Interstate **C**ommission for **W**ater **C**oordination of Central Asia

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CONTENT

MINUTES OF THE 56th MEETING OF THE INTERSTATE COMMISSION FOR WATER COORDINATION (ICWC) OF THE REPUBLIC OF KAZAKHSTAN, THE KYRGYZ REPUBLIC, THE REPUBLIC OF TAJIKISTAN, TURKMENISTAN AND THE REPUBLIC OF UZBEKISTAN

January 12, 2011 Shymkent city

Attended:

ICWC members:

Uzakbaev Chyngysbek Makeshovich	Vice-chairman of the State Committee of the Kyrgyz Republic on water management and land reclamation
Bobokalonov Rakhmatjon Bobokalonovich	Minister of Land Reclamation and Water Resources, Republic of Tajikistan
Mukhammedov Akhmet	Deputy Minister of Water Resources, Turkmenistan
Khamraev Shavkat Rakhimovich	Deputy Minister, Head of Central Water Administration at the Ministry of Agriculture and Water Resources, Republic of Uzbekistan

ICWC Executive agencies:

Dukhovny Victor Abramovich	Director of SIC ICWC, Professor, Honorable ICWC member
Kdyrniyazov Burkitbay Tadjiniyazovich	Head of BWO “Amudarya”
Khamidov Makhmud Khamidovich	Head of BWO “Syrdarya”
Mukhitdinov Khayrullo Ergashevich	Head of ICWC Secretariat
Makarov Oleg Stepanovich	Director of Coordination Meteorological Center of ICWC, Director of Design and Technical Institute PKTI “Vodoavtomatika i metrologiya”

Invited:

Ibatullin Sagit Pakhmatullaevich	Chairman of EC IFAS
Ospanov Medet Ospanovich	Member of the Executive Committee of the International Fund for the Aral Sea saving in the

	Republic of Kazakhstan
Kenshimov Amirkhan Kadyrbekovich	Advisor of the Chairman of the Committee on water resources of the Ministry of Agriculture of the Republic of Kazakhstan
Kamoliddinov Anvar Kamoliddinovich	Senior researcher of the Tajik branch of SIC ICWC
Redjepov Aslan	Head of the International water cooperation department of the Service Administration
Kuchkarov Sharifzhan Zikrillaevich	Head of the Chirchik-Akhangaran basin irrigation systems authority
Ibodzoda Khairullo	Member of the Executive Committee of the International Fund for the Aral Sea saving in the Republic of Tajikistan
Beglov Ferdinand Fatikhovich	Head of the Department of SIC ICWC
Shamshieva Aziya Adilsheevna	Principal examiner of the Committee on water resources of the Ministry of Agriculture of the Republic of Kazakhstan
Karlykhanov Adilkhan Karlykhanovich	Head of the Aral-Syrdarya basin inspectorate on regulation of water resources use and protection of the Committee on water resources of the Ministry of Agriculture of the Republic of Kazakhstan
Seisenov Sembay Baimenovich	Director of RGP "Yugvodkhoz"

Chairman: Orman Anarbek Ongaruly - Chairman of the Committee on water resources of the Ministry of Agriculture of the Republic of Kazakhstan

Agenda

1. Regarding results of vegetation period 2010 on the Amudarya and Syrdarya river basins (responsible: BWO “Amudarya” and BWO “Syrdarya”).

2. Regarding water delivery, mode of the reservoirs cascade and withdrawal limits for non-vegetation period 2010-2011 in the Amudarya and Syrdarya river basins (responsible - BWO "Amudarya" and BWO "Syrdarya")

3. Consideration of the draft "Agreement between the Government of the Republic of Kazakhstan, the Government of Kyrgyz Republic, the Government of the Republic of Tajikistan and the Government of the Republic of Uzbekistan about water and energy resources use in the Syrdarya river basin" (it is submitted by the Committee on water resources of the Ministry of Agriculture of the Republic of Kyrgyzstan).

4. Miscellaneous.

5. Regarding agenda and venue of the next 57th ICWC meeting.

Having heard the ICWC members and participants of the meeting, and having exchanged opinions, the members of the Interstate Commission for Water Coordination of Central Asia have decided the followings:

First item:

1. Take into account the results of fulfillment of water withdrawal limits and of operation modes of cascade reservoirs in the Amudarya and Syrdarya river basins for vegetation period 2010 as informed by BWO “Amudarya” and BWO “Syrdarya”;

2. Hear the results of Commission's activities according to the items 1,2 of the 54-th ICWC meeting's agenda of January 14-15, 2010 with consideration of data 2010.

Ask the ICWC members to take attention to the Commission's reports for 2008-2009 and to give comments and proposals.

3. Allow to the ICWC members to conduct joint measurements on the marginal gauging stations under requests by BWO "Amudarya" and BWO "Syrdarya".

Second item:

1. Take into account the information of BWO "Amudarya" and BWO "Syrdarya" about water delivery implementation for the states in the Amudarya and Syrdarya river basins during the non-vegetation period 2010-2011.

2. Approve the planned operation modes of the reservoirs cascade and the water withdrawal limits for the states in the Amudarya and Surdarya river basins for the non-vegetation period 2010-2011.

Third item:

1. Organize additional discussion of the draft "Agreement between the Government of the Republic of Kazakhstan, the Government of Kyrgyz Republic, the Government of the Republic of Tajikistan and the Government of the Republic of Uzbekistan about water and energy resources use in the Syrdarya river basin" and to submit its results for consideration at the ICWC's meeting on the 4th quarter 2011.

Fourth item:

1. Entrust to the ICWC Secretariat to prepare a report about ICWC's activities to the EC IFAS meeting to March 20, 2011. To discuss the report by ICWC's members through questioning until March 31, 2011.

The SIC ICWC, BWO “Amudarya” and BWO “Syrdarya” have to assist in preparing the report about ICWC's activities.

Fifth item:

1. Conduct the next 57th ICWC meeting on May, 2011, in the Republic of Uzbekistan.

Agenda

1. Regarding results of non-vegetation period 2010-2011, mode of the reservoirs cascade and withdrawal limits for vegetation period 2011 in the Amudarya and Syrdarya river basins (responsible - BWO "Amudarya" and BWO "Syrdarya")

2. Consider results of Commission's activity according to the items 1,2 of 54th ICWC meeting's agenda of January, 14-15, 2010 with inclusion of data 2010 into analysis .

3. Approval the report on “Central Asia Regional Water Information Base (CAREWIB)” Project - Phase II (proposed by SIC ICWC).

4. Miscellaneous.

5. Regarding agenda and venue of the next 58th ICWC meeting.

For the Republic of Kazakhstan	A.O.Orman.
For the Republic of Kyrgyzstan	Ch.M.Uzakbaev
For the Republic of Tajikistan	R.B.Bobokalonov
For the Turkmenistan	A.Mukhammedov
For the Republic of Uzbekistan	Sh.R.Khamraev

RESULTS OF VEGETATION PERIOD 2010 IN THE AMUDARYA AND SYRDARYA RIVER BASINS

I. The Amudarya river basin

The water content of the Amudarya river at the conventional Atamyrat gauging station (GS) (upstream from the Garagumdarya river mouth) for vegetation period is 125.9%.

The use of fixed water withdrawal limits in the current vegetation period by the states is as follows:

- 87.3 % of fixed water withdrawal limit was used in total in the basin; under the limit of 39 billion 987 million m3, the actual use was 34 billion 913 million m3;

- The Republic of Kyrgyzstan used fixed water withdrawal limit up to 2.0 %; 9 million m3 were used actually under the limit 450 million m3;

- The Republic of Tajikistan used fixed water withdrawal limit up to 76.3 %; 5 billion 200 million m3 were used actually under the limit 6 billion 817 million m3;

- Turkmenistan used water withdrawal limit up to 87.2 %, under the limit 15 billion 500 million m3, actual figure indicated 13 billion 520 million m3;

- The Republic of Uzbekistan used water withdrawal limit up to 94.0 %, 16 billion 184 million m3 were used actually under the limit 17 billion 220 million m3.

Water supply plan in the Priaralie and the Aral Sea was fulfilled at 814.7 % for vegetation period; 17 billion 109 million m3 were delivered under the planned one of 2 billion 100 million m3.

As of October 1, 2010 the water volume of the Nurek reservoir amounted to 10 billion 541 million m3, while on the same day of last season it was 10 billion 526 million m3.

The volume of water in the Tuyamuyun reservoir on October 1, 2009 amounted to 5 billion 627 million m3. Last season on the same day, it was 5 billion 775 million m3.

The main tasks during the current vegetation period are the more precisely record and control of water resources use and distribution, and proportional water use at all river sections.

According the approved "Agreement between Turkmenistan and Uzbekistan on shared use of water resources in the lower reaches of the Amudarya", for the reporting period nine meetings of the commission on water allocation were held with participation of heads of production association "Dashoguzsuvkhojalyk",

NABISA (Karakalpakstan and Khorezm), BWO "Amudarya" and TMHS Management office. At these meetings the operation mode of TMHS was developed and water resources were allocated as agreed.

II. The Syrdarya river basin

According to the adjusted forecast of Hydromet Service of March 10, 2010 for vegetation period 2010 the water availability of Naryn, Karadarya, rivers situated in the north of Fergana Valley, Chirchik, Akhangaran was expected to be within 95-105 %, and water content of rivers situated in the south of Fergana Valley - 100-110 %. The inflow to the Toktogul reservoir was expected to be 109 %, Andijan reservoir – more than 100 %, Charvak reservoir – 103 % of the norm, and the total lateral inflow - 92 % of the norm.

The water content of the rivers in the Syrdarya river basin as a whole was expected to be 29.6 billion m3 or more than 100% of the norm.

