Interstate **C**ommission for **W**ater **C**oordination in Central Asia	**BULLETIN № 1 (67)**	May 2015

CONTENTS

MINUTES OF THE 66TH MEETING OF THE INTERSTATE COMMISSION FOR WATER COORDINATION (ICWC) OF THE REPUBLIC OF KAZAKHSTAN, KYRGYZ REPUBLIC, REPUBLIC OF TAJIKISTAN, TURKMENISTAN, AND THE REPUBLIC OF UZBEKISTAN

April 4, 2015 Ashgabad city

Chairman:

Taganov Seyitmurat Eiyamberdievich	Minister of Water Resources, Turkmenistan

ICWC members:

Nysambaev Yerlan Nuraliyevich	Vice-Minister of Agriculture, Republic of Kazakhstan
Rakhimzoda Sulton Nurmakhmadpur	First Deputy Minister of Energy and Water Resources, Republic of Tajikistan (MEWR RT)
Khamraev Shavkat Rakhimovich	Acting Chairman of EC IFAS, Deputy Minister, Head of Central Water Resources Administration, Ministry of Agriculture and Water Resources, Republic of Uzbekistan (MAWR RUz)

ICWC executive bodies:

Dukhovny Viktor Abramovich	Director of SIC ICWC
Babadjanova Malika Pulatovna	Head of ICWC Secretariat
Kholkhuzhaev Odil Akhmedovich	Acting Head of BWO Syrdarya
Makhramov Makhmud Yakhshibaevitch	Acting Head of BWO Amudarya

Invited:

Karlykhanov Adilkhan Karlykhanovich	Head of the Aral-Syrdarya BWI, Committee for Water Resources, Ministry of Environment and Water Resources of the Republic of Kazakhstan
Zhienbaev Musilim Rysmakhanovich	Head of Division, Ministry of Agriculture, Republic of Kazakhstan
Bekmaganbetov Serik Abdrakhmanovich	Advisor to Pan-Asian Cooperation Department, Ministry of Foreign Affairs, Republic of Kazakhstan
Abdrakhmanov Nurlan Aseyinovich	Advisor to the Embassy of the Republic of Kyrgyzstan in Turkmenistan
Egenov Meyerbek Duysenbaevich	Director of South Kazakh branch of RSE “Kazvodkhoz”
Ospanov Medet Ospanovich	Director, Executive Direction of IFAS in the Republic of Kazakhstan
Gyrlov Niyamukhamet Mavlyamovich	Deputy Minister of Water Resources, Turkmenistan
Paschyev Yanov Durdyevich	Head of Operations Administration, Ministry of Water Resources of Turkmenistan
Redjepov Arslan Kurbanmammedovich	Head of International Water Cooperation Department, Operations Administration , Ministry of Water Resources of Turkmenistan
Kuchkarov Sharifzhon Zikrillaevich	Head of Water Balance and Advanced Water Saving Technologies Division, MAWR of the Republic of Uzbekistan
Beglov Iskander Ferdinandovich	Head of Information division, SIC ICWC
Bayalimov Dauletyar	Representative of the Republic of Kazakhstan at IFAS
Kazakov Mavlon Akmuradov	Representative of the Republic of Tajikistan at IFAS
Mukhammetmeret	Representative of Turkmenistan at IFAS

Khaytlievich

Talipov Shukhrat Representative of the Republic of Uzbekistan at IFAS

Agenda

Ashkhabad, April 4, 2015

1. The results of the non-growing season 2014-2015.
2. Consideration and approval of water withdrawal quotas and operation regimes of the reservoir cascade for the next growing season 2015 in the Amudarya and Syrdarya River Basins.
3. Consideration of proposals and comments received in the course of interdepartmental approval at national level of the draft Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan on the Information and Analytical Support of Water Management, Use, and Protection in the Aral Sea Basin and the Arrangement of Interstate Exchange of Information.
4. Progress report of BWO Amudarya.
5. Agenda and venue of the next 67th ICWC meeting

Decision on the first item:

1. Take note of the information of BWO Amudarya and BWO Syrdarya about fulfillment of water quotas and operation of the reservoir cascade during the non-growing season 2014-2015 in the Amudarya and Syrdarya River Basins.

Decisions on the second item:

1. Approve the forecast operation schedule of the reservoir cascade and national quotas of water withdrawals in the Amudarya and Syrdarya River Basins for the growing season 2015, as amended (Annex 1 – forecast operation schedule for the Amudarya River Basin)

2. Take note of the forecast operation schedule-regime of the reservoir cascade (four options) and national quotas of water withdrawal in the Syrdarya River Basin for the growing season 2015.

3. BWO Surdarya should make appropriate corrections in forecast operation schedule of reservoir cascade and national quotas of water withdrawal in the Syrdarya River Basin, taking into account current situation, and submit them to ICWC members for approval till the end of May 2015.

Decisions on the third item:

1. Take note of the information of the Parties about the results of interdepartmental approval at the national level of the draft Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan on the Information and Analytical Support of Water Management, Use, and Protection in the Aral Sea Basin and the Arrangement of Interstate Exchange of Information.

2. Request the ICWC members to speed up consideration of the draft Agreement and to present proposals and comments on the document by the next ICWC meeting.

Decisions on the forth item:

1. Take note of the progress report on activity of BWO Amudarya.

2. Charge BWO Amudarya with examining and providing data on water losses in the Amudarya River Basin to the ICWC members.

Decisions on the fifth item:

1. Propose the Kyrgyz party holding the regular 67th ICWC meeting in the Kyrgyz Republic in the first ten-days of July, 2015.

2. Agree upon the date for ICWC meeting with the Kyrgyz party in the regular course of business.

3. Agree upon the agenda of the regular 67th ICWC meeting.

Agenda of the regular 67th ICWC meeting

1. Fulfillment of water withdrawals quotas and operation regimes of the reservoir cascades in the Amudarya and Syrdarya River Basins over the growing season 2015.

2. Presentation of proposals and comments received in the course of interdepartmental approval at the national level of the draft Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan on the Information and Analytical Support of Water Management, Use, and Protection in the Aral Sea Basin and the Arrangement of Interstate Exchange of Information

3. Consideration of the GIZ Project Concept "Promoting enhancement of regional water cooperation in Central Asia by building capacities of BWO Amydarya, BWO Syrdarya and their divisions".

4. Agenda and venue of the next 68th ICWC meeting

Republic of Kazakhstan	**Ye.N. Nysanbaev**
Kyrgyz Republic	**K. Zh. Tashtanaliev**
Republic of Tajikistan	**S.N. Rakhimzoda**
Turkmenistan	**S.E. Taganov**
Republic of Uzbekistan	**Sh.R. Khamraev**

Annex 1

Forecast operation regime of the Nurek reservoir (April 2015 to September 2015)

Mm^3

Nurek reservoir	Unit	Forecast						Total
		April	May	June	July	August	September	
Volume: Beginning of the period	Mm^3	6,643	6,773	7,308	8,345	10,006	10,499	6,643
Inflow to the reservoir	m^3/s	533	903	1,250	1,570	1,200	701	
	Mm^3	1,382	2,419	3,240	4,205	3,214	1,817	16,276
Water releases from the reservoir	m^3/s	483	703	850	950	1,016	701	
	Mm^3	1,252	1,883	2,203	2,544	2,721	1,817	12,421
Volume: End of the period	Mm^3	6,773	7,308	8,345	10,006	10,499	10,499	10,499
Accumulation (+), drawdown (-)	Mm^3	130	536	1,037	1,661	493	0	3,856

Forecast operation regime of the Tuyamuyun reservoir (April 2015 to September 2015)

Mm^3

Tuyamuyun reservoir	Unit	Forecast						Total
		April	May	June	July	August	September	
Volume: Beginning of the period	Mm^3	3,138	2,697	3,404	4,319	4,625	3,658	3,138
Inflow to the reservoir	m^3/s	580	1,136	1,570	1,945	1,334	754	
	Mm^3	1,503	3,043	4,069	5,209	3,573	1,954	19,352
Water releases from the reservoir	m^3/s	750	872	1,217	1,831	1,695	855	
	Mm^3	1,944	2,336	3,154	4,904	4,540	2,216	19,094
Volume: End of the period	Mm^3	2,697	3,404	4,319	4,625	3,658	3,396	3,396
Accumulation (+), drawdown (-)	Mm^3	-441	707	915	305	-967	-262	258

Annex 2

FORECAST OPERATION SCHEDULE OPTION 1

of the Naryn-Syrdarya reservoir cascade

with additional releases from upper reservoirs to overcome water deficit

from April 1, 2015 to September 30,2015

(Quota - 100%)

