interests. Thus, all the NWGs presented their reports, but did not certify their approval by all the NWG members in protocols. Charge the RWG members to generalize their reports up to 1 May 2006. Request NWG Leaders to register the approval of reports in the protocols of the working groups.

3. The NWGs of Kazakhstan, Tajikistan and Turkmenistan presented reports on inventory of activities carried out by each country for interstate cooperation. The report of the Kazakh NWG can be taken as a prototype, adding a scope of activities being done in water sector as a contribution of the countries to the IFAS.

The report of the Kyrgyz Republic on inventory included all costs incurred by the Water department for southern provinces. It was suggested to exclude operational costs for maintenance of the main and inter-farm network of irrigation systems from them. Request the Uzbek NWG to submit the results of inventory. Request NWG members to complete this work up to 1 May 2006.

4. Amendments were introduced into the draft Agreement on "Formation and Functioning of National, Basin and Regional Databases on Integrated Water Resources Use and Protection in the Aral Sea Basin", based on remarks of the Tajik NWG. There were no other remarks. At the ICWC meeting, it was decided to send this draft to the EC IFAS for agreeing with the Governments of the founder states.

5. The draft Agreement on "Water and Power Resources Use in the Syrdarya River Basin" (version № 2 February 2006) was discussed with account of remarks from Tajikistan and Kyrgyzstan. The parties did not reach a consensus under some articles of the draft Agreement. It is expected to hold in Tashkent in April 2006 a meeting of representatives from the NWGs of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan to link water and

[2] The round table under the ADB RETA 6163

energy balances, in which two representatives from each country (representatives of water and energy sectors) will take part.

6. BWO "Amudarya" prepared a report on problems in the Amudarya river basin, to which the Turkmen NWG made remarks. Request the NWGs of the Kyrgyzstan, Tajikistan and Uzbekistan to prepare their remarks, and the RWG Amudarya to generalize them by 1 May 2006.

7. The version presented by the Tajik NWG was taken as a basis for the first version of the draft Agreement on "Water and Power Resources Use in the Amudarya River Basin". The text revised based on the results of discussions will be sent to NWG and RWG members up to 10 April 2006.

8. In accordance with the discussion at the ICWC meeting, it was decided to exclude the term 'transboundary' concerning waters, rivers, basins, water resources, bodies, sources from all the draft Agreements, replacing it by term 'interstate'.

9. The prepared glossary text should be taken into account, calling it as "Reference book on terminology". To complete its preparation, request the NWGs of Kazakhstan, Tajikistan and Uzbekistan to submit their remarks to the revised version up to 1 May 2006. The agreed version will be used as a reference knowledge base. The preparation of terms for specific draft interstate agreements will be carried out in a working order. The developed terminology to the Agreement on Water and Power Resources Use in the Syrdarya River Basin was transmitted to all the NWGs. Request the NWGs to submit their remarks and suggestions by 15 May 2006.

10. Based on the decision of the ICWC, the CMC ICWC should be included in the RWG membership as an observer.

RIVERTWIN MINUTES OF THE 5 TH MEETING OF THE MANAGEMENT BOARD

April 10, 2006 at Tashkent (Uzbekistan)

Participants:

Prof. Dr. Karl Stahr
Prof. Dr. Victor Dukhovny
Prof. Dr. Giselher Kaule
Prof. Dr. Jacques Ganoulis
Oskar Wallgren

Dr. Frank-Michael Lange (Protocol)
Dr. Hans-Georg Schwarz von Raumer

Dr. Thomas Gaiser (Protocol)

The meeting was opened with a thanks to Prof. Dukhovny for the invitation of the Management Board to Tashkent and the organisation of the preceeeding workshop. Ben Sonneveld and Mouinou Igue apologized for their absence. The minutes of the MB meeting on October 7, 2005 at Cotonou was confirmed without changes.

1. Status of the Project activities in the three river basins

Frank Michael Lange reported briefly that all submodels are operational in the Neckar basin. The MOSDEW website is established and continously filled with the results of the scenario runs. The integration of some scenario runs in the Neckar basin had experienced a further delay, due to the fact WEAP results for one scenario had to be revised which caused a recalculation of several secnario runs be MONERIS and QUAL2K. Results of an additional intervention scenario by ACRE has been forwarded to SLISYS. Several dissemination activities are ongoing. The final stakeholder workshop in cooperation with the State Ministry of Environment is scheduled on July 18, 2006 at Hohenheim.

IN the Oume basin, data collection is completed. However, surface water quality monitoring and investigation of water demand continous as recommended. Model applications are being set up and are in the phase of calibration. A workshop on scenario development and subsequent training in WEAP is planned on May 10 to 15, 2006 at Cotonou. Mouinou Igue proposed that the final stakeholder workshop should be helt on November 7 at Parakou.