The total available water resources for vegetation period 2010 including water in the reservoirs (without dead zone) amounted 42.5 billion m3. The available water volume was expected to be more by 3 billion m3 compared with 2009.

The operation mode of the Naryn-Syrdarya cascade reservoirs (NSCR) for vegetation period was considered in Shymkent at the 55rd ICWC meeting on April 3, 2010. The schedule plan of the NSCR operation and water withdrawal limits from the Syrdarya river for vegetation period 2010 wasn't approved at that meeting. Therefore the NSCR operation mode was being defined according the water management situation during the vegetation period. Water intake to the main canals was made taking into account water user requirements and actual water availability.

The results of the vegetation period 2010 are generally characterized by the following indicators.

From April 1 to October 1, the inflow to upper reservoirs (Table 2.1) reached 29 billion 874 million m^3 of water (164 % of the norm), which is 10,5 billion m^3 more than expected. The inflow to the Toktogul reservoir was 15 billion 244 million m3 (162% of the norm) as to 10 billion 303 milliom m3 forecasted, and to the Charvak reservoir - 7441 million m3 (143% of the norm) as to 5 billion 3386 milliom m3 forecasted. The inflow to the Andijan reservoir was more than the forecasted one by 3382 million m3 and was equal to 6 billion 386 milliom m3 (210% of the norm).

The lateral inflow accounted for 13 billion 838 million m^3 (123 % of the norm).

Total inflow in the basin reached 148 % of the norm or 43,7 billion m^3. The inflow was 12,68 billion m^3 more than expected.

Releases from reservoirs for vegetation period as a whole exceeded the averaged one for 2005-2009 by 51 % (Table 2.2). At the same time there was water shortage downstream the Kairakkum reservoir for land irrigation in Uzbekistan and

Kazakhstan on July. In that time the Republic of Kazakhstan imported electricity from Kyrgyzstan of which amount was equivalent to more than 800 million m3 of water in order to provide the required inflow to the Kairakkum reservoir by means of additional releases from the Toktogul reservoir. Simultaneously the Republic of Uzbekistan fed the Syrdarya river by means of the releases from the Andijan reseervoir. These actions resulted in the more than average annual inflow to the Kairakkum reservoir in the middle of July. Moreover it was obviously that since the end of July- the beginning of August the Toktogul reservoir would increase the releases because of its full volume that would resulted in further increasing of water content in the river's middle course. However the Kairakkum reservoir continued to limit the releases until the end of July and increased them only when it was completely filled up with water and started the transit operation mode. So the non-coordinated operation mode of the Naryn-Syrdarya cascade reservoirs (NSCR) has led firstly to the shortage of water in the river's middle course and secondly to the completely filled up of the Kairakkum reservoir at the end of vegetation period when it must be drawdown to the beginning of non-vegetation period according to the long operation experience.

However the water demands of the states were fully satisfied according to their requests, and water delivery was 81% that was planned by the 100% of water withdrawal limits. There were not complaints from water users.

The water delivery was implemented in the following volume (Table 2.3 and 2.4):

to Kazakhstan - 677,03 million m3 (85 % of the limit),

to Kyrgyzstan - 174,38 million m3 (71 % of the limit),

to Tajikistan - 1275,03 million m3 (67 % of the limit)

to Uzbekistan - 7343,68 million m3 (83 % of the limit).

The inflow to the Shardara reservoir was 11 billion 579 million m3 (Table 2.5).

The inflow to the Aral Sea and Priaralie was more than 3.4 billion m3 of water.

Actual operation mode of the Naryn-Syrdarya cascade reservoirs for vegetation period from April 1 till October 1, 2010 is given in the Table 2.6.

Table 2.1

Balance items	Norm	Volume, million m^3 (from 01.04. to 01.10.2010)		Percentage (%) of the norm		Actual (percentage of predicted)
		predicted	actual	predicted	actual	
Inflows to upper reservoirs:						
to Toktogul	9407	10303	15244	110	162	148
to Andijan	3035	3004	6386	99	210	213
to Charvak	5188	5386	7441	104	143	138
river Ugam	553	632	803	114	145	127
Total:	18183	19325	29874	106	164	155
lateral inflows:						
Toktogul–Uchkurgan	1184	1184	1191	100	101	101
Uchkurgan, Uchtepe-Kayrakkum	3378	3713	4142	110	123	112
Andijan – Uchtepe	2545	2369	3750	93	147	158
Kayrakkum –Chardara	3178	3469	3117	110	98	89
Gazalkent-g/s. Chinaz-Chirchik	986	944	1638	96	166	174
Total:	11271	11704	13838	104	123	118
TOTAL:	29454	31029	43712	105	148	141

Table 2.2

Reservoir	Releases (from 01.04.2010 to 01.10.2010), million m^3		Percentage (%)
	Average for 2005-09	actual	
Toktogul	5031	5445	108
Andijan	2619	6386	244
Charvak	4573	7441	163
Kayrakkum	7507	12330	164
Chardara	8698	11580	133
TOTAL:	28428	43182	152

Table 2.3

River reach, country-water user	Water withdrawal limit (100%), million m^3	Actual water withdrawal, million m^3	Percentage (%)
Toktogul–Uchkurgan hydroscheme			
Kyrgyzstan	161,66	126,23	78
Tajikistan	236,56	125,94	53
Uzbekistan	3547,88	2751,14	78
Uchkurgan–Kayrakkum hydroscheme			
Kyrgyzstan	84,83	48,15	57
Tajikistan	448,76	364,67	81
Uzbekistan	543,98	569,19	105
Kayrakkum hydroscheme–Shardara reservoir			
Kazakhstan	794,02	677,03	85
Tajikistan	1219,67	784,42	64
Uzbekistan	4707,67	4023,35	85

Table 2.4

Country-water user	Limit (100%) for 01.10.09, million m^3	Actual water withdrawal for 01.10.09, million m^3	Percentage (%)
Republic of Kyrgyzstan	246,49	174,38	71
Republic of Uzbekistan	8799,53	7343,68	83
Republic of Tajikistan	1904,99	1275,03	67
Republic of Kazakhstan (Dostlik canal)	794,02	677,03	85

Table 2.5.

Indicators	Average for 2005-2009, million m^3	Actual, million m3
Inflow to the Aral Sea	2994,5	3483,74
Discharge to the Arnasai depression	54,6	128,74
Inflow to the Shardara reservoir	5046,5	11579,84

Table 2.6

Schedule
of the Naryn-Syrdarya reservoirs cascade operation
for April 1, 2010 – September 30, 2010

	Unit	April actual	May actual	June actual	July actual	August actual	September actual	Total *million m^3*
Toktogul reservoir								
	m^3 /sec	477,27	1161,07	1570,67	1147,13	930,58	486,50	
Inflow to the reservoir	*mln m^3*	1237,08	3109,80	4071,17	3072,47	2492,47	1261,01	15243,99
Volume: beginning of the period	*mln m^3*	**9698,00**	**10319,00**	**12882,00**	**16538,00**	**18906,00**	**19463,00**	
End of the period	*mln m^3*	**10319,00**	**12882,00**	**16538,00**	**18906,00**	**19463,00**	**19509,00**	
	m^3 /sec	237,73	212,42	169,33	256,97	715,90	468,90	
Release from the reservoir	*mln m^3*	616,20	568,95	438,91	688,26	1917,48	1215,39	5445,19
Kayrakkum reservoir								
Inflow to the reservoir	*m^3 /sec*	677,80	986,74	1014,03	508,48	818,10	674,87	
	mln m^3	1756,86	2642,89	2628,37	1361,92	2191,19	1749,25	12330,48
Volume: beginning of the period	*mln m^3*	**3374,00**	**3339,90**	**3511,50**	**3521,30**	**2997,60**	**3276,20**	
End of the period	*mln m^3*	**3339,90**	**3511,50**	**3521,30**	**2997,60**	**3276,20**	**3379,00**	
	m^3 /sec	702,40	1019,58	1076,33	633,96	646,71	626,26	
Release from the reservoir	*mln m^3*	1820,61	2730,84	2789,85	1698,01	1732,15	1623,27	12394,72
Chardara reservoir								
	m^3 /sec	1045,39	1124,83	1101,05	411,67	245,04	482,77	
Inflow to the reservoir	*mln m^3*	2709,65	3012,74	2853,91	1102,61	656,32	1251,34	11586,56
Volume: beginning of the period	*mln m^3*	**5132,00**	**5211,00**	**5045,00**	**4236,00**	**2700,00**	**1510,00**	
End of the period	*mln m^3*	**5211,00**	**5045,00**	**4236,00**	**2700,00**	**1510,00**	**1043,00**	
	m^3 /sec	981,33	1175,00	1442,00	867,97	616,77	747,67	
Release from the reservoir	*mln m^3*	2543,62	3147,12	3737,66	2324,76	1651,96	1937,95	15343,08
	m^3 /sec	23,67	28,55	62,50	127,74	46,61	5,00	
Release to Kizilkum canal	*mln m^3*	61,34	76,47	162,00	342,14	124,85	12,96	779,77
Discharge to Arnasay	*m^3 /sec*	0,00	0,00	26,00	22,90	0,00	0,00	
depression	*mln m^3*	0,00	0,00	67,39	61,34	0,00	0,00	128,74