Toktogul reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**360.00**	**736.00**	**1010.00**	**770.00**	**578.00**	**300.00**	
	Mm³	933.12	1971.30	2617.92	2062.37	1548.12	777.60	**9910.43**
Volume: beginning of the period	*Mm³*	***6428.00***	***6502.68***	***7795.54***	***9731.09***	***10823.66***	***11618.40***	
end of the period	*Mm³*	***6502.68***	***7795.54***	***9731.09***	***10823.66***	***11618.40***	***11743.08***	
Release from the reservoir	*m³/sec*	**330.00**	**252.00**	**262.00**	**358.00**	**275.26**	**245.00**	
(with additional releases)	*Mm³*	855.36	674.96	679.10	958.87	737.25	635.04	**4540.58**
Kayrakkum reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**508.88**	**430.34**	**303.03**	**350.48**	**300.28**	**345.67**	
	Mm³	1319.01	1152.62	785.46	938.71	804.28	895.98	**5896.06**
Volume: beginning of the period	*Mm³*	***3429.00***	***3418.21***	***3418.06***	***2760.22***	***2055.00***	***1513.20***	
end of the period	*Mm³*	***3418.21***	***3418.06***	***2760.22***	***2055.00***	***1513.20***	***1687.74***	
Release from the reservoir	*m³/sec*	**515.67**	**401.16**	**500.00**	**550.00**	**450.00**	**250.00**	
	Mm³	1336.61	1074.47	1296.00	1473.12	1205.28	648.00	**7033.48**
Shardara reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**461.66**	**309.96**	**207.55**	**190.28**	**160.96**	**318.09**	
	Mm³	1196.61	830.19	537.97	509.64	431.11	824.49	**4330.02**
Volume: beginning of the period	*Mm³*	***3946.00***	***4066.93***	***3678.45***	***2938.57***	***1975.09***	***1200.83***	
end of the period	*Mm³*	***4066.93***	***3678.45***	***2938.57***	***1975.09***	***1200.83***	***1398.06***	
Release from the reservoir	*m³/sec*	**380.00**	**320.00**	**330.00**	**380.00**	**340.03**	**200.00**	
	Mm³	984.96	857.09	855.36	1017.79	910.74	518.40	**5144.34**
Release to the Kzylkum	*m³/sec*	20.00	100.00	110.00	110.00	90.00	25.00	
canal	*Mm³*	51.84	267.84	285.12	294.62	241.06	64.80	**1205.28**
Discharge into the Arnasay	*m³/sec*	0.00	0.00	0.00	0.00	0.00	0.00	
depression	*Mm³*	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**

Water supply to the Aral Sea	m^3/sec	**157.40**	**153.81**	**156.90**	**155.51**	**153.03**	**156.50**	
	Mm^3	407.99	411.96	406.68	416.51	409.88	405.65	**2458.67**
Charvak reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm^3*
Inflow to the reservoir	m^3/sec	**246.10**	**442.90**	**573.70**	**424.60**	**235.80**	**146.90**	
(total of the 4 rivers)	Mm^3	637.89	1186.26	1487.03	1137.25	631.57	380.76	**5460.77**
Volume: beginning of the period	Mm^3	***590.00***	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	
end of the period	Mm^3	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	***1495.33***	
Release from the reservoir	m^3/sec	**150.00**	**267.10**	**380.00**	**420.00**	**320.00**	**180.00**	
(release from the Gazalkent HEPS)	Mm^3	388.80	715.39	984.96	1124.93	857.09	466.56	**4537.73**
Andizhan reservoir		*Апрель*	*May*	*June*	*July*	*August*	*September*	*Total,Mm^3*
Inflow to the reservoir	m^3/sec	**170.80**	**305.40**	**329.20**	**217.40**	**106.60**	70.40	
	Mm^3	442.71	817.98	853.29	582.28	285.52	182.48	**3164.26**
Volume: beginning of the period	Mm^3	***952.00***	***1134.58***	***1576.62***	***1910.58***	***1421.45***	***890.00***	
end of the period	Mm^3	***1134.58***	***1576.62***	***1910.58***	***1421.45***	***890.00***	***888.39***	
Release from the reservoir	m^3/sec	**100.00**	**140.00**	**200.00**	**399.00**	**304.00**	**70.00**	
(with additional releases)	Mm^3	259.20	374.98	518.40	1068.68	814.23	181.44	**3216.93**

FORECAST OPERATION SCHEDULE OPTION 2

of the Naryn-Syrdarya reservoir cascade

with additional releases from upper reservoirs to overcome water deficit

from April 1, 2015 to September 30,2015

(Quota - 100%)

Toktogul reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**360.00**	**736.00**	**1010.00**	**770.00**	**578.00**	**300.00**	
	Mm³	933.12	1971.30	2617.92	2062.37	1548.12	777.60	**9910.43**
Volume: beginning of the period	*Mm³*	***6428.00***	***6502.68***	***7795.54***	***9653.33***	***10799.47***	***11594.21***	
end of the period	*Mm³*	***6502.68***	***7795.54***	***9653.33***	***10799.47***	***11594.21***	***11718.89***	
Release from the reservoir	*m³/sec*	**330.00**	**252.00**	**292.00**	**338.00**	**275.26**	**245.00**	
(with additional releases)	*Mm³*	855.36	674.96	756.86	905.30	737.25	635.04	**4564.77**
Kayrakkum reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**508.88**	**430.34**	**333.03**	**331.48**	**306.28**	**345.67**	
	Mm³	1319.01	1152.62	863.22	887.82	820.35	895.98	**5939.00**
Volume: beginning of the period	*Mm³*	***3429.00***	***3418.21***	***3408.04***	***2931.64***	***2095.18***	***1612.67***	
end of the period	*Mm³*	***3418.21***	***3408.04***	***2931.64***	***2095.18***	***1612.67***	***1787.20***	
Release from the reservoir	*m³/sec*	**515.67**	**404.90**	**460.00**	**580.00**	**433.86**	**250.00**	
	Mm³	1336.61	1084.49	1192.32	1553.47	1162.06	648.00	**6976.96**
Shardara reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**461.66**	**313.70**	**207.55**	**190.28**	**144.82**	**318.09**	
	Mm³	1196.61	840.21	537.97	509.64	387.89	824.49	**4296.82**
Volume: beginning of the period	*Mm³*	***3946.00***	***4066.93***	***3688.48***	***2948.59***	***1985.11***	***1167.64***	
end of the period	*Mm³*	***4066.93***	***3688.48***	***2948.59***	***1985.11***	***1167.64***	***1364.86***	
Release from the reservoir	*m³/sec*	**380.00**	**320.00**	**330.00**	**380.00**	**340.03**	**200.00**	
	Mm³	984.96	857.09	855.36	1017.79	910.74	518.40	**5144.34**
Release to the Kzylkum	*m³/sec*	20.00	100.00	110.00	110.00	90.00	25.00	
canal	*Mm³*	51.84	267.84	285.12	294.62	241.06	64.80	**1205.28**
Release to the Arnasay	*m³/sec*	0.00	0.00	0.00	0.00	0.00	0.00	
depression	*Mm³*	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**

Water supply to the Aral Sea	*m^3/sec*	**157.40**	**153.81**	**156.90**	**155.51**	**153.03**	**156.50**	
	Mm^3	407.99	411.96	406.68	416.51	409.88	405.65	**2458.67**
Charvak reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm^3*
Inflow to the reservoir	*m^3/sec*	**246.10**	**442.90**	**573.70**	**424.60**	**235.80**	**146.90**	
(total of the 4 rivers)	*Mm^3*	637.89	1186.26	1487.03	1137.25	631.57	380.76	**5460.77**
Volume: beginning of the period	*Mm^3*	***590.00***	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	
end of the period	*Mm^3*	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	***1495.33***	
Release from the reservoir	*m^3/sec*	**150.00**	**267.10**	**380.00**	**420.00**	**320.00**	**180.00**	
(release from the Gazalkent HEPS)	*Mm^3*	388.80	715.39	984.96	1124.93	857.09	466.56	**4537.73**
Andizhan reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm^3*
Inflow to the reservoir	*m^3/sec*	**170.80**	**305.40**	**329.20**	**217.40**	**106.60**	70.40	
	Mm^3	442.71	817.98	853.29	582.28	285.52	182.48	**3164.26**
Volume: beginning of the period	*Mm^3*	***952.00***	***1134.58***	***1576.62***	***1910.58***	***1418.77***	***871.25***	
end of the period	*Mm^3*	***1134.58***	***1576.62***	***1910.58***	***1418.77***	***871.25***	***869.64***	
Release from the reservoir	*Mm^3*	**100.00**	**140.00**	**200.00**	**400.00**	**310.00**	**70.00**	
(with additional releases)	*Mm^3*	259.20	374.98	518.40	1071.36	830.30	181.44	**3235.68**

FORECAST OPERATION SCHEDULE OPTION 3

of the Naryn-Syrdarya reservoir

cascade

with additional releases from upper reservoirs to overcome water deficit

from April 1, 2015 to September 30,2015

(Quota - 100%)