The status of the RIVERTWIN activities in the Chirchik basin had been presented in the preceding two days by a series of presentations by all executors in Uzbekistan. The collection of data has been completed, except for land use data (satellite images had been acquired recently). The land reform in Uzbekistan which started in 2005 will caused strong changes in land use within the next years. Manuals for model application should be revised. New projects proposals on IWRM in cooperation with GWP CACENA are planned. Additional training in the application of CASIMIR (May 2006 at Tashkent), QUAL2K and MONERIS after making agreement between AUTH and SIC-ICWC are

scheduled. The funding of the training will be arranged by AUTH and SIC-ICWC.

The activity report of the first reporting period had been translated into Russian and published by ICWC-SIC. Assitance in fund raising (NATO, EC-SSA, INTAS) for an international dissemination work is requested by Victor Dukhovny. Finally, the scenario approaches in the three river basins need some slight harmonization with respect to assumptions concerning the development of the Cotton market. A memorandum was established to write up a joint on the scenario approaches publication (Thomas Gaiser, Andreas Printz, Yusup Rysbekov and Valery Prihodky).

The status of the model integration in the Neckar and Oueme basin was presented by Hans-Georg Schwarz von Raumer.

2. Workpackage progress, deliverables and budget

Workpackage progress has been covered by the preceeding presentations. All twelve deliverables that were due within the second reporting period, where submitted to the Commission. Four deliverables that were due in the last month of the reporting period are delayed by maximum 3 months. The project has spent 91% of the prefinancing amount of the first two reporting periods. Some contractors have spent less than requested in these periods and will receive proportionally less as prefinancing for the last reporting period. In order to avoid that resources are lost, the Management Board decides, that all contractors will have to submit a preliminary financial statement on 1 of december 2006. Based on the statements, the Management Board will decide on December 15, 2006 about the final budget distribution.

3. Midterm Review Meeting - Recommendations of the reviewers

The recommendations made by the reviewers have been fulfilled in a very satisfactory way. The Management Borad has been particularly impressed by the progess of the workpackages in the Chirchik basin. The training schedule in the Chirchik basin has been defined and approved as follows:
April 2006 – SLISYS training and implementation (reponsable. T. Gaiser)
May 2006 – Casimir training (M. Schneider)
September 2006 – MODFLOW training (R. Barthel)
Time is not fixed – Training in application and adaptation of QUAL2K and MONERIS

4. Project time schedule (Conferences, Reporting etc.)

4.1. Final public presentations in the basins:

July 18, 2006 at Stuttgart – Neckar basin (Organisation: Lange)

September 2006 at Tashkent – Chirchik basin (Organisation: Dukhovny and Rysbekov)

November 8, 2006 at Parakou – Oueme basin (Organisation: Adisso and Igue)

Final scientific conference: December 13-15 at Stuttgart-Hohenheim castle.

Preliminary title: Integrated River Basin Management in contrasting climate zones

Each contractor should give one presentation plus 1 poster with key results.

Coordinator: Karl Stahr

Scientific committee: Oskar Wallgren, Victor Dukhovny, Jacques Ganoulis, Ben

Sonneveld

Organising Committee: Thomas Gaiser, Roland Barthel/Jens Götzinger, Hans-Georg Schwarz von Raumer, Elisabeth Wittek, Heike Weippert

Invited speakers: Minister for Environment (Interface science –policy) invitation by Giselher Kaule, Integrated modeling (Farquharson or Peter Loveland (CEH), Diekkrüger (U Bonn) invitation by Karl Stahr).

5. Miscellaneous

5.1. Final reporting: Deadline 15.2.2007

5.2. Final publiation: The Management Board decided to envisage a book publication of the major project results. The editorial board is identical with the scientific board established for the final conference. Funding of the publications is not yet secured.

NEWS BRIEFS

ONE MAY DRINK WATER FROM PUDDLE[3]

Denmark has launched production of portable water filter that allowed purifying water from any muddy puddle for drinking purposes. The device is about the size of a large pen, 25 cm long and 3 cm in diameter.

Sucked water flows first through filter of polyethylene fibers, which catches particles having the size of more than 100 μm. The second filter, made of polyester fibers, intercepts particles of 15 μm in diameter. Then, water flows through a chamber with small polymeric balls saturated with iodine to kill cholera, typhoid, dysentery and other disease agents. Next chamber is full of activated carbon granules in order to remove obnoxious taste and odor of water and, at the same time, capture most of iodine. Some of iodine remains in water, and this is good to many third countries, for which this filter is developed, since their population lack iodine.

This filter can purify 700 l of water, which is a year's demand for one person, and it costs only $2. The quality of resulting water is much better than that of tap water in many cities of developed countries.

[3] Nauka & zhizn, 2006, № 5.

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