	Unit	April actual	May actual	June actual	July actual	August actual	September actual	Total *million* m^3
	m^3 /sec	216,12	265,59	296,28	204,55	164,25	176,11	
Inflow to the Aral Sea	*mln* m^3	560,18	711,34	767,95	547,85	439,93	456,49	3483,74
Charvak reservoir								
	m^3 /sec	421,90	649,06	737,60	543,23	295,39	174,10	
Inflow to the reservoir	*mln* m^3	1093,56	1738,45	1911,86	1454,98	791,16	451,27	7441,29
Volume: beginning of the period	*mln* m^3	**800,00**	**1091,00**	**1619,00**	**1971,00**	**1955,00**	**1886,00**	
End of the period	*mln* m^3	**1091,00**	**1619,00**	**1971,00**	**1955,00**	**1886,00**	**1858,00**	
	m^3 /sec	333,60	419,29	590,10	534,35	311,71	172,93	
Release from the reservoir	*mln* m^3	864,69	1123,03	1529,54	1431,22	834,88	448,24	6231,60
Andijan reservoir								
	m^3 /sec	386,27	608,71	668,37	420,84	225,10	112,60	
Inflow to the reservoir	*mln* m^3	1001,20	1630,37	1732,41	1127,17	602,90	291,86	6385,91
Volume: beginning of the period	*mln* m^3	**1238,41**	**1705,20**	**1665,00**	**1754,81**	**1645,00**	**1419,00**	
End of the period	*mln* m^3	**1705,20**	**1665,00**	**1754,81**	**1645,00**	**1419,90**	**1418,95**	
	m^3 /sec	200,11	620,47	636,19	458,97	308,69	110,13	
Release from the reservoir	*mln* m^3	518,69	1661,87	1649,01	1229,30	826,79	285,47	6171,13

WATER DELIVERY PROCESS, OPERATION MODES OF THE CASCADE OF RESERVOIRS AND WATER WITHDRAWAL LIMITS FOR NON-VEGETATION PERIOD 2010-2011 IN THE AMUDARYA AND SYRDARYA RIVER BASINS[1]

I. The Amudarya river basin

A) Water delivery process in the Amudarya river basin on 01.01.2011

Actual water content during three months of non-vegetation period in the Amudarya river basin in the river station Atamyrat upstream Garagumdarya was 89.4%. Last year it was 77.3%.The actual water content was 7064 million m3 versus the norm of 7902 million m3.

The actual flow in Kelif gauging station (boundary cross-section of water allocation between Turkmenistan and Uzbekistan) was 8 billion 328 million m3 versus the last year's one of 7 billion 728 million m3 (plus 600 million m3).

Preliminary plan of water supply to Priaralie and the Aral Sea during three months of non-vegetation period is fulfilled at 181.7%; 1908 million m3 of water was supplied versus 1050 million m3 of planned one.

Actual volumes of river's reservoirs on 01.01.2010:

- Nurek reservoir- 9076 million m3 .

- Tyuyamuyun reservoir- 4913 million m3.

The use of fixed water withdrawal limits during the three months of the non-vegetation period by states is as follows:

- In the whole basin, 108.1% of fixed water withdrawal limit was used; the actual water withdrawal was 7 billion 199 million m3 versus the water withdrawal limit of 6 billion 683 million m3, including:

- Republic of Tajikistan used 98.6% of fixed water withdrawal limit; the actual water withdrawal was 1474 million m3 versus the water withdrawal limit of 1494 million m3;

- Turkmenistan used 108.4% of water withdrawal limit; under the limit of 2 billion 421 million m3, the actual one was 2 billion 625 million m3;

- Republic of Uzbekistan used 113.2% of water withdrawal limit; under the limit of 2 billion 697 million m3, the actual one was 3 billion 53 million m3.

[1] Materials on the second item of the Agenda of the 56th ICWC meeting, Shymkent, January 12, 2011.

Preliminary results show that as a whole the states will implement the approved water withdrawal limits for non-vegetation period 2010-2011.

B) The water withdrawal limit for Central Asian states in the Amudarya river basin, and operation modes of the cascade of reservoirs for non-vegetation period 2010-2011

Water content in the river station Atamyrat upstream Garagumdarya for non-vegetation period 2010-2011 is expected to be within 80-85% of the norm, taking into account the average annual natural discharge.

The basin's states submitted preliminary water withdrawal limits for non-vegetation period 2010-2011 as follows:

Kyrgyz Republic - 0,0 million m^3

Republic of Tajikistan - 2 850,7 million m^3

Turkmenistan - 6 500 million m^3

Republic of Uzbekistan - 5 980 million m^3

Surkhandarya region - 370 million m^3

The total water withdrawal limit for the Amudarya basin is expected to be equal to 15700.7 million m3.

Additionally in the Amudarya river downstream the sanitary-ecological releases are expected to be defined and equal to 800 millon m3, including:

- Dashoguz province – 150.0 million m3
- Republic of Karakalpakstan – 500,0 million m3
- Khorezm province – 150,0 million m3

Also the water supply to Priaralie and the Aral Sea for non-vegetation period is expected to be planned and equal to 2100 million m3.

BWO "Amudarya" suggests to consider the operation mode of the Nurek and Tuyuamuyun reservoirs for non-vegetation period 2010-2011 taking into account of the actual data of 01.01.2011.

At last the BWO "Amudarya" suggests:

1. Approve the operation modes of the reservoirs cascade, water withdrawal limits, water delivery to the Aral Sea and to the Amudarya delta for non-vegetation period 2010-2011 submitted for consideration by the ICWC's members.

II. The Syrdarya river basin

According to the forecast of Hydrometeorological Service for non-vegetation period 2010-2011 the water content was expected to be for: the Naryn river - 127%, Chirchik river - 122% and Karadarya river - 128% of the norm.

The actual water management situation for last vegetation period as of December 25, 2010 is characterized as follows:

The inflow to the upper reservoirs (Table 2.1) actually was 3770 million m3. The inflow to the Toktogul reservoir was 2220 million m3, to the Andijan reservoir - 652 million m3, to the Charvak reservoir - 813 million m3.

The overall inflow in the basin reached 10.3 billion m3 including 6.5 billion m3 of the lateral inflow (Table 2.1).

The actual releases from reservoirs were 9% of the planned ones (Table 2.2).

As a result on December 25, 2010 the water volume in the reservoirs was: Toktogul - 18349 million m3, Andijan - 1359 million m3, Charvak - 1390 million m3. As a whole the water storage in the upper reservoirs is 21 billion 98 million m3 which 355 milliom m3 less than the planned one (21 billion 413 million m3) as of that date (Table 2.3).

The water delivery to the states-water users to December 25, 2010 is as follows (Table 2.4 and 2.5):

Kazakhstan (through the Dostyk canal) - 0 million m3;

Kyrgyzstan - 23,38 million m3 (103 % of the limit),

Tajikistan - 39,08 million m3 (37 %),

Uzbekistan - 1204,61 million m3 (101 %).

The delivered water to the Shardara reservoir equal 6.3 billion m3, and the overall inflow to the same reservoir is expected to be 15.2 billion m3.

According to the calculated data by BWO "Syrdarya" the Aral Sea and Priaralie received 1359.6 million m3 of water (Table 2.6).

According the last three non-vegetation months it can be noted that there was a dry autumn in 2010 versus the last years. The beginning of winter also was without enough precipitation. In these conditions much attention has to be paid to maximal saving and keeping water in the reservoirs. Available water resources of the Syrdarya river have to be used effectively this time to supply agricultural fields with water by implementing the preliminary watering and soil washing. Therefore such measures already are being implemented in Kyrgyzstan, Tajikistan and Uzbekistan, and 80% of irrigated lands are prepared to implement those measures in Kazakhstan.

BWO "Syrdarya" has elaborated the operation mode of NSRC for the period till April 1, 2011, having took into account the water management situation and forecasts of Hydrometeorological Services and actual water withdrawals during last three non-

vegetation months (Table 2.8). According to calculations by BWO "Syrdarya" the cascade reservoirs would keep enough water volume to the end of non-vegetation period what is the important reserve for implementing further irrigation.

The water withdrawal limits proposed by the states with consideration of water used in the last period are given in Table 2.7.

Table 2.1

Parameter	Volume, million m^3 (from 01.10.2010 till 25.12.2010)		
	predicted	actual	%
Inflows to upper reservoirs:			
to Toktogul	2247,52	2220,0	99
to Andijan	627,43	652,19	104
to Charvak	800,06	813,35	102
river Ugam	95,47	84,41	88
Total:	3770,48	3769,95	99,9
lateral inflows:			
Toktogul–Uchkurgan	206,58	206,58	100
Uchkurgan, Uchtepe-Kayrakkum	2204,23	2634,62	120
Andijan – Uchtepe	1356,05	1793,86	132
Kayrakkum –Chardara	1460,07	1250,73	86
Gazalkent-g/s. Chinaz-Chirchik	389,58	654,69	168
Total:	5616,51	6540,48	116,4
TOTAL:	9386,99	10310,43	109,8

Table 2.2.

Reservoir	Releases (from 01.10.2010 to 25.12.2010), million m^3		Percentage (%)
	scheduled	actual	
Toktogul	3881,54	3564,07	92
Andijan	750,43	713,66	95
Charvak	1114,54	1194,21	107
Kayrakkum	6647,82	6721,41	101
Chardara	5564,16	5670,43	102
TOTAL:	17958,49	17863,78	99

Table 2.3.

Reservoir	Reservoir storage, million m^3			
	on 01.10.10.	Scheduled on 25.12.2010	Actual on 25.12.2010	Actual on 25.12.09.
Toktogul	19509	18400	18349	11846
Andijan	1418.95	1477	1359	826
Charvak	1858	1536	1390	1437
Kayrakkum	3379	3418	3374	3526
Chardara	1043	2245	1940	2789
TOTAL:	27207.95	27076	26412	20424

Table 2.4.

River reach, country-water user	Actual water withdrawal, million m^3 on 25.12.10
Toktogul–Uchkurgan hydroscheme, including	565,59
Kyrgyzstan	21,39
Tajikistan	34,24
Uzbekistan	509,96
Uchkurgan–Kayrakkum hydroscheme, including	53,38
Kyrgyzstan	1,99
Tajikistan	0
Uzbekistan	51,39
Kayrakkum hydroscheme–Shardara reservoir, including	648,1
Kazakhstan	0
Tajikistan	4,84
Uzbekistan	643,26

Table 2.5.