Toktogul reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm^3*
Inflow to the reservoir	*m^3/sec*	**360.00**	**736.00**	**1010.00**	**770.00**	**578.00**	**300.00**	
	Mm^3	933.12	1971.30	2617.92	2062.37	1548.12	777.60	**9910.43**
Volume: beginning of the period	*Mm^3*	***6428.00***	***6502.68***	***7795.54***	***9769.97***	***10916.11***	***11697.89***	
end of the period	*Mm^3*	***6502.68***	***7795.54***	***9769.97***	***10916.11***	***11697.89***	***11822.57***	
Release from the reservoir	*m^3/sec*	**330.00**	**252.00**	**247.00**	**338.00**	**280.10**	**245.00**	
(with additional releases)	*Mm^3*	855.36	674.96	640.22	905.30	750.21	635.04	**4461.09**
Kayrakkum reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm^3*
Inflow to the reservoir	*m^3/sec*	**508.88**	**430.34**	**303.03**	**301.48**	**290.48**	**345.67**	
	Mm^3	1319.01	1152.62	785.46	807.47	778.01	895.98	**5738.55**
Volume: beginning of the period	*Mm^3*	***3429.00***	***3418.21***	***3408.04***	***2879.80***	***2177.26***	***1716.33***	
end of the period	*Mm^3*	***3418.21***	***3408.04***	***2879.80***	***2177.26***	***1716.33***	***1890.87***	
Release from the reservoir	*m^3/sec*	**515.67**	**404.90**	**450.00**	**500.00**	**410.00**	**250.00**	
	Mm^3	1336.61	1084.49	1166.40	1339.20	1098.14	648.00	**6672.84**
Shardara reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm^3*
Inflow to the reservoir	*m^3/sec*	**461.66**	**313.70**	**207.55**	**190.28**	**157.65**	**318.09**	
	Mm^3	1196.61	840.21	537.97	509.64	422.25	824.49	**4331.18**
Volume: beginning of the period	*Mm^3*	***3946.00***	***4066.93***	***3688.48***	***2948.59***	***1985.11***	***1202.00***	
end of the period	*Mm^3*	***4066.93***	***3688.48***	***2948.59***	***1985.11***	***1202.00***	***1399.22***	
Release from the reservoir	*m^3/sec*	**380.00**	**320.00**	**330.00**	**380.00**	**340.03**	**200.00**	
	Mm^3	984.96	857.09	855.36	1017.79	910.74	518.40	**5144.34**
Release to the Kzylkum canal	*m^3/sec*	20.00	100.00	110.00	110.00	90.00	25.00	
	Mm^3	51.84	267.84	285.12	294.62	241.06	64.80	**1205.28**
Release to the Arnasay	*m^3/sec*	0.00	0.00	0.00	0.00	0.00	0.00	
depression	*Mm^3*	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Water supply to the Aral Sea	*m^3/se*	**157.40**	**153.81**	**156.90**	**155.51**	**153.03**	**156.50**	

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	Mm³	407.99	411.96	406.68	416.51	409.88	405.65	**2458.67**
Charvak reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm³*
Inflow to the reservoir	*m³/sec*	**246.10**	**442.90**	**573.70**	**424.60**	**235.80**	**146.90**	
(total of the 4 rivers)	*Mm³*	637.89	1186.26	1487.03	1137.25	631.57	380.76	**5460.77**
Volume: beginning of the period	*Mm³*	***590.00***	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	
end of the period	*Mm³*	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	***1495.33***	
Release from the reservoir	*m³/sec*	**150.00**	**267.10**	**380.00**	**420.00**	**320.00**	**180.00**	
(release from the Gazalkent HEPS)	*Mm³*	388.80	715.39	984.96	1124.93	857.09	466.56	**4537.73**
Andizhan reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm³*
Inflow to the reservoir	*m³/sec*	**170.80**	**305.40**	**329.20**	**217.40**	**106.60**	70.40	
	Mm³	442.71	817.98	853.29	582.28	285.52	182.48	**3164.26**
Volume: beginning of the period	*Mm³*	***952.00***	***1134.58***	***1576.62***	***1871.70***	***1460.24***	***966.29***	
end of the period	*Mm³*	***1134.58***	***1576.62***	***1871.70***	***1460.24***	***966.29***	***964.68***	
Release from the reservoir	*m³/sec*	**100.00**	**140.00**	**215.00**	**370.00**	**290.00**	**70.00**	
(with additional releases)	*Mm³*	259.20	374.98	557.28	991.01	776.74	181.44	**3140.64**

FORECAST OPERATION SCHEDULE OPTION 4

of the Naryn-Syrdarya reservoir cascade

with additional releases from upper reservoirs to overcome water deficit

from April 1, 2015 to September 30,2015

(Quota - 100%)

Toktogul reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,M m^3*
Inflow to the reservoir	*m^3/sec*	**360.00**	**736.00**	**1010.00**	**770.00**	**578.00**	**300.00**	
	Mm^3	933.12	1971.30	2617.92	2062.37	1548.12	777.60	**9910.43**
Volume: beginning of the period	*Mm^3*	***6428.00***	***6502.68***	***7795.54***	***9731.09***	***10823.66***	***11618.40***	
end of the period	*Mm^3*	***6502.68***	***7795.54***	***9731.09***	***10823.66***	***11618.40***	***11743.08***	
Release from the reservoir	*m^3/sec*	**330.00**	**252.00**	**262.00**	**358.00**	**275.26**	**245.00**	
(with additional releases)	*Mm^3*	855.36	674.96	679.10	958.87	737.25	635.04	**4540.58**
Kayrakkum reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,M m^3*
Inflow to the reservoir	*m^3/sec*	**508.88**	**430.34**	**303.03**	**350.48**	**300.28**	**345.67**	
	Mm^3	1319.01	1152.62	785.46	938.71	804.28	895.98	**5896.06**
Volume: beginning of the period	*Mm^3*	***3429.00***	***3418.21***	***3418.06***	***3123.88***	***2418.04***	***2013.73***	
end of the period	*Mm^3*	***3418.21***	***3418.06***	***3123.88***	***2418.04***	***2013.73***	***2188.26***	
Release from the reservoir	*m^3/sec*	**515.67**	**401.16**	**359.70**	**550.23**	**398.67**	**250.00**	
	Mm^3	1336.61	1074.47	932.34	1473.74	1067.80	648.00	**6532.95**
Shardara reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,M m^3*
Inflow to the reservoir	*m^3/sec*	**461.66**	**309.96**	**207.55**	**190.28**	**109.63**	**318.09**	
	Mm^3	1196.61	830.19	537.97	509.64	293.63	824.49	**4192.53**
Volume: beginning of the period	*Mm^3*	***3946.00***	***4066.93***	***3678.45***	***2938.57***	***1975.09***	***1063.35***	
end of the period	*Mm^3*	***4066.93***	***3678.45***	***2938.57***	***1975.09***	***1063.35***	***1260.57***	
Release from the reservoir	*m^3/sec*	**380.00**	**320.00**	**330.00**	**380.00**	**340.03**	**200.00**	
	Mm^3	984.96	857.09	855.36	1017.79	910.74	518.40	**5144.34**
Release to the Kzylkum	*m^3/sec*	20.00	100.00	110.00	110.00	90.00	25.00	
canal	*Mm^3*	51.84	267.84	285.12	294.62	241.06	64.80	**1205.28**
Release to the Arnasay	*m^3/sec*	0.00	0.00	0.00	0.00	0.00	0.00	
depression	*Mm^3*	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**

Water supply to the Aral Sea	m^3/sec	**157.40**	**153.81**	**156.90**	**155.51**	**153.03**	**156.50**	
	Mm^3	407.99	411.96	406.68	416.51	409.88	405.65	**2458.67**
Charvak reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm^3*
Inflow to the reservoir	m^3/sec	**246.10**	**442.90**	**573.70**	**424.60**	**235.80**	**146.90**	
(total of the 4 rivers)	Mm^3	637.89	1186.26	1487.03	1137.25	631.57	380.76	**5460.77**
Volume: beginning of the period	Mm^3	***590.00***	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	
end of the period	Mm^3	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	***1495.33***	
Release from the reservoir	m^3/sec	**150.00**	**267.10**	**380.00**	**420.00**	**320.00**	**180.00**	
(release from the Gazalkent HEPS)	Mm^3	388.80	715.39	984.96	1124.93	857.09	466.56	**4537.73**
Andizhan reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm^3*
Inflow to the reservoir	m^3/sec	**170.80**	**305.40**	**329.20**	**217.40**	**106.60**	70.40	
	Mm^3	442.71	817.98	853.29	582.28	285.52	182.48	**3164.26**
Volume: beginning of the period	Mm^3	***952.00***	***1134.58***	***1576.62***	***1910.58***	***1421.45***	***890.00***	
end of the period	Mm^3	***1134.58***	***1576.62***	***1910.58***	***1421.45***	***890.00***	***888.39***	
Release from the reservoir	m^3/sec	**100.00**	**140.00**	**200.00**	**399.00**	**304.00**	**70.00**	
(with additional releases)	Mm^3	259.20	374.98	518.40	1068.68	814.23	181.44	**3216.93**

THE RESULTS OF THE NON-GROWING SEASON 2014-2015 IN THE AMUDARYA AND SYRDARYA RIVER BASINS[1]

Amudarya River Basin

The actual water availability at the Atamurat gauging station upstream of Garagumdarya during the non-growing season was 99.0% of the norm. Given the norm 14,555 Mm^3, the actual value was 14,407 Mm^3. In the past season the water availability was 73.9%.