Country-water user	water withdrawal limit, million m^3	Actual water withdrawal for 25.12.10, million m^3	%%
Republic of Kyrgyzstan	40	23,38	58
Republic of Uzbekistan	3300	1204,61	37
Republic of Tajikistan	180	39,08	22
Republic of Kazakhstan (Dostlik canal)	400	0	0

Table 2.6.

Indicators	Scheduled on 25.12.10, million m^3	Actual on 25.12.10, million m^3
Inflow to the Aral Sea	1330,78	1359,67
Discharge to the Arnasai depression	0	0
Inflow to the Shardara reservoir	8145,41	6356,77

Table 2.7.

River reach, country-water user	water withdrawal limit, million m^3	Actual water withdrawal for 25.12.10, million m^3	Residue for January-March 2011, million m^3
Total from the Syrdarya river	3920	1267,07	2652,93
Including:			
Republic of Kazakhstan (Dustlik canal)	400	0	400
Republic of Kyrgyzstan	40	23,38	16,62
Republic of Tajikistan	180	39,08	140,92
Republic of Uzbekistan	3300	1204,61	2095,39

Table 2.8

Schedule-forecast
of the Naryn-Syrdarya reservoirs cascade operation
for October 1, 2010 – March 31, 2011

	Unit	October actual	November actual	December actual	January actual	February actual	March actual	Total *million* m^3
Toktogul reservoir								
Inflow to the reservoir	m^3 /sec	**355,97**	**264,27**	**217,14**	**191,00**	**189,00**	**201,00**	3727,16
	mln m^3	953,43	684,98	581,59	511,57	457,23	538,36	
Volume: beginning of the period	*mln* m^3	**19509,00**	**19361,00**	**19025,00**	**18349,00**	**17253,16**	**16137,62**	8216,71
End of the period	*mln* m^3	**19361,00**	**19025,00**	**18349,00**	**17253,16**	**16137,62**	**15202,53**	
Release from the reservoir	m^3 /sec	**411,42**	**394,50**	**537,48**	**600,00**	**650,00**	**550,00**	
	mln m^3	1101,95	1022,54	1439,58	1607,04	1572,48	1473,12	
Kayrakkum reservoir								
Inflow to the reservoir	m^3 /sec	**711,39**	**810,10**	**968,19**	**886,71**	**953,70**	**731,62**	13240,09
	mln m^3	1905,38	2099,78	2593,21	2374,95	2307,19	1959,58	
Volume: beginning of the period	*mln* m^3	**3379,00**	**3403,70**	**3452,70**	**34,01,78**	**3418,00**	**3418,00**	13511,47
End of the period	*mln* m^3	**3403,70**	**3452,70**	**3374,00**	**3418,00**	**3418,00**	**3418,00**	
Release from the reservoir	m^3 /sec	**742,78**	**790,03,**	**1002,16**	**904,25**	**977,16**	**748,26**	
	mln m^3	1989,45	2047,77	2684,19	2421,96	2363,95	2004,15	
Chardara reservoir								
Inflow to the reservoir	m^3 /sec	**626,53**	**764,15**	**1007,31**	**1159,30**	**1215,79**	**977,19**	15020,40
	mln m^3	1678,10	1980,68	2697,99	3105,08	2941,25	2617,30	
Volume: beginning of the period	*mln* m^3	**1043,00**	**947,00**	**1068,00**	**1940,00**	**3557,23**	**4541,80**	9786,96
End of the period	*mln* m^3	**947,00**	**1068,00**	**1940,00**	**3557,23**	**4541,80**	**5400,00**	
Release from the reservoir	m^3 /sec	**730,00**	**761,67**	**650,00**	**550,00**	**600,00**	**445,00**	
	mln m^3	1955,23	1974,24	1740,96	1473,12	1451,52	1191,89	
Release to Kizilkum canal	m^3 /sec	**5,00**	**5,00**	**5,00**	**5,00**	**5,00**	**6,77**	83,38
	mln m^3	13,39	12,96	13,39	13,39	12,10	18,14	
Discharge to Arnasay depression	m^3 /sec	**0,00**	**0,00**	**0,00**	**0,00**	**200,00**	**200,00**	1019,52
	mln m^3	0,00	0,00	0,00	0,00	483,84	535,68	

	Unit	October actual	November actual	December actual	January actual	February actual	March actual	Total *million* m^3
Inflow to the Aral Sea	m^3 /sec	171,05	173,83	168,37	171,90	165,79	162,71	2656,95
	mln m^3	458,14	450,57	450,96	460,43	401,07	435,80	
Charvak reservoir								
Inflow to the reservoir	m^3 /sec	**120,68**	**101,79**	**84,49**	**79,00**	**70,00**	**98,00**	1456,78
	mln m^3	323,22	263,83	226,30	211,59	169,34	262,48	
Volume: beginning of the period	*mln* m^3	**1858,00**	**1748,00**	**1583,00**	**1390,00**	**1332,15**	**1222,31**	2008,10
End of the period	*mln* m^3	**1748,00**	**1583,00**	**1390,00**	**1332,15**	**1222,31**	**1216,69**	
Release from the reservoir	m^3 /sec	**150,10**	**146,20**	**154,29**	**100,00**	**115,00**	**100,00**	
	mln m^3	402,01	378,95	413,25	267,84	278,21	267,84	
Andijan reservoir								
Inflow to the reservoir	m^3 /sec	**99,84**	**79,30**	**66,92**	**64,00**	**63,00**	**84,00**	1201,00
	mln m^3	267,41	205,55	179,23	171,42	152,41	224,99	
Volume: beginning of the period	*mln* m^3	**1418,95**	**1390,80**	**1350,90**	**1359,00**	**1423,20**	**1478,77**	1105,05
End of the period	*mln* m^3	**1390,80**	**1350,90**	**1359,00**	**1423,20**	**1478,77**	**1516,19**	
Release from the reservoir	m^3 /sec	**109,66**	**96,45**	**63,45**	**40,00**	**40,00**	**70,00**	
	mln m^3	293,72	249,99	169,95	107,14	96,77	187,49	

RURAL ENTERPRISE SUPPORT PROJECT - PHASE II. IRRIGATION AND DRAINAGE COMPONENT

Project progress overview from July 1 untill December 31, 2010 and key results

During the reporting period, the Project held 2 steering committee meetings. At the 1st PSC meeting which was held on July 22, 2010 the Project Manager appointed by SDC was introduced, the items and conclusions of the report #2 on implemented work, problems encountered and ways forward were discussed. The PSC acknowledged the quality of the report; considerable progress achieved and discussed the key project implementation modalities and plans.

As a result, the PSC members approved the appointment of Project Manager and the progress report # 2 of the project and made changes to the YPO for 2010, taking into account the progress, the recommendations of the joint monitoring mission of the World Bank and SDC in May 2010 and the comments of the Rural Restructuring Agency (RRA).

The second meeting of the PSC was held December 17, 2010. The meeting discussed the work plan for 2011, the current issues of the project implementation progress and recommendations of joint monitoring mission of the World Bank and SDC in November 2010. In particular, PSC approved the purchase of personal computers, printers, the accounting software and bikes for each WUA involved into the the project, as well as the announcement of the competition between the ISA, WUA and farmers on better implementation of the project tasks. The PSC's members also approved the YPO for 2011 and the delay of work related to the interaction with the RRA International Technical Adviser.

To further implement the agreed YOP the project has involved to the work the competent specialists. Short-term contracts with detailed Terms of Reference and work plans were prepared and signed with 35 short-term consultants in order to achieve the required level of expertise and experience in appropriate monitoring and research, training, programming, hydrometry, agronomy, supplies, legal services, accounting, economic analysis and institutional / organizational development. These contracts are being executed and will be implemented according to planned schedule. Accordingly goods (products) and services necessary for project implementation, according to the SDC rules on procurement and supply, were delivered.

Simultaneously, the project closely cooperated with RRA's district specialists on irrigation and drainage in each project area. During the reporting period meetings

with leading experts of RRA's Tashkent office, where they discussed and addressed the important arose issues and problems, were conducted monthly. In addition, effective interaction with a specialist of RRA on all project aspects related to WUA was ensured. Since October 2010 the project has at its disposal a fully prepared and equipped office in the RRA's building in Tashkent, which ensured and facilitated further fruitful coordinated work at the regional level.

The project also coordinated its activities on the training of personnel with the relevant activities of Component 3 RESP-II "Education and Consulting Services in the field of agricultural production" (ECSAP). In order to improve efficiency and achieve results in the capacity building, the project conducted additional trainings on the water and agricultural issues with participation of farmers from the project area, as well as adjacent areas in respective fields included in the project.

After getting acquainted with the new Law on Water and Water Use (December 2009) and its features of regulation in water sector, the practical guide on legal aspects of the establishment and operation of WUAs, which was submitted to the MAWR for review and comment, has been drawn up. The MAWR has approved this practical guide, and recommended it for translation into Uzbek language and to disseminate at all levels of water hierarchy (system). Similarly, under the MAWR request, the project developed the legislation package needed for the restructuring and registration of the WUA in light of the requirements and provisions of the new Water and Wateruse Law. This package was reviewed by the Government. The package includes the bylaws and internal rules and regulations, standard forms of contracts for water delivery between the WUA and its members (farmers), as well as between the WUA and the AIS. To date, the bylaws have been adopted by the MAWR as the basis of future bylaws model for WUAs in Uzbekistan. Currently, these standard contracts are under review and approvals at various levels.