The use of approved quotas of water withdrawal during the non-growing season under review with a breakdown by Central Asian states is as follows:

Totally in the basin, 94.3% of the approved water withdrawal quota was used, while the quota was 15,701 Mm^3, the actually used volume was 14,800 Mm^3, including:

Republic of Tajikistan actually used 2,088.4 Mm^3 (73.2% of the quota)

Republic of Uzbekistan actually used 6,251.6 Mm^3 (98.5% of the quota)

Turkmenistan actually used 6,484.9 Mm^3 (99.8% of the quota)

Water user state	**Water quota** Mm^3	**Actual** Mm^3	**%%**
Republic of Tajikistan	2,851.3	2,088.4	73.2
Turkmenistan	6,500.0	6,484.9	99.8
Republic of Uzbekistan	6,350.0	6,251.6	98.5
Total	15,701.3	14,800.1	94.3

The preliminary estimates show that downstream of the Atamurat gauging station, which is upstream of Garagumdarya, 99.3% of the water withdrawal quota was used, including:

Republic of Uzbekistan actually used 5,913.4 Mm^3 (98.9% of the quota)

Turkmenistan actually used 6,484.9 Mm^3 (99.8% of the quota)

[1] Information on the first item of agenda of the 66th ICWC meeting

River reach Water user state	Water quota Mm^3	Actual Mm^3	%%
Downstream of the Atamurat gauging station	12,480.0	12,398.3	99.3
Turkmenistan	6,500.0	6,484.9	99.8
Republic of Uzbekistan	5,980.0	5,913.4	98.9

Actual use of the approved water withdrawal quotas broken down by river sections is as follows:

1. Upper reaches – 75.3%, of which 73.2 % - Republic of Tajikistan; 91.4% - Republic of Uzbekistan.

2. Middle reaches– 99.3%, of which 98.9 % - Republic of Uzbekistan; 99.8 % - Turkmenistan.

3. Lower reaches– 99.5%, of which 98.2 % - Republic of Uzbekistan; 102.1% - Turkmenistan.

River reach Water user state	Quota Mm^3	Actual Mm^3	%%
Upper reaches	**3,221.3**	**2,426.6**	**75.3**
Republic of Tajikistan	2,851.3	2,088.4	73.2
Republic of Uzbekistan	370.0	338.	91.4
Middle reaches	**8,345.0**	**8,283.1**	**99.3**
Turkmenistan	5,100.0	5,054.9	99.1
Republic of Uzbekistan	3,245.0	3,228.2	99.5
Lower reaches	**4,135.0**	**4,115.2**	**99.5**
Turkmenistan	1,400.0	1,430.0	102.1
Republic of Uzbekistan	2,735.0	2,685.2	98.2

The Prearalie and the Aral Sea were to receive 2,100 Mm^3, whereas, in fact, received 900 Mm^3 during non-growing season.

Inflow to the Nurek reservoir during non-growing season was to be 3,848 Mm^3 while, in fact, it was 3,820 Mm^3. It was planned to release 8,285 Mm^3 from the

reservoir, while actually 7,582 Mm^3 were released. By the end of the non-growing season 2014-2015, the water volume in the reservoir was to be 6,104 Mm^3, while it was 6,779 Mm^3 according to preliminary estimates.

The inflow to the Tuyamuyun reservoir during the non-growing season was planned to be 6,850 Mm^3, while, in fact, it was 7,526 Mm^3. It was planned to release 6,909 Mm^3 from the reservoir, and actually 7,696 Mm^3 were released.

By the end of non-growing season 2014-2015, the amount of water in the reservoir was to be 3,206 Mm^3. The actual water volume was 3,095 Mm^3.

Parameter		**Unit**	**Nurek reservoir**	**Tuyamuyun reservoir**
Volume: beginning of the period		Mm^3	10,541	3,265
Inflow to the reservoir	forecast	Mm^3	3,848	6,850
	Actual	Mm^3	3,820	7,526
		%%	99.3	109.9
Release from the reservoir	forecast	Mm^3	8,285	6,909
	actual	Mm^3	7,582	7,696
		%%	91.5	111.4
Volume: end of the period	forecast	Mm^3	6,104	3,206
	actual	Mm^3	6,779	3,095
		%%	111.1	96.5
Accumulation(+),drawdown (-)	forecast	Mm^3	-4,437	-59
	actual	Mm^3	-3,762	-170
		%%	84.8	288.6

It should be noted that water release from the Nurek reservoir was 91.5% out of the planned one. The inflow to the reservoir is to be 99.3% out of the forecast.

More detailed information is given in Tables 1.1-1.3.

Table 1.1

Analysis of the use of water withdrawal quotas during the non-growing season 2014-2015 in the Amudarya river Basin

Name	Water quotas for non-growing season 2014-2015 Mm^3	Actual used, Mm^3	%%
Upper-Amudarya Administration	**32,21.3**	**2,426.6**	**75.3**
(Upper reaches)			
Of which:			
Tajikistan	2,851.3	2,088.4	73.2
Uzbekistan	370	338.2	91.4
Water withdrawal from the Amudarya River			
at the Atamurat gauging station (Kerki)	**12,480**	**12,398.3**	**99.3**
Of which:			
Turkmenistan	6,500.0	6,484.9	99.8
Uzbekistan	5980,0	5913,4	98.9
Middle-Amudarya (Sredneamudarya) Administration	**8,345**	**8,283,1**	**99.3**
(Middle reaches) of which			
Turkmenistan	5,100	5,054.9	99.1
Uzbekistan	3,245	3,228,2	99.5
Lower reaches:	**4,135**	**4,115,2**	**99.5**
Of which:			
Turkmenistan	1,400.0	1,430.0	102.1
Uzbekistan	2,735.0	2,685.2	98,2
Besides, sanitary water realease , total	**800**	**861.8**	**107,7**
Of which Karakalpakstan	500	520.8	104,2
Dashoguz province	150	191	127.3
Khorezm province	150	150	100.0
Total for the basin:	**15,701.3**	**14,800.1**	**943**
Of which			
Tajikistan	2,851.3	2,088,4	73.2
Turkmenistan	6,500.0	6,484.9	99.8
Uzbekistan	6,350.0	6,251.6	98.5

Table 1.2

Actual operation regime of Nurek reservoir (from October 2014 to March 2015)

Nurek reservoir	Unit	October		November		December		January		February		March		Total		%%
		forecast	actual	forecast	actual	forecast	actual	forecast	actual	forecast	actual	forecast	actual	forecast	actual	
Volume: beginning of the period	Mm^3	10,541	10,541	10,479	10,419	9,944	9,929	9,021	9,205	7,951	8,411	6,911	7,633	10,541	10,541	
Inflow to the reservoir	m^3/sec	404	338	300	262	216	200	193	196	170	205	180	254			
	Mm^3	1,082	906	778	679	579	535	517	524	411	497	482	680	3,848	3,820	99.3
Release from the reservoir	m^3/sec	427	384	507	451	561	470	593	492	600	527	481	572			
	Mm^3	1,144	1,029	1,313	1,169	1,501	1,259	1587	1,318	1452	1,275	1,288	1,533	8285	7,582	91.5
Volume: end of the period	Mm^3	10,479	10,419	9,944	9,929	9,021	9,205	7,951	8,411	6,911	7,633	6,104	6,779	6,104	6,779	111.1
Accumulation(+),drawdown(-)	Mm^3	-62	-122	-535	-490	-923	-724	-1,070	-794	-1,040	-778	-807	-853	-4,437	-3,762	84,8

Actual operation regime of Tuyamuyun reservoir (from October 2014 to March 2015)

Tuyamuyun reservoir	Unit	October		November		December		January		February		March		Total		%%
		forecast	actual	forecast	actual	forecast	actual	forecast	actual	forecast	actual	forecast	actual	forecast	actual	
Volume: beginning of the period	Mm^3	3,265	3,265	3,072	3,132	3,544	3,815	4,051	3,839	4,703	3,983	4,341	4,118	3,265	3,265	
Inflow to the reservoir	m^3/sec	439	422	457	445	553	575	414	389	352	418	392	615			
	Mm^3	1,174	1,131	1,184	1,153	1,481	1,541	1,110	1,043	850	1,011	1,051	1,648	6,850	7,526	109.9
Release from the reservoir	m^3/sec	510	472	275	181	364	567	171	335	501	363	816	997			
	Mm^3	1,367	1,264	712	469	974	1,517	458	898	1,213	877	2,186	2,670	6,909	7,696	111.4
Volume: end of the period	Mm^3	3,072	3,132	3,544	3,815	4,051	3,839	4,703	3,983	4,341	4,118	3,206	3,095	3,206	3,095	96.5
Accumulation(+),drawdown(-)	Mm^3	-193	-133	472	683	507	24	652	144	-362	134	-1,135	-1,023	-59	-170	288.6

Table 1.3

Information
on water supply to the Aral Sea and the Amudarya River Delta during the non-growing 2014-2015, Mm3

Name	October		November		December		January		February		March		Water supply from 01.10.14 to 31.03.15		Performance
	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	actual	plan	факт	%%
From the Amudarya river, at the Samanbay gauging station	270	133	260	72	280	50	270	78	240	66	280	100	1600	499	31.2
Total discharge from system of the Kyzketken and Suenli canals	0	60	0	10	0	8	0	1	0	1	0	3	0	83	
Collector and drainage network	85	58	80	39	85	35	85	88	75	71	90	117	500	408	81.6
T O T A L:	355	251	340	121	365	93	355	167	315	138	370	220	2100	990	47,1
Cumulative Mm^3	355	251	695	372	1060	465	1415	632	1730	770	2100	990			

Note: the data on water supply to the Prearalie region are agreed with the State Hydrometeorological Service (Hydromet) of the Republic of Uzbekistan

Syrdarya River Basin

According to Hydromet's forecast for the non-growing season 2014-2015, which was received on September 27, 2014, and updated forecast for the 4th quarter, the inflow to the Toktogul reservoir was expected to be about 96% of the norm; to the Andijan reservoir – 85%, to the Charvak reservoir – 95%, and total lateral inflow – 91% of the norm.