Simultaneously, the project has focused on social mobilization, conducting the trainings in accordance with the training program, providing the necessary assistance to WUAs in reorganization along the hydrological boundaries, in developing the work plans and budgets, in monitoring the fees collecting, as well as the financial improving of the WUAs activities. After compiling and preparing the documents for WUAs establishment and their approval by WUAs at their general meetings, these documents have been submitted to the appropriate authorities for official registration. All 62 the newly established WUAs have been legally registered in accordance with the requirements of new legislation.

The project conducted in-depth study of the infrastructure's conditions of in the seven main WUAs and prepared proposals for the location and types of the needed water metering structures and checkpoints to outlets for water user groups. At the end of the vegtation period the project has helped every WUAs involved into the project to assess the cost of their on-farm irrigation and drainage infrastructure, to prepare the survey documents and to define the priority activities, to prepare the water use plans for non-vegetation period, to analyze annual financial and operating results, and to develop appropriate management plans of next year. The project also assist to each WUAs in calculations for existing contracts on water distribution to

farmers -members and the contracts with AIS in order to justify water demand in non-vegetation period.

After the survey of FFS plots and preparing protocols for these schools (the field passports), approved by local authorities, there have been efficient and effective measures on these plots. In particular, a simple water-saving technologies have been proposed and key performance indicators of water productivity at these plots have been monitored. Construction of water measuring facilities and checkpoints are also in the final stages. On the basis of trainings for trainers (instructors), the project began holding classes in the FFS, where the owners of 33 sites and seven demonstration plots have shown to the neighboring farmers a simple water-saving technologies and innovative methods of farming, which increase the productivity of farms. The project also produced the corresponding simple booklets and brochures, which were distributed to farmers and to staff of WUA and personnel of AIS / BAIS involved into the support of the FFS activity.

During the reporting period the project's working group, consisting of local economists and financial analysts, led by the foreign consultant, conducted a comprehensive financial and economic research. This study was to prepare a guidance on financial and economic analysis at the farm and WUA's level, to collect and analyze data, including to study the possibility of repayment of loans allocated to equipment acquisition and restoration of farm infrastructure to further enhance and improve the economic and financial status of the WUA and its farmers-members. Preliminary results of the study and a preliminary report on machinery and equipment have been presented for round table discussions held by representatives of MAWR, RRA, the World Bank and SDC in the framework of a joint monitoring mission in November 2010. In accordance with the recommendations of this mission, a final report on the possibilities of taking the loan for the purchase of machinery and equipment with detailed proposals for policy dialogue was presented to RRA and the World Bank in December 2010. At present a report on the integrated financial and economic study is being finalized.

From September 26 to October 2, 2010 the trip of leading experts of MAWR, BAIS, AIS and WUA was organized to Spain aiming to their first-hand acquaintance with best practices in IWRM and development of WUA and its further implementation in the field. According to the results evaluation all 22 participants recognized the quality and usefulness of the study tour, as well as the suitability seen there practices and activities on the IWRM for their subsequent promotion and implementation at all levels of water hierarchy in Uzbekistan.

Two regional conferences of WUAs as the annual planning "from bottom to top" process have been held on October 25 and 27, 2010 in Fergana and Samarkand, respectively. These conferences were attended by representatives of MAWR, RRA, 62 WUAs, 40 farmers - owners of FFS and demonstration sites, specialists on IWRM and water productivity improving, as well as the district and regional project staff. Several interactive sessions and round tables at the MAWR / AIS / BAIS / RRA, WUA and farmers levels , which were devoted to the current work, sharing of experiences and best practices in performance, to discussing the gaps and identifying further ways of work in this direction were held. The activities on these

conferences has been well adopted by participants and were, in fact, as an excellent exercise for the evaluation of performance and teamwork.

Materials of these conferences were further analyzed and included as part into the YPO for 2011 which was presented and discussed during the annual planning workshop held on October 29, 2010 in Tashkent. This workshop was attended by project staff, representatives of the MAWR, RRA, specialists of the projects on improving water productivity and IWRM, and by the SDC. The workshop was conducted online to achieve the best results.

The Project has established a useful collaboration with other projects financed by the SDC. Several joint meetings with the project teams of IWRM-Ferghana project and the WPI-PL project were held in order to ensure synchronization of activities, exchange of expertise in areas such as the best work performance, lessons learned, adopted and used approaches, tools and appropriate materials. The project staff attended seminars of IWRM project and of the WPI-PL project and vice versa - in order to ensure and facilitate the cross-examination and to avoid unnecessary repetitions in general activity. In addition, experts of the IWRM-Fergana project and WPI-PL project were actively involved in the project implementation as a short-term consultants to ensure synergy and support.

The software and information system (SIS) at the canal level developed in the framework of the IWRM-Ferghana project has been applied and adapted to the pilot canal Mirishkor. The first version of the SIS was successfully presented in December 2010 and its trial will soon start. Currently the training packages IWRM-Ferghana and brochures on water productivity improvement, including the Guidelines for WUA development is being used and adapted to the specific needs of the project in light of the new Law on Water and Water Use. The first version of the strategy for IWRM at the AIS level was developed and revised on the basis of discussions and consultations with the MAWR, AIS and BAIS, taking into account comments and suggestions of experts of the IWRM-Ferghana project and external specialists. Its final version, according to a recent decision of the PSC, depend on the approval of the shared vision of the IWRM concept within the framework of the IWRM-Ferghana project by the Government.

During the reporting period, active measures for the political dialogue were conducted. The project communicated with various representatives of the authorities, including provincial governors, the MAWR and the Cabinet of Ministers, in order to inform them about the WUA's problems and the proposals for further activity, as well as to provide support in improving the financial situation of the WUA. Owing to these efforts some beneficial steps in this direction were undertaken. In particular, the minutes of the meeting of the Cabinet of Ministers [1] 03-11-3 on December 13, 2010 regarding the autumn-winter agricultural measures (item 6) provides monitoring of the monthly financial transfers to the WUA's accounts, allocated to farmers for WUA services within government loans for agricultural products on government contracts that will provide the optimum level of WUAs work.

During the reporting period the external review of farmers' satisfaction to assess the activity of WUA and FFS was also conducted. This review confirmed the appropriateness and timeliness of the project, its contribution to support the WUA and reduce conflicts over water, the quality of training and benefit of the FFS demonstration. This review also indicated the main issues to be addressed next year.

In general, the project has implemented important measures and done steps forward during the reporting period. The key performance indicators and achievements of the project submitted in accordance with the contribution to the outcomes planned by the PIP and expected to the end of the project's two subcomponents 2(b) and 2 (c) (as amended and approved by the PSC on December 3, 2009) are as follows:

Output 1: By project year 3 the Consortium provides a minimum of 40 trainings per year to BAIS/AIS and WUAs.

- Owing to the conducted trainings the staff capacity of BAIS / AIS and WUA is increasing. During the reporting period 35 trainings in seven project districts were conducted. Of these 21 trainings were conducted to increase participants' knowledge on WUA's water management and governance, the basics of work with contracts, the supply of goods (products) and services under the current legislation of Uzbekistan, the planning and execution of the operation and maintenance of WUA's farm infrastructure, the resolving of water conflicts at the WUA's level, accounting and reporting in the WUA, and development of operational and financial plans for 2011. The trainings were attended by representatives of local authorities, AIS, BAIS, WUA and RRA - 633 people in total. In particular, 42 trainers of the Component 3 ECSAP RESP-II attended training courses. 14 trainings were conducted on the subcomponent 2c for the reporting period with involved 419 people.

- In order to ensure the effective and efficient capacity building the relevant trainings are organized with the constant questioning of participants about the learned material and the subsequent evaluation and analysis of events. After evaluation and analysis of the training, the training program is being corrected. The training plan for 2011 for the WUA was presented to RRA for review, comments and recommendations;

- Goal-directedness and quality of trainings are provided through the preparation of appropriate training materials and aids. The training materials and aids are being prepared on the basis of existing information and training materials of the IWRM-FV and WPI-PL projects as well of 6 volumes "Guidebooks for WUAs in Uzbekistan" with regard to the specific needs and requirements of the project, also various instructions and manuals are being prepared within the project.

Output 2: By project year 3 WUAs are in a position to elaborate operational and financial management plans and include costs of the required maintenance of the on-farm irrigation and drainage systems into their annual budgets.

- Comprehensive financial and economic study implemented by the group of the project economists led by the International Consultant revealed the conditions and means in order the WUAs themselves would able to develop appropriate work plans and financial management plans which include the costs for necessary maintenance of irrigation and drainage networks of farms into the annual budgets. The methodology and guidelines on conducting comprehensive financial and economic analysis of the project's WUAs and their farmers-members, as well the set of indicators for monitoring of economic and financial impacts of the project at the WUA and farmers levels have been developed within this study. Financial and economic analysis of 62 newly established WUAs has provided an assessment of possibility to use loans of each WUA and their ability to carry out the operation and maintenance of existing infrastructure. Assisting for WUAs in the development of financial monitoring and collecting payments for delivered services provide a sound basis for improving the financial results of WUA's activity and the operation and maintenance of the existing farm infrastructure;

- The training courses conducted in the WUA in each region and the assistance for 62 newly established WUAs in their activity on planning for 2011 greatly extend the WUAs capabilities for implementation of simple business plans and financial management plans, which include the cost of necessary maintenance of irrigation and drainage networks into their annual budgets;

- The ongoing political dialogue aimed to improving the financial results of WUAs activity through the implementation of the project recommendations on the use of the proper way to collect payments for delivered services and new farming methods would be a valuable contribution to financial recovery and financial sustainability of WUAs and their farmers-members, as well as would provide proper maintenance, repair and rehabilitation of the existing farm infrastructure.

Output 3: Hydrographic WUAs are established and ready to qualify for investments in on-farm infrastructure and equipment.

- Ongoing efforts to continue the social mobilization from the lower level, have provided the WUA reorganization to the water consumers association with active involvement of all water users into water resources management.

- The project working group has prepared a standard set of documentation required for registration of WUA in light of the new Law on water and water use, and the appropriate efforts on explaining to local authorities the provisions and requirements of this Law have provided and facilitated the re-registration of WUAs as NGOs.

- Linking a linear schemes of irrigation and drainage infrastructures with irrigated contours of farmers within the WUA provides protection of new WUAs from possible risks of re-registration in case of change of farm's owners and / or property rights.

- 62 new hydrographic WUAs have been registered in all project areas by the end of October 2010 as a result of the aforementioned project activity;

Output 4: Annual survey on water users satisfaction with newly established hydrographic WUAs is conducted.

- The water users' satisfaction survey, conducted during the reporting period in order to assess the WUA's activities, has revealed a number of shortcomings and obstacles, and recommended to introduce appropriate adjustments (corrections) into the project implementation method. Because the WUA reorganization has just been completed, the present study drew primarily attention on qualitative assessment and the development of appropriate ground for a comprehensive quantitative and qualitative assessment next year. The database on WUA development, which is created by the project, has provided essential reference information for the survey.

Output 5: Management and governance functions are strengthened in the new hydrographic WCAs, which result in (1) efficient, demand oriented water use and water savings; and (2) financial viability of WCAs allow servicing of infrastructure and equipment loans as well as to perform necessary O&M tasks.

- Developed linear scheme of new hydrographic WUAs and full inventory of on-farm irrigation systems updated further in line with the farm optimization process for the reporting period sets up a base for efficient demand-oriented water use in the newly established WUAs.
- Assistance to WUAs in organizing appropriate economic and administrative structures, in equal transfering of debts (liabilities) and assets, in preparing water use plans for non-vegetation period on the basis of existing approaches in water allocation and cropping mix as well as in preparing simple operating-financial plans provide proper functioning of WUA to a large degree and direct them to implement needed operation and maintenance;
- Implementation of the project activity on expansion of social mobilization activities and continuous assistance to each newly established WUA contribute to the achievement of the scheduled outputs by the end of the project.

Output 6: For WUA support, human capacities are trained and organizational structures are built-up allowing the relevant AIS staff and AIS units to increasingly perform the required functions and tasks in an independent and professional manner.

- Strategy defining new tasks and framework of water management organizations in the irrigation and sub-basin systems, and of organizations with supervising and governing functions in the water management sphere is being currently revised

and updated in line with stakeholder demands and this will be base to improve appropriate organizations supporting WUAs;

- Extensive on-site training of the AIS staff involved into the WUA strengthening activities, and participation of the AIS/BAIS staff in all project trainings builds up their capacities and enables them more actively to implement own functions and tasks on appropriate support for WUA in an independent and professional manner;

- The first-hand international experience and the best economic and management practice in the water resources sphere obtained by the representatives of BAIS/AIS and MAWR during the study tour in Spain on September-October 2010 have increased and strengthened considerably their understanding of the IWRM concept and allowed them to promote and adopt this experience actively in own organizations and agencies.

Output 7: Hydrographic canal management and water scheduling models, systems, procedures and contractual arrangements are developed, tested and introduced at least in one AIS and a realistic cost estimate for implementation in the 6 remaining rayons is prepared by project year 3

- The software information system (SIS) for AIS developed by the project has to be adopted and tested shortly and it provides the main canal level implementation of water distribution scheduling tools, systems, procedures and contract arrangements at the Mirishkor canal in the Kashkadaya province.

- Practical application of the developed by the Project SIS model (adopted from the IWRM-Fergana project) linking the canal level water allocation tools to the WUA level demand as well the AIS personnel training will provide means for effective and efficient water distribution from canal to the farm gate.

Output 8: One fully equipped demo plot will be established in each rayon to demonstrate advanced I&D technologies and monitor all relevant indicators. In addition, Farmer Field Schools will be established in 33 WUAs to demonstrate realistic, simple and affordable technologies and to monitor 3-4 core indicators

- Field surveys completed and protocols (field passports) prepared for 33 FFS plots, including 89 water metering structures constructed, demonstrate simple water saving technologies and farming innovations as well as the field level monitoring of water productivity improvement at FFS;
- Baseline survey results updated by the project during the reporting period provided grounds for identification of the main demonstration plot location in each rayon. These proposals submitted to RRA and Uzbek MAWR will facilitate final selection of demo plots by the RRA International Consultant;

- Monitoring of FFS performance indicators and developed forms, training on water metering and water measurement structure maintenance for FFS owners were conducted and a short term consultant to verify and analyse field monitoring data was contracted; all abovementioned shall ensure appropriate data collection in comparing with monitoring of innovations being implemented within the FFS plots;
- 14 workshops for trainers (instructors) on vegetation - non-vegetation period activities were conducted during the reporting period, as well 7 brochures and ten instructions were disseminated among farmers both in the project districts and neighboring ones, what ensured sustainable dissemination of information on water supply services and farming innovations. About 419 AIS and WUA representatives as well as farmers - owners of the FFS plots attended these workshops.
- 70 concurrent trainings in FFS conducted by the trainers (instructors) for the reporting period have demonstrated appropriate irrigation and agricultural production cycles to 1813 neighboring farmers who attended these trainings.

Output 9: Regular meetings are held with RRA as well as IWRM-Fergana and WPI projects where experiences and expertise and the related extension materials are exchanged, working plans synchronized as far as possible.

- The project regularly met with RRA representatives, RESPII RTAS Component 3 coordinator, IWRM-Fergana and WPI-PL projects, participation in appropriate conferences held by other projects and vice versa, enabled to discuss ongoing issues, coordinate working plans, exchange experiences and respective materials as well to avoid duplication of events. Specifically, FFS training program synchronised with that of the RTAS component has enhanced effect of unified water and agricultural extension messages dissemination and extended its scope. These meetings provided more efficient implementation of the project, more close cooperation and harmonization of planned activities.

Output 10: Introduction of new irrigation technologies and development and dissemination of irrigation technology packages.

- The training program developed and being implemented by the project and the extension materials adapted to the local conditions and disseminated through the FFS during the reporting period will form a basis for development and dissemination of new irrigation technology packages as soon as seven main demonstration plots are selected, respective protocols developed and advanced technologies introduced.

REGIONAL WORKSHOP ON CAPACITY BUILDING IN THE INTEGRATED WATER RESOURCES MANAGEMENT AND PLANNING IN CENTRAL ASIA

9 – 11 March 2011, Tashkent

Tashkent hosted the third regional workshop organized by SIC with the support of UNESCO-IHE Institute for Water Education. The workshop had the following objectives:

- to demonstrate readiness of future national trainers to organize and hold national workshops in each country;
- to involve representatives of higher educational institutions (HEIs) in the work of the Joint Programe and further development of training material.

The workshop was attended by 36 people (detailed list of participants is attached).

After Mr. P. Umarov opened the workshop, project managers from SIC ICWC and UNESCO-IHE welcomed the participants.

During his speech, prof. V.A. Dukhovny thanked Mr. Joop de Schutter for supporting this project. Considering that this is the final regional workshop and that national trainings will be conducted in each country afterwards, prof. V. Dukhovny emphasized the need to summarize the work done during the entire period. The following training materials on four main areas were developed by efforts of SIC ICWC leading experts:

1. Integrated water resources management (IWRM);
2. Improvement of irrigated agriculture (IIA);
3. International water law and policy (IWLP);
4. Regional cooperation in transboundary rivers (RCTR).

These materials have been previously disseminated to future national trainers and representatives of the five Central Asian states to study the possibility of adjustment to local conditions. After discussing these materials at the first regional workshop (7-16 June 2010, Tashkent), participants were to prepare their proposals and recommendations for the second regional workshop (26-30 October 2010). Unfortunately, participants made only minor additions to training materials and provided few recommendations for adjusting them to national trainings in their countries. To enhance review of training materials and to improve organization of national trainings, along with coverage of students - future specialists, workshop leaders invited not only representatives of water agencies selected by ICWC Members, but also of HEIs. Their involvement in the training process at the national level will undoubtedly be of mutual benefit and enrich both training program and educational program of HEIs.

Prof. V. Dukhovny mentioned about joining of Afghanistan in participatory process of water cooperation. So, in November 2010, experts of Kabul University participated in international-scientific symposium "Water in Central Asia", which was dedicated to water issues in Central Asia and organized jointly with the German Federal Foreign Office. The representatives of Afghanistan also participated in the European Parliament meeting, which was attended by representatives of all Central Asian states as well. Moreover, prof. Dukhovny expressed hope that Afghan representatives will participate in the Regional Conference for Eastern Europe, Caucasus and Central Asian countries "Towards the 6th World Water Forum - Cooperative Actions for Water Security" to be held in May 2011, and invited everyone to participate in the event.

The main objective of the workshop was to prove possibility of holding the national training by each national team using the training material provided by SIC ICWC, and taking into account the particularities of each country. Mr. Joop de Schutter envisaged under the project financial support to conduct five national workshops upon readiness of national teams. SIC ICWC experts will attend national workshops as observers in order to elaborate with the support of all project participants a program for development of national trainings.

Taking into account the huge need for training, in the framework of three major Fergana Valley projects implemented within the borders of the Kyrgyz Republic, Tajikistan and Uzbekistan, over 12 thousand people have been trained so far, including both middle and lower level (WUAs) representatives, who need to be trained in the fundamentals of legal and organizational activities, water use planning and financial stability.

Prof. Dukhovny told the participants that at his insistence ASBP-3 has introduced a component on establishment of a training network in Central Asia.

In his speech, Mr. Joop de Schutter stressed the importance of HEIs in building capacity in water sector, especially given the need to manage water resources in Central Asia, which should be based on the international legal framework for transboundary water resources management. In this regard, it is very important to train a new generation of water sector specialists.