The results of non-growing season are summarized as follows.

The normal inflow to upper reservoirs of the Naryn-Syrdarya cascade during the non-growing season is 5,051 Mm^3. According to Hydromet's forecast, this inflow was expected to be 4,734 Mm^3 (94% of the norm). Practically, upper reservoirs received 5,549 Mm^3 (117% of the norm) that is 815 Mm^3 more than the forecast (Table 2.1.)

The normal lateral inflow to the Syrdarya channel up to the Shardara reservoir is 10,994 Mm^3. According to Hydromet's forecast the lateral inflow was to be 10,053 Mm^3 (91% of the norm). The actual lateral inflow was 10,490 Mm^3 (104% of the forecast) that is 437 Mm^3 more than the forecast.

The total normal inflow to the basin during the non-growing season is 16,045 Mm^3. According to Hydromet's forecast the total inflow was expected to be 14,787 Mm^3 (92% of the norm). The actual inflow was 16,039 Mm^3 (108% of the norm). This is 1,252 Mm^3 more than the forecast.

According to the operation schedule of the Naryn-Syrdarya reservoir cascade approved by ICWC, releases from the Toktogul reservoir during the non-growing season were planned to be 6,510 Mm^3 of water. Practically, 8,335 Mm^3 of water were released and exceeded the plan by 1,825 Mm^3.

According to the operation schedule, releases from the Andijan reservoir were to be 517 Mm^3. In fact, 529 Mm^3 were released, or 12 Mm^3 more than planned.

According to the operation schedule, releases from the Charvak reservoir were to be 2,122 Mm^3. In fact, 2.457 Mm^3 were released, or 335 Mm^3 more than planned.

According to the operation schedule, releases from the Shardara reservoir were to be 6,532 Mm^3. In fact, 8,414 Mm^3 were released, or 1,882 Mm^3 more than planned.

Table 2.1

Parameter	Volume, Mm^3 (from 01.10.14 to 01.04.15.)			actual/ forecast (%)	actual/ norm (%)
	norm	forecast	actual		
Inflows to upper reservoirs					
Toktogul	2,721	2,614	2,845	109	105
Andijan	925	785	1,087	138	118
Charvak (total of 4 rivers)	1,405	1,335	1,617	121	115
Total:	**5,051**	**4,734**	**5,549**	**117**	**110**
Lateral inflows					
			(est.)		
Toktogul – Uchkurgan	398	383	233	61	59
Uchkurgan, Uchtepe-Kayrakkum	4,234	4,085	4,578	112	108
Andijan – Uchtepe	2,548	2,125	2,322	109	91
Kayrakkum – Shardara	2,956	2,675	2,657	99	90
Gazalkent – Chinaz (w/o Ugam)	858	785	700	89	82
Total:	**10,994**	**10,053**	**10,490**	**104**	**95**
Grand total:	**16,045**	**14,787**	**16,039**	**108**	**100**

Table 2.2

Reservoir	Releases, Mm^3 (from 01.10.2014 to 01.04.2015)		Actual/ scheduled (%)
	According to the approved **NSRC** operation schedule	Actual	
Toktogul	6,510	8,335	128
Andijan	517	529	102
Charvak (release from Gazalkent HEPS)	2,122	2,457	116
Kayrakkum	8,549	9,802	115
Shardara	6,532	8,414	129
Total:	**24,230**	**29,537**	**122**

According to the operation schedule, releases from the Kayrakkum reservoir were to be 8,549 Mm^3. In fact, 9,802 Mm^3 were released, or 1,253 Mm^3 more than planned.

According to the operation schedule, total releases from reservoirs were to be 24,230 Mm^3. In fact, 29,537 Mm^3 were released, or 5,307 Mm^3 more than planned (Table 2.2).

Water was supplied to user states during the non-growing season, taking into account water requests in the following amounts (Tables 2.3 and 2.4):

- Kazakhstan 405 Mm^3 (101% of quota);
- Kyrgyzstan 21 Mm^3 (56%);
- Tajikistan 24 Mm^3 (7%);
- Uzbekistan 2,699 Mm^3 (109%).

Table 2.3

Reach, water user state	Water withdrawal, Mm^3 (from 01.10.14 to 01.04.15)		
	According to water quota	Actual	%%
Toktogul – Uchkurgan hydroscheme, including:	**1,365.92**	**1,303.64**	**95.44**
Kyrgyzstan	29.76	17.17	57.70
Tajikistan	84.15	0	0
Uzbekistan	1,252.01	1,286.46	102.75
Uchkurgan – Kayrakkum hydroscheme, including:	**246.69**	**176.66**	**71.61**
Kyrgyzstan	7.13	3.33	46.70
Tajikistan	68.60	0.59	0.86
Uzbekistan	170.96	172.74	101.03
Kayrakkum hydroscheme – Shardara reservoir, including:	**1,672.94**	**1,669.09**	**99.77**
Kazakhstan	400.03	404.96	101.23
Tajikistan	212.37	23.85	11.23
Uzbekistan	1,060.54	1,240.29	116.95

Table 2.4

Water user state	Water withdrawal, Mm^3 (from 01.10.14 to 01.04.15)		
	Water quota	Actual	%
Kazakhstan (Dostyk canal)	400	405	101
Kyrgyz Republic	37	21	56
Republic of Tajikistan	365	24	7
Republic of Uzbekistan	2,484	2,699	109

The Aral Sea and the Prearalie were planned to receive 2,489 Mm^3. The actual inflow was 2,321 Mm^3 at Karateren gauging station (Table 2.5).

According to approved operation schedule, the inflow to the Shardara reservoir was planned to be 10,239 Mm^3. In fact, 11,483 Mm^3 were received.

Table 2.5

Parameters	Scheduled	Actual
	Mm^3	
Water supply to the Aral Sea (est.)	2,489	2,321
Inflow to the Shardara reservoir	10,239	11,483

By the end of the non-growing season by the April 1, the amount of water in upper reservoirs was 7,964 Mm^3, or 859 Mm^3 lower than the scheduled amount of 8,823 Mm^3 (Table 2.6).

The upper reservoirs accumulated water in the following amounts:

Toktogul 6,426 Mm^3

Andijan 938 Mm^3

Charvak 600 Mm^3

Table 2.6

Reservoir	Reservoir volume, Mm^3		
	by 01.10.14	scheduled by 01.04.15	actual by 01.04.15
Toktogul	11,921	7,369	6,426
Andijan	392	767	938
Charvak	1,504	687	600
Total:	**13,817**	**8,823**	**7,964**
Kayrakkum	1,120	3,418	3,350
Shardara	933	4,698	3,838
Total:	**15,870**	**16,939**	**15,152**

The operation schedule of the Naryn-Syrdarya reservoir cascade from October 1, 2014 to April 1, 2015 is shown in Table 2.7.

Table 2.7

Operation regime of the Naryn-Syrdarya reservoir cascade from October 1, 2014 to March 31, 2015

Toktogul reservoir		*October*	*November*	*December*	*January*	*February*	*March*	*Total*
		(actual)	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*Mm^3*
Inflow to the reservoir	*m^3/sec*	**254.52**	**190.07**	**149.36**	**145.42**	**148.29**	**195.17**	
	Mm^3	681.70	492.65	400.03	389.49	358.73	522.75	2845.36
Volume: beginning of the period	*Mm^3*	**11921.00**	**11528.00**	**10494.00**	**9250.00**	**8087.00**	**7150.00**	
end of the period	*Mm^3*	**11528.00**	**10494.00**	**9250.00**	**8087.00**	**7150.00**	**6426.00**	
Release from the reservoir	*m^3/sec*	**398.39**	**588.17**	**614.58**	**579.68**	**536.75**	**465.26**	
	Mm^3	1067.04	1524.53	1646.09	1552.61	1298.51	1246.15	8334.92
Kayrakkum reservoir		*October*	*November*	*December*	*January*	*February*	*March*	*Total*
		(actual)	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*Mm3*
Inflow to the reservoir	*m^3/sec*	**513.78**	**843.27**	**984.39**	**813.00**	**885.32**	**687.77**	
	Mm^3	1376.10	2185.75	2636.58	2177.54	2141.77	1842.11	12359.85
Volume: beginning of the period	*Mm^3*	**1120.00**	**2133.90**	**2839.60**	**2977.00**	**2839.00**	**3075.00**	
end of the period	*Mm^3*	**2133.90**	**2839.60**	**2977.00**	**2839.00**	**3075.00**	**3350.00**	
Release from the reservoir	*m^3/sec*	**132.74**	**578.17**	**859.51**	**814.97**	**784.79**	**574.31**	
	Mm^3	355.53	1498.61	2328.91	2182.81	1898.56	1538.22	9802.63
Shardara reservoir		*October*	*November*	*December*	*January*	*February*	*March*	*Total*
		(actual)	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*Mm3*
Inflow to the reservoir	*m^3/sec*	**210.49**	**579.19**	**1042.44**	**754.45**	**1012.07**	**805.16**	
	Mm^3	563.77	1501.25	2792.07	2020.72	2448.40	2156.55	11482.78
Volume: beginning of the period	*Mm^3*	**933.00**	**1209.00**	**1668.00**	**2789.00**	**2978.00**	**4055.00**	
end of the period	*Mm^3*	**1209.00**	**1668.00**	**2789.00**	**2978.00**	**4055.00**	**3838.05**	
Release from the reservoir	*m^3/sec*	**114.93**	**420.67**	**600.00**	**731.45**	**564.64**	**777.78**	
	Mm^3	307.84	1090.37	1607.04	1959.12	1365.98	2083.20	8413.55
Release to the Kzylkum canal	*m^3/sec*	**5.00**	**5.00**	**2.77**	**2.00**	**2.00**	**45.70**	
	Mm3	13.39	12.96	7.43	5.36	4.84	122.40	166.38

Release to the Arnasay depression	*m^3/sec*	**0.00**	**0.00**	**0.00**	**0.00**	**36.61**	**96.32**	
	Mm^3	0.00	0.00	0.00	0.00	88.56	255.31	343.88
Water supply to the Aral Sea	*m^3/sec*	117.45	110.33	164.04	165.14	165.32	163.81	
	Mm^3	314.58	285.98	439.36	442.30	399.95	438.76	2320.93
Charvak reservoir		*October*	*November*	*December*	*January*	*February*	*March*	*Total*
		(actual)	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*Mm3*
Inflow to the reservoir (total of the 4 rivers)	*m^3/sec*	**114.95**	**108.45**	**90.87**	**85.68**	**95.82**	**120.83**	
	Mm^3	307.88	281.10	243.40	229.48	231.81	323.63	1617.30
Volume: beginning of the period	*Mm^3*	**1504.00**	**1388.80**	**1274.00**	**1096.00**	**843.00**	**667.00**	
end of the period	*Mm^3*	**1388.80**	**1274.00**	**1096.00**	**843.00**	**667.00**	**599.96**	
Release from the reservoir (release from the Gazalkent HEPS)	*m^3/sec*	**159.58**	**150.07**	**149.61**	**167.97**	**165.32**	**145.76**	
	Mm^3	427.42	388.97	400.72	449.88	399.95	390.40	2457.35
Andizhan reservoir		*October*	*November*	*December*	*January*	*February*	*March.*	*Total*
		(actual)	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*(actual)*	*Mm3*
Inflow to the reservoir	*m^3/sec*	**68.71**	**77.50**	**71.03**	**61.03**	**62.97**	**73.11**	
	Mm^3	184.03	200.88	190.26	163.47	152.33	195.81	1086.78
Volume: beginning of the period	*Mm^3*	**392.20**	**363.60**	**480.05**	**647.02**	**785.90**	**916.50**	
end of the period	*Mm^3*	**363.60**	**480.05**	**647.02**	**785.90**	**916.50**	**937.71**	
Release from the reservoir	*m^3/sec*	**77.42**	**32.87**	**8.00**	**8.00**	**8.00**	**65.16**	
	Mm^3	207.36	85.19	21.43	21.43	19.35	174.53	529.29

WATER WITHDRAWAL QUOTAS, OPERATION REGIMES FOR THE RESERVOIR CASCADE DURING THE GROWING SEASON 2015 IN THE AMUDARYA AND SYRDARYA RIVER BASINS[2]

Amudarya River Basin

By the 1st of April, actual water volume was 6,779 Mm^3in the Nurek reservoir, and 3,095 Mm^3 in the Tuyamuyun reservoir. According to Hydromet's forecast, water availability downstream of the Atamurat gauging station upstream of Garagumdarya during the growing season 2015 is expected to be within 45,052 Mm^3 or 95.0% of the norm.

Given the water storage in the reservoirs and expected water availability in the Amudarya River, riparian countries submitted the following water withdrawal quotas for the growing season 2015:

1. Republic of Tajikistan – 6,942 Mm^3
2. Turkmenistan – 15,500 Mm^3
3. Republic of Uzbekistan – 17,220 Mm^3

including Surkhandarya province – 1,200 Mm^3

River reach Water user state	**Quota Mm^3**
Downstream of the Atamurat gauging station	31,520
Turkmenistan	15,500
Republic of Uzbekistan	16,020

Generally, under conditions of normal water availability, it was requested to set water withdrawal quotas at 39,662 Mm^3 in the Amudarya River basin.

[2] Information on the second item of the 66th ICWC meeting agenda

River reach Water user state	Quota Mm^3
Upper reaches	**8,142.5**
Republic of Tajikistan	6,942.5
Republic of Uzbekistan	1,200.0
Middle reaches	**16,207.0**
Turkmenistan	10,472.0
Republic of Uzbekistan	5,735.0
Lower reaches	**15,313.0**
Turkmenistan	5,028.0
Republic of Uzbekistan	10,285.0

For the growing season 2015, it is planned to supply 2,100 Mm^3 of water to Prearalie and the Aral Sea.

Given the water availability forecast and the current water situation in the region, water withdrawal quotas for the growing season 2015 were submitted to ICWC members for consideration (Table 1.4).

Table 1.5 shows operation regime of the Tuyamuyun reservoir.

BWO Amudarya submits operation regimes of the reservoirs, water withdrawal quotas, water amounts to be supplied to the Aral Sea and the Amudarya River Delta during the growing season 2015 to ICWC members for consideration and approval.

Table 1.4

Quotas of water withdrawal from the Amudarya River and water supply to the Aral Sea and the river delta for the growing season 2015

River basin, country	Water withdrawal quota, Mm^3	
	total annual (1.10.14 to 1.10.15)	including growing season (1.04.15 to 1.10.15)
Total withdrawal from the Amudarya River	55,070	39,662
of which:		
Republic of Tajikistan	9,500	6,942
From the Amudarya River to Atamurat gauging station	44,000	31,520
Turkmenistan	22,000	15,500
Republic of Uzbekistan	22,000	16,020
Additionally:		
Surkhandarya province of Uzbekistan	1,570	1,200
Plus:		
- water supply to Prearalie, including irrigation water and CDW	4,200	2,100
- sanitary and environmental water releases to irrigation systems in:	800	0
Dashkhovuz province	150	0
Khorezm province	150	0
Republic of Karakalpakstan	500	0

Note:
Water withdrawal quotas imply water supply for irrigation, industrial, municipal and other needs. If water availability in the basin changes, the quotas will be adjusted accordingly.

Table 1.5

Forecast operation of the Nurek reservoir (from April 2015 to September 2015), Mm^3

Nurek reservoir	Unit	Forecast						Total
		April	May	June	July	August	September	
Volume: beginning of the period	Mm^3	6,779	6,909	7,444	8,481	10,135	10,520	6,779
Inflow to the reservoir	$м^3/sec$	533	903	1,250	1,569	1,194	700	
	Mm^3	1,382	2,419	3,240	4,203	3,198	1,814	16,256
Release from the reservoir	$м^3/sec$	483	703	850	952	1,050	700	
	Mm^3	1,252	1,883	2,203	2,550	2,812	1,814	12,515
Volume: end of the period	Mm^3	6,909	7,444	8,481	10,135	10,520	10,520	10,520
Accumulation (+), drawdown (-)	Mm^3	130	536	1,037	1,654	386	0	3,741

Forecast operation of the Tuyamuyun reservoir (from April 2015 to September 2015), Mm^3

Tuyamuyun reservoir	Unit	Forecast						Total
		April	May	June	July	August	September	
Volume: beginning of the period	Mm^3	3,095	2,654	3,363	4,278	4,584	3,618	3,095
Inflow to the reservoir	$м^3/sec$	580	1,136	1,570	1,945	1,334	754	
	Mm^3	1,503	3,044	4,069	5,209	3,573	1,954	19,353
Release from the reservoir	$м^3/sec$	750	872	1,217	1,831	1,695	855	
	Mm^3	1,944	2,336	3,154	4,903	4,539	2,215	19,091
Volume: end of the period	Mm^3	2,654	3,363	4,278	4,584	3,618	3,357	3,357
Accumulation (+), drawdown (-)	Mm^3	-441	708	915	306	-966	-261	262

Syrdarya River Basin

According to Hydromet's forecast, water availability in the Syrdarya Riber basin during the growing season 2015 is expected to be within the norm (90-100%).

Given the water availability forecast 103% of the norm in the Naryn , inflow to the Toktogul reservoir is expected to be up to 9,910 Mm^3. Inflow to the Andijan reservoir is expected to be 3,165 Mm^3 (104% of the norm), to the Charvak reservoir – 5,461 Mm^3 (95% of the norm).

The normal inflow to upper reservoirs of Naryn-Syrdarya is 18,423 Mm^3. According to the forecast, this inflow is expected to be 18,536 Mm^3. This is 101% or 113 Mm^3 more than the norm.

The total normal lateral inflow is 11,198 Mm^3. According to the forecast, it is to be 10,925 Mm^3, i.e. 98% or 273 Mm^3 lower than the norm (Table 2.8).

The total normal inflow to the basin during the growing season is 29,621 Mm^3. According to the forecast, the total inflow is to be 29,461 Mm^3, i.e. 99% or 160 Mm^3 lower than the norm.

For comparison: in fact, the water availability during the growing season 2014 was 80% of the norm or 2,485 Mm^3.

By the beginning of the growing season, water storage in the reservoirs, excluding dead storage, is 7,832 Mm^3. In 2014, the water storage was 10,530 Mm^3, i.e. 2,698 Mm^3 more (Table 2.9).