Central Asian countries have shared water resources. This condition requires improving the regulatory framework for governing regional relations in water sector using international experience. It is therefore very important to organize this kind of event, where one can discuss and establish these rules that should be based on research and development. In this connection, it is necessary to ensure the sustainability of these training courses and conduct training at the advanced level.

Mr. Joop de Schutter supported the idea of creating the training network in Central Asia under the ASBP-3 capacity building component and involvement of Afghanistan in the work of the Joint Programme.

It is necessary to enter into cooperation for capacity building both at regional and international levels. Currently, the international community is concerned about the situation in Central Asian region, which makes it possible to get support for training development.

According to Mr. de Schutter the objective of the workshop is to develop practical ideas about establishment of regional training center on water, which will create the necessary conditions for young professionals to build their careers in water sector. These proposals could be presented at the Regional Conference for EECCA countries "Towards the 6th World Water Forum – Common Actions for Water Security".

The workshop proceeded with speeches of keynote speakers (according to the workshop program) for each country, where they briefly presented their vision of organization and holding of national training workshops.

Nurgazy Mamataliev, Director, Kyrgyz branch of SIC ICWC made a presentation on the potential of the country and possibility of organizing national workshop. He mentioned about availability of training centers with necessary conditions for organizing workshop. One of such centers, designed for trainees in the northern region of the republic, is located in the building of the Committee on Water Resources and Land Reclamation. The building of the Osh Basin Water Management Authority (BWMA) has two training centers for trainees in the southern region, including one established under financing of IWRM-Fergana Project (SDC), the other under On-Farm Irrigation Project (World Bank). In addition, each Rayon Water Management Administration (RWMA) also has training rooms to train representatives of WUAs, including farmers.

At present, representatives of HEIs are invited to the process of training of trainers with specialists of water management organizations. Among them Roza Bekboeva, PhD, Head of the Department of Hydraulic Engineering in Mountain Area, Faculty of Natural Resources Management (NRMF), Kyrgyz National Agrarian University and Elena Drugaleva, PhD, Head of the Department of Land Reclamation and Water Management.

In his presentation Subkhonkul Davlatov, representative of Tajikistan, listed the factors that will predetermine the possibility of holding national workshops:

1. Upcoming reforms in the agricultural sector.

The Ministry of Land Reclamation and Water Resources of the Republic of Tajikistan developed and presented the following draft documents:

- amendments and additions to the Water Code;
- new draft Law on Drinking Water Supply in Tajikistan;
- Draft Decree of the Government of Tajikistan on Agrarian Reform.

For the moment, there are three options for reform of the Ministry developed by the FAO representative office in Tajikistan, World Bank and the Ministry of Land Reclamation and Water Resources. Considering that decree adoption by the Tajik Government takes a long time, Mr. Davlatov proposed to move the national workshop in Tajikistan from September - October 2011 to January - February 2012.

2. Stages of conducting national workshops and number of participants

Mr. Davlatov proposed to hold a national workshop in two stages. The first stage envisages holding training for central bodies of the Ministry, heads or deputy heads of oblast and rayon departments of water resources (15-20 people), while the second

stage for (WUAs) and local government employees involved in the water sector (15-20 people).

3. Financing.

Mr. Davlatov indicated that 11.5 thousand USD would be required at each stage of the national workshop. This amount takes into account the expenses only for nationals of Tajikistan. In particular he highlighted the issue of remuneration of national trainers, since it is out- of- service training. Upon completion of Mr. Davlatov's speech, Mr. Joop de Schutter proposed to include capacity-building component in the reform programme of the Ministry of RT.

Nariman Kipshakbayev, Director, Kazakh Branch of SIC ICWC, in his presentation described water situation in the country and expressed his desire to organize a national workshop.

Durdy Ataev provided the training material to be used during the national workshop, where particular attention will be given to role-plays.

Jalolov Masharipov, representative of Uzbekistan made a presentation in which introduced participants with a plan for organization of a national workshop.

Having heard all keynote speeches, prof. V. Dukhovny summarized the readiness of the Kyrgyz, Tajik and Uzbek national teams to conduct workshops. Yusup Rysbekov, leader of IWLP block, noted the negative impact of a change of trainers on their readiness to organize the training.

Further to the above keynote speeches, Chingizbek Uzakbaev, Deputy Chairman, State Committee on Water Resources and Land Reclamation of the Kyrgyz Republic addressed the workshop participants. Commenting on the importance of organizing training for water specialists and highly appreciating SIC ICWC efforts on preparing training modules for all thematic blocks, he noted that the theme "Water-saving technology" requires more detailed consideration, as it represents the highest priority for the region. Mr. Uzakbaev supported the idea of Mr. Joop de Schutter to establish a regional training center, and proposed to open Water Energy Academy in Bishkek.

As the workshop proceeded, speeches of future national trainers for each of the blocks followed: IWRM, IIA, IWLP and RCTR.

Presentations on IWRM block

From Kazakhstan Nariman Kipshakbayev represented IWRM block. After his presentation there began a discussion about the activities of rayon water organizations mentioned by Mr. Kipshpkbaev.

Nurgazy Mamataliev (Kyrgyzstan) made a presentation on "Principles of IWRM in the Akbura River basin", where proposed to include the results of the IWRM-Fergana in the training material of IWRM block. Mr. Mamataliev highlighted the results of horizontal (across sectors) dissemination of IWRM and the need for its vertical implementation through application of "bottom up" and "top down" principles.

Dr. Krishna Prasad stressed the importance of using flexible approach in preparing the modules.

Nazir Mirzaev, leader of IWRM block gave an example of differences between IWRM in Central Asian states due to existence of rayvodkhoz (RWMA) in the Kyrgyz Republic, Tajikistan, partly in Kazakhstan and absence in Uzbekistan. The rayvodkhoz activities contradict to hydrographic approach. Concerning dissemination of IWRM, Mr. Mirzaev adhered to the opinion that one should use top down approach, i.e. training of trainers who in turn will train representatives of the lower level.

Abdukhakim Sattorov (Tajikistan) made a presentation on "Prospects of IWRM Development in Tajikistan", which highlighted water situation in the country, an action plan for IWRM implementation, including financial, economic and organizational measures, as well as the organization of national training.

Dr Krishna Prasad gave an opinion that while organizing the training it is necessary to pay attention to the followings:

- evaluation of training and specialists who have completed the training;
- issuance of certificates that will be universally recognized in water sector;
- recognition of training courses.

Durdy Ataev presented his vision of organizing a national workshop on IWRM block in Turkmenistan.

The presentation by Vokhidjon Akhmadjonov (Uzbekistan) analyzed in detail the contents of IWRM block and introduced themes to be added:

- stages of extension of socio-economic aspects of IWRM;
- legal basis of water users' participation in water management process;
- water quality management.

Moreover, Mr. Akhmadjonov shared his experience in organizing trainings (consisting of three consecutive stages) in Uzbekistan that can be used in organizing national training under this programme. In February 2011 the Cabinet of Ministers released a special protocol, according to which the Ministry of Agriculture and Water Resources of Uzbekistan together with HEIs and research institutes conducts on-site training. This process is divided into three stages. The first stage includes the training of BISA, ISA and oblast specialists. The presentation topics are related primarily to issues of water saving, water management and irrigation water use. At the second stage, these trainers train college teachers. In stage three college teachers train representatives of farms.

Presentations on IIA block

Prof. Almas Tleukulov, Kazakh National Agrarian University represented IIA block with a presentation on "Scientific methods of improving irrigated agriculture and measures for increasing the productivity of irrigated lands". Mr. Tleukulov also mentioned that since 2005 Kazakh National Agrarian University has been preparing water professionals, whereas since 2010 offering PhD courses and assured that both Kazakh National Agrarian University and Kazakh National Technical University named after K. Satpaev have all the necessary conditions for organizing national training.

Elena Drugaleva, Head of Department of Land Reclamation and Water Management, Kyrgyz National Agricultural University said that it is necessary to

shorten the training material, process it for delivery to the audience in a competent manner and prepare the final work upon the training completion and issuance of certificates. Meanwhile, Bekboeva Roza noted the importance of selection of teaching methods, which should vary depending on the audience.

Ilkhom Ikromov, Assistant for Hydraulic Engineering Department, Tajik Agrarian University briefed the audience with the proposals to combine the topics 1 and 2 of module 1 in IIA block and rename as "Current state and development of irrigated agriculture, and their features depending on climatic conditions", as well as to add topic 1.2 "Meliorative condition of irrigated lands, causes of deterioration and ways of improvement".

Abdulkhakim Salokhiddinov, Pro-rector for Research, Head of Water Management and Ecology Department, Tashkent Irrigation and Melioration Institute (TIMI) and Murodov Rustam, PhD candidate, Agricultural Reclamation Department, TIMI highly appreciated the initiative for involvement of HEIs in the training project for water professionals and proposed to integrate the prepared materials in TIIM curriculum.

Nazir Mirzaev supported the opinion of HEI representatives of the Kyrgyz Republic on the importance of assessing students by testing or using other assessment methods, as well as shortening the training material and establishing efficient delivery mechanism. With respect to establishing a regional training center at the suggestion of Mr. Joop de Schutter, Mr. Mirzaev considered it appropriate to improve the existing training centers.

Abdubaly Kadyrbekov in his presentation gave a vision of the organization of training on IIA block at the national level in the Kyrgyz Republic. Mr. Kadyrbekov presented target groups and content of the block. Moreover, it is planned to attract other experts to conduct training at the oblast and rayon levels. Yusup Rysbekov and Mikhail Horst supported this idea, since one person cannot be expert in all topics. Dr. Krishna Prasad said that national trainers should conduct trainings.