By April 1, 2015, the water storage in the Toktogul reservoir, excluding dead storage, was 928 Mm^3. This is 2,581 Mm^3 lower than at the beginning of the growing season 2014.

The water storage in the Andijan reservoir is 802 $Mm^3$of water or 164 Mm^3 more than in the previous year.

The water storage in the Charvak reservoir is 164 Mm^3 or 51 Mm^3lower than in 2014.

The water storage in the Kayrakkum reservoir is 2,512 $Mm^3$of water or 49 Mm^3 lower than in 2014.

The water storage in the Shardara reservoir is 3,426 Mm^3 or 181 Mm^3 lower than in 2014.

Table 2.8

Forecast water inflow to the Syrdarya River Basin during the growing season 2015

Name	Norm	Hydromet's forecast					
		Volume, Mm3			of the norm, %		
		min	max	average	min	max	average
Inflow to upper reservoirs:							
Toktogul	9,588	8,797	11,023	**9,910**	92	115	**103**
Andijan	3,057	2,690	3,640	**3,165**	88	119	**104**
Charvak (r.Ugam)	5,778	4,905	6,016	**5,461**	85	104	**95**
Total:	**18,423**	16,392	20,679	**18,536**	89	112	**101**
Lateral inflow:							
Toktogul – Uchkurgan	1,184	976	1,272	1,124	82	107	95
Uchkurgan-Uchtepe-Kayrakkum	3,352	3,163	3,793	3,478	94	113	**104**
Andijan-Uchtepe	2,577	2,373	3,003	2,688	92	117	104
Kayrakkum – Shardara	3,162	2,530	3,160	2,845	80	100	90
Gazalkent-Chinaz g/s-Chirchik	923	635	945	790	69	102	86
Total:	**11,198**	9,677	12,173	**10,925**	86	109	**98**
Grand total (total inflow):	**29,621**	26,069	32,852	**29,461**	88	111	**99**

Table 2.9

Water storage in reservoirs, excluding dead storage, Mm^3

Name	Volume by 01.04.2015	Dead storage	Water storage	
			by 01.04.15	by 01.04.14
Toktogul	6,428	5,500	928	3,509
Andijan	952	150	802	638
Charvak	590	426	164	215
Kayrakkum	3,429	917	2,512	2,561
Shardara	3,946	520	3,426	3,607
Total:	**15,345**	**7,513**	**7,832**	**10,530**

In general, for the growing season, the total volume of water (total water storage plus total inflow) is 37,293 Mm^3.

Taking into account available water storage in the reservoirs and expected water availability, the following water withdrawal quotas for the growing season 2015 are proposed for consideration (Table 2.10).

Table 2.10

Country water withdrawal quotas in the Syrdarya River Basin

Water user state	Quotas (100%), Mm^3
Kazakhstan (Dostyk canal)	785
Kyrgyz Republic	246
Republic of Tajikistan	1,905
Republic of Uzbekistan	8,800
Total:	**11,736**

Water withdrawal quotas cut by 10% are shown in the Table 2.11.

Table 2.11

Country water withdrawal quotas in the Syrdarya River Basin for the growing season 2015, Mm^3 (cut by 10%)

Water user state	Quotas 90%
Republic of Kazakhstan (Dostyk canal)	707
Kyrgyz Republic	221
Republic of Tajikistan	1,715
Republic of Uzbekistan	7,920
Total:	**10,563**

Three options of operation regimes of the Naryn-Syrdarya reservoir cascade for the growing season 2015 are proposed.

In Option I, water releases from the Toktogul reservoir at outlet from the Naryn cascade are expected to be 4,540 Mm^3 and from the Andijan reservoir 3,217 Mm^3 (Table 2.12). This leads to water deficit for irrigation needs in total amount of 355 Mm^3 in the middle reaches, including 161 Mm^3 in June and 195 Mm^3 in July.

In Option II, water releases are expected to be 4,565 Mm^3 from the Toktogul reservoir and 3,236 Mm^3 from the Andijan reservoir (Table 2.13). This leads to water deficit for irrigation needs only in the middle reaches in total amount of 414 Mm^3, of which 265 Mm^3 in June, 114 Mm^3 in July, and 35 Mm^3 in August.

In Option III, water releases are expected to be 4,461 Mm^3 from the Toktogul reservoir and 3,141 Mm^3 from the Andijan reservoir (Table 2.14). This leads to water deficit for irrigation needs in the middle reaches in total amount of 717 Mm^3 , of which 291 Mm^3 in June, 328 Mm^3 in July, and 98 Mm^3 in August.

Table 2.12

FORECAST OPERATION SCHEDULE OPTION 1

of the Naryn-Syrdarya reservoir cascade

with additional releases from upper reservoirs to overcome water deficit

from April 1, 2015 to September 30,2015

(Quota - 100%)

Toktogul reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**360.00**	**736.00**	**1010.00**	**770.00**	**578.00**	**300.00**	
	Mm³	933.12	1971.30	2617.92	2062.37	1548.12	777.60	**9910.43**
Volume: beginning of the period	*Mm³*	***6428.00***	***6502.68***	***7795.54***	***9731.09***	***10823.66***	***11618.40***	
end of the period	*Mm³*	***6502.68***	***7795.54***	***9731.09***	***10823.66***	***11618.40***	***11743.08***	
Release from the reservoir	*m³/sec*	**330.00**	**252.00**	**262.00**	**358.00**	**275.26**	**245.00**	
(with additional releases)	*Mm³*	855.36	674.96	679.10	958.87	737.25	635.04	**4540.58**
Kayrakkum reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**508.88**	**430.34**	**303.03**	**350.48**	**300.28**	**345.67**	
	Mm³	1319.01	1152.62	785.46	938.71	804.28	895.98	**5896.06**
Volume: beginning of the period	*Mm³*	***3429.00***	***3418.21***	***3418.06***	***2760.22***	***2055.00***	***1513.20***	
end of the period	*Mm³*	***3418.21***	***3418.06***	***2760.22***	***2055.00***	***1513.20***	***1687.74***	
Release from the reservoir	*m³/sec*	**515.67**	**401.16**	**500.00**	**550.00**	**450.00**	**250.00**	
	Mm³	1336.61	1074.47	1296.00	1473.12	1205.28	648.00	**7033.48**
Shardara reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**461.66**	**309.96**	**207.55**	**190.28**	**160.96**	**318.09**	
	Mm³	1196.61	830.19	537.97	509.64	431.11	824.49	**4330.02**
Volume: beginning of the period	*Mm³*	***3946.00***	***4066.93***	***3678.45***	***2938.57***	***1975.09***	***1200.83***	
end of the period	*Mm³*	***4066.93***	***3678.45***	***2938.57***	***1975.09***	***1200.83***	***1398.06***	
Release from the reservoir	*m³/sec*	**380.00**	**320.00**	**330.00**	**380.00**	**340.03**	**200.00**	
	Mm³	984.96	857.09	855.36	1017.79	910.74	518.40	**5144.34**
Release to the Kzylkum	*m³/sec*	20.00	100.00	110.00	110.00	90.00	25.00	
canal	*Mm³*	51.84	267.84	285.12	294.62	241.06	64.80	**1205.28**
Release to the Arnasay	*m³/se*	0.00	0.00	0.00	0.00	0.00	0.00	

	c							
depression	*Mm³*	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Water supply to the Aral Sea	*m³/sec*	**157.40**	**153.81**	**156.90**	**155.51**	**153.03**	**156.50**	
	Mm³	407.99	411.96	406.68	416.51	409.88	405.65	**2458.67**
Charvak reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**246.10**	**442.90**	**573.70**	**424.60**	**235.80**	**146.90**	
(total of the 4 rivers)	*Mm³*	637.89	1186.26	1487.03	1137.25	631.57	380.76	**5460.77**
Volume: beginning of the period	*Mm³*	***590.00***	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	
end of the period	*Mm³*	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	***1495.33***	
Release from the reservoir	*m³/sec*	**150.00**	**267.10**	**380.00**	**420.00**	**320.00**	**180.00**	
(release from the Gazalkent HEPS)	*Mm³*	388.80	715.39	984.96	1124.93	857.09	466.56	**4537.73**
Andizhan reservoir		*Апрель*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**170.80**	**305.40**	**329.20**	**217.40**	**106.60**	70.40	
	Mm³	442.71	817.98	853.29	582.28	285.52	182.48	**3164.26**
Volume: beginning of the period	*Mm³*	***952.00***	***1134.58***	***1576.62***	***1910.58***	***1421.45***	***890.00***	
end of the period	*Mm³*	***1134.58***	***1576.62***	***1910.58***	***1421.45***	***890.00***	***888.39***	
Release from the reservoir	*m³/sec*	**100.00**	**140.00**	**200.00**	**399.00**	**304.00**	**70.00**	
(with additional releases)	*Mm³*	259.20	374.98	518.40	1068.68	814.23	181.44	**3216.93**

Table 2.13

FORECAST OPERATION SCHEDULE OPTION 2

of the Naryn-Syrdarya reservoir cascade
with additional releases from upper reservoirs to overcome water deficit
from April 1, 2015 to September 30,2015
(Quota - 100%)