Daler Kholmatov (Tajikistan) made a presentation on "Organization of a workshop at the national level" and showed the target groups, contents of IIA block, duration of training, venue, as well as provisional budget. During the discussion, the question was raised about the trainers' remuneration. Durdy Ataev spoke about the contents of IIA block, while Djalol Masharipov presented target groups and contents of the block for the national training.

Mikhail Horst, leader of IIA block highlighted good job of the representatives of Turkmenistan to provide feedback on training materials. Mr. Horst also expressed his opinion concerning heads of WUAs, who do not have enough experience, which is indicated as one of the eligibility requirements to participate in the training by the majority of national trainers.

According to Eelena Drugaleva it is necessary to have a differentiated approach for different levels, use interactive teaching methods and assignments to groups. Ms. Drugaleva noted that to obtain efficient results from a 5 day course it is necessary to shorten the amount of training material, for example by combining certain modules and topics. Moreover, there should be a baseline control of knowledge in the form of tests, assignments, interactive methods. Some modules contain a large amount of

reading material, including the one taught at HEIs, so it is required to revise the material and select the one that has more practical applications. She further added that it is advisable to divide the entire material by levels (e.g. arrange topics by levels).

Roza Bekboeva considered it necessary to provide feedback, conduct quizzes, pay special attention to the delivery method and extensively use the resource base of HEIs, 4 research institutes and GIS Center.

Prof. Rakhmonkul Rakhmatilloev, Department of Irrigation and Drainage Systems Operation, Tajik Agrarian University also supported the view on the presentation of training materials in a comprehensive manner and their usefulness not only for training of specialists, but also for training future specialists in HEIs.

Abdulkhakim Salokhiddinov also mentioned the need for using training materials in the curriculums of HEIs. According to Mikhail Horst, the material should be available for the low level and translated into national languages, whereas Yusup Rysbekov emphasized the role of educational methods in the organization of training.

Presentations on IWLP block

Ekaterina Sakhvaeva made a presentation on “Vision of the Kyrgyz Republic on training of trainers and conducting national training workshops”. The participants were familiarized with the training course programme and target groups. Ms. Sakhvaeva made a proposal to develop a glossary provided by Yusup Rysbekov in the block content if required, and invited Yusup Rysbekov to participate as a trainer in the national workshop of the Kyrgyz Republic. According to Ekaterina Sakhvaeva IWLP and RCTR blocks should combined.

Subkhonkul Davlatov in his speech on IWLP block said that to conduct national training in Tajikistan it would be necessary to keep all the modules provided by Yusup Rysbekov, except those that were impossible to adjust to the local conditions.

In his presentation Durdy Ataev showed the contents of IWLP block, although, he did not make any proposals and recommendations on the training material. In turn, Djalol Masharipov described the importance of this area in Uzbekistan, identified the target group, the rayons where experts would be invited from and a preliminary budget.

Summing up the presentations on IWLP block, Yusuf Rysbekov suggested that the leaders of 4 blocks had to make a brief presentation, which would indicate the right direction for national trainers in the organization of training.

Dr. Krishna Prasad stressed the importance of identifying learning objectives that define the content and priorities.

According to Roza Bekboeva training material developed under this project will be useful for HEIs as well, so it would be advisable to introduce IWLP course into their curriculums. To fulfill the objective basic methodological material needs to be published. Moreover, it was noted that there are courses to prepare lawyers in different areas, but none of the Central Asian countries prepare specialists in the field of international water law.

Rakhmonkul Rakhmatilloev supported the ideas of translating the training materials into local languages and involving teachers for a mutually beneficial exchange.

Rustam Murodov suggested that before the training, students must provide their vision of training in order to compare them with the results of training upon its completion. He also noted about importance of involving experts from the Academy of Sciences of Uzbekistan.

Presentations on RCTR block

From Kazakhstan Nariman Kipshakbayev presented the RCTR block. He underlined the importance of developing Water Doctrine of CA.

From Kyrgyzstan Ekaterina Sakhvaeva presented the content of RCTR. Given that almost all rivers in Kyrgyzstan are transboundary, this block is of paramount importance for them. Commissions have been created on the joint management of transboundary rivers: Chu – Talas Commission, commissions on Kyrgyz-Tajik, Kyrgyz-Uzbek water issues. At the same time, it is planned to establish the Interstate Basin Council.

Anatoly Sorokin, leader of the Block RCTR reminded participants of the ASBmm model, which allows to create different scenarios of water situation in the Aral Sea using mathematical tool. The model has not completed yet, in 2011 popular version will be available on-line.

Rakhmonkul Rahmatilloev stressed the importance of creating awareness, which necessitates studying the experience of cooperation within ICWC, developing the idea of bilateral and multilateral cooperation. Shaping public opinion, according to Anatoly Sorokin, is no less important factor, in this regard the activities of the regional database CAREWIB plays a crusial role.

From Turkmenitsana Durdy Atayev presented the content of block RCTR.

Anatoly Sorokin argued that Block RCTR acquires special importance due to the fact that Afghanistan is planning to irrigate about 1 million ha and construct the reservoir.

Nariman Kipshakbayev proposed to involve students in the process of solving regional issues through their participation in conferences and forums dedicated to discussion of regional cooperation in transboundary rivers management. It is important to ensure involvement of the future water leaders in addressing issues of regional cooperation.

Elena Drugaleva supported the idea of engaging students, and also proposed to create a student forum where one can exchange views and experiences.

Rakhmonkul Rakhmatilloev expanded scope of student forum to the regional one.

In the end of the workshop, Mr. Joop de Schutter made a presentation on “Water Resources Management, Water Infrastructure Management and Environmental Management Capacity Building Network Development in Central Asia. Future Development
Institutional Requirements”. Objectives of the network:

- To support the development of the Knowledge Network and Knowledge Base in the field of Water Resources, Water Infrastructure and Environmental Management in addressing the human resources and institutional capacity building needs at regional, national and local levels;
- To develop and strengthen a decentralized Training Capacity and Delivery System in Water Resources, Water Infrastructure and Environmental Management including a.o. the following main subjects:
    1. Integrate Water Resources Management (IWRM);
    2. Improvement of Irrigated Agriculture (IIA);
    3. International Water Law and Policy (IWLP);
    4. Regional Cooperation in Transboundary River Basins (RCTR).
- To develop and deliver demand oriented course programs and related modules by trained academic and professional staff of the participating knowledge centres for specific target groups at various (high, secondary and local) levels in different formats (diploma courses, workshops, role plays, certificate courses, field instructions, etc.) and using different education and training formats and technologies such as specialized manuals, guidelines, blended learning approaches, e-Learning, etc

Short Term Actions:

- Finalize training course material; Adjust training material per country; Organize national training workshops (can the trainings really be shared on different levels> this requires much more work); Who will actually do it? Organize feedback on results.
- Agree to the objectives for the network; formulate rules, rights and obligations for partnership; finish partnership list (SIC-ICWC, BVO's, Universities, Specialized Institutions); Organize coordination and participation; Include Afghanistan.
- Formulate project proposal(s) for continued network activities for capacity development in the field of water resources, water infrastructure and environmental management and obtain (international) funding.
- Further develop network knowledge and capacity sharing through the formation of communities of practice (CoP's) around specific topics. Engage professionals.
- Development of a marketing strategy; development of a business and strategic plan for the network in order to secure sustainability.
- Establish special website of the capacity development network including the knowledge map and the many various products related to capacity development.

As well as involvement of colleges, institutes and all stakeholders.

Mr. Umarov concluded the regional workshop. Responding to the questions during the workshop, Mr. Umarov highlighted the following points:

- optimum number of participants in the national workshops is 20 people;
- financing of national workshops no more than envisaged by the project;

- training of professional trainers ready to work in all four areas with specialization in blocks 1 and 2, and blocks 3 and 4;
- (trainer) agree with the proposal of organizing capacity building training courses aimed at public speaking, psychology and ethics;
- the main thing is to recognize that training is needed, above all for Central Asian countries and seek support for this understanding in own country;
- ensure the availability of training material; it must be comprehensible for each target audience;
- clearly define the learning objectives, as results of the ongoing training depend on them;
- provide for remuneration of national trainers; it is possible, but within own budgets;
- translation of training material into local languages can be done at own expense;
- flexibility in preparation of modules allows trainers to adjust contents of courses depending on local conditions and intended audience;
- ensure recognition of certificates upon completion of these training courses and increase their value to the level of diplomas.

All participants have positively assessed the idea of involving representatives of HEIs to the Joint Programme. Nevertheless, the main objective of the workshop was not achieved, since national trainers (except Tajikistan) could not fully demonstrate their readiness for conducting a national training due to the followings:

- change of trainers (during 3 regional workshops);
- lack of national plans for holding professional development courses, adjusted to local conditions;
- lack of training material with content adjusted per country;
- lack of specifically developed teaching methods and assessment for each level.

In connection with abovementioned, IHE UNESCO and SIC ICWC can not give consent to the allocation of funds for national training before addressing these shortcomings. For organization of follow-up activities national teams should:

- appoint senior officials for arranging all the necessary work for organization of training;
- prepare organizational arrangements that demonstrate staff training plan for selected areas, readiness of staff- trainers and training material adjusted to national conditions;
- in determining trainers take into account engagement of University staff, especially those participated in the regional trainings, especially as some of them (teachers of Kyrgyz, Tajik and Uzbek universities) have shown high potential and willingness to participate in this project.

In provision of educational material and after its approval for the national training, financial support will be provided for continuing improvement of training material and conducting research in support of development of regional capacity building program. Taking into account the need for professional approaches for building capacity of

water resources management in Central Asia, and achieving project objectives, it is important to establish cooperation at all levels and among all water management organizations.

The workshop finished its work, reserving the right to the national teams to continue its efforts to develop proposals for organization of national workshops for training future trainers and establishing continuing training system for water management specialists.

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