Toktogul reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**360.00**	**736.00**	**1010.00**	**770.00**	**578.00**	**300.00**	
	Mm³	933.12	1971.30	2617.92	2062.37	1548.12	777.60	**9910.43**
Volume: beginning of the period	*Mm³*	***6428.00***	***6502.68***	***7795.54***	***9653.33***	***10799.47***	***11594.21***	
end of the period	*Mm³*	***6502.68***	***7795.54***	***9653.33***	***10799.47***	***11594.21***	***11718.89***	
Release from the reservoir	*m³/sec*	**330.00**	**252.00**	**292.00**	**338.00**	**275.26**	**245.00**	
(with additional releases)	*Mm³*	855.36	674.96	756.86	905.30	737.25	635.04	**4564.77**
Kayrakkum reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**508.88**	**430.34**	**333.03**	**331.48**	**306.28**	**345.67**	
	Mm³	1319.01	1152.62	863.22	887.82	820.35	895.98	**5939.00**
Volume: beginning of the period	*Mm³*	***3429.00***	***3418.21***	***3408.04***	***2931.64***	***2095.18***	***1612.67***	
end of the period	*Mm³*	***3418.21***	***3408.04***	***2931.64***	***2095.18***	***1612.67***	***1787.20***	
Release from the reservoir	*m³/sec*	**515.67**	**404.90**	**460.00**	**580.00**	**433.86**	**250.00**	
	Mm³	1336.61	1084.49	1192.32	1553.47	1162.06	648.00	**6976.96**
Shardara reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**461.66**	**313.70**	**207.55**	**190.28**	**144.82**	**318.09**	
	Mm³	1196.61	840.21	537.97	509.64	387.89	824.49	**4296.82**
Volume: beginning of the period	*Mm³*	***3946.00***	***4066.93***	***3688.48***	***2948.59***	***1985.11***	***1167.64***	
end of the period	*Mm³*	***4066.93***	***3688.48***	***2948.59***	***1985.11***	***1167.64***	***1364.86***	
Release from the reservoir	*m³/sec*	**380.00**	**320.00**	**330.00**	**380.00**	**340.03**	**200.00**	
	Mm³	984.96	857.09	855.36	1017.79	910.74	518.40	**5144.34**
Release to the Kzylkum	*m³/sec*	20.00	100.00	110.00	110.00	90.00	25.00	
canal	*Mm³*	51.84	267.84	285.12	294.62	241.06	64.80	**1205.28**
Release to the Arnasay	*m³/sec*	0.00	0.00	0.00	0.00	0.00	0.00	

depression	*Mm³*	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Water supply to the Aral Sea	*m³/sec*	**157.40**	**153.81**	**156.90**	**155.51**	**153.03**	**156.50**	
	Mm³	407.99	411.96	406.68	416.51	409.88	405.65	**2458.67**
Charvak reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**246.10**	**442.90**	**573.70**	**424.60**	**235.80**	**146.90**	
(total of the 4 rivers)	*Mm³*	637.89	1186.26	1487.03	1137.25	631.57	380.76	**5460.77**
Volume: beginning of the period	*Mm³*	***590.00***	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	
end of the period	*Mm³*	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	***1495.33***	
Release from the reservoir	*m³/sec*	**150.00**	**267.10**	**380.00**	**420.00**	**320.00**	**180.00**	
(release from the Gazalkent HEPS)	*Mm³*	388.80	715.39	984.96	1124.93	857.09	466.56	**4537.73**
Andizhan reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total,Mm³*
Inflow to the reservoir	*m³/sec*	**170.80**	**305.40**	**329.20**	**217.40**	**106.60**	70.40	
	Mm³	442.71	817.98	853.29	582.28	285.52	182.48	**3164.26**
Volume: beginning of the period	*Mm³*	***952.00***	***1134.58***	***1576.62***	***1910.58***	***1418.77***	***871.25***	
end of the period	*Mm³*	***1134.58***	***1576.62***	***1910.58***	***1418.77***	***871.25***	***869.64***	
Release from the reservoir	*Mm³*	**100.00**	**140.00**	**200.00**	**400.00**	**310.00**	**70.00**	
(with additional releases)	*Mm³*	259.20	374.98	518.40	1071.36	830.30	181.44	**3235.68**

Table 2.14

FORECAST OPERATION SCHEDULE OPTION 3

of the Naryn-Syrdarya reservoir

cascade

with additional releases from upper reservoirs to overcome water deficit

from April 1, 2015 to September 30,2015

(Quota - 100%)

Toktogul reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm^3*
Inflow to the reservoir	*m^3/sec*	**360.00**	**736.00**	**1010.00**	**770.00**	**578.00**	**300.00**	
	Mm^3	933.12	1971.30	2617.92	2062.37	1548.12	777.60	**9910.43**
Volume: beginning of the period	*Mm^3*	***6428.00***	***6502.68***	***7795.54***	***9769.97***	***10916.11***	***11697.89***	
end of the period	*Mm^3*	***6502.68***	***7795.54***	***9769.97***	***10916.11***	***11697.89***	***11822.57***	
Release from the reservoir	*m^3/sec*	**330.00**	**252.00**	**247.00**	**338.00**	**280.10**	**245.00**	
(with additional releases)	*Mm^3*	855.36	674.96	640.22	905.30	750.21	635.04	**4461.09**
Kayrakkum reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm^3*
Inflow to the reservoir	*m^3/sec*	**508.88**	**430.34**	**303.03**	**301.48**	**290.48**	**345.67**	
	Mm^3	1319.01	1152.62	785.46	807.47	778.01	895.98	**5738.55**
Volume: beginning of the period	*Mm^3*	***3429.00***	***3418.21***	***3408.04***	***2879.80***	***2177.26***	***1716.33***	
end of the period	*Mm^3*	***3418.21***	***3408.04***	***2879.80***	***2177.26***	***1716.33***	***1890.87***	
Release from the reservoir	*m^3/sec*	**515.67**	**404.90**	**450.00**	**500.00**	**410.00**	**250.00**	
	Mm^3	1336.61	1084.49	1166.40	1339.20	1098.14	648.00	**6672.84**
Shardara reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm^3*
Inflow to the reservoir	*m^3/sec*	**461.66**	**313.70**	**207.55**	**190.28**	**157.65**	**318.09**	
	Mm^3	1196.61	840.21	537.97	509.64	422.25	824.49	**4331.18**
Volume: beginning of the period	*Mm^3*	***3946.00***	***4066.93***	***3688.48***	***2948.59***	***1985.11***	***1202.00***	
end of the period	*Mm^3*	***4066.93***	***3688.48***	***2948.59***	***1985.11***	***1202.00***	***1399.22***	
Release from the reservoir	*m^3/sec*	**380.00**	**320.00**	**330.00**	**380.00**	**340.03**	**200.00**	
	Mm^3	984.96	857.09	855.36	1017.79	910.74	518.40	**5144.34**
Release to the Kzylkum canal	*m^3/sec*	20.00	100.00	110.00	110.00	90.00	25.00	
	Mm^3	51.84	267.84	285.12	294.62	241.06	64.80	**1205.28**
Release to the Arnasay	*m^3/se*	0.00	0.00	0.00	0.00	0.00	0.00	

	c							
depression	*Mm³*	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Water supply to the Aral Sea	*m³/sec*	**157.40**	**153.81**	**156.90**	**155.51**	**153.03**	**156.50**	
	Mm³	407.99	411.96	406.68	416.51	409.88	405.65	**2458.67**
Charvak reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm³*
Inflow to the reservoir	*m³/sec*	**246.10**	**442.90**	**573.70**	**424.60**	**235.80**	**146.90**	
(total of the 4 rivers)	*Mm³*	637.89	1186.26	1487.03	1137.25	631.57	380.76	**5460.77**
Volume: beginning of the period	*Mm³*	***590.00***	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	
end of the period	*Mm³*	***838.57***	***1307.84***	***1806.80***	***1814.83***	***1584.49***	***1495.33***	
Release from the reservoir	*m³/sec*	**150.00**	**267.10**	**380.00**	**420.00**	**320.00**	**180.00**	
(release from the Gazalkent HEPS)	*Mm³*	388.80	715.39	984.96	1124.93	857.09	466.56	**4537.73**
Andizhan reservoir		*April*	*May*	*June*	*July*	*August*	*September*	*Total, Mm³*
Inflow to the reservoir	*m³/sec*	**170.80**	**305.40**	**329.20**	**217.40**	**106.60**	70.40	
	Mm³	442.71	817.98	853.29	582.28	285.52	182.48	**3164.26**
Volume: beginning of the period	*Mm³*	***952.00***	***1134.58***	***1576.62***	***1871.70***	***1460.24***	***966.29***	
end of the period	*Mm³*	***1134.58***	***1576.62***	***1871.70***	***1460.24***	***966.29***	***964.68***	
Release from the reservoir	*m³/sec*	**100.00**	**140.00**	**215.00**	**370.00**	**290.00**	**70.00**	
(with additional releases)	*Mm³*	259.20	374.98	557.28	991.01	776.74	181.44	**3140.64**

7th WORLD WATER FORUM

The 7th World Water Forum took place in Daegu & Gyeongju in April 12–17, 2015. This Forum was the largest one in the fora history. According to the Forum National Committee, 41 000 people from 168 countries participated in the Forum and a total of 400 sessions were organized. The Water-Expo encompassed about 300 pavilions of different countries, organizations and companies.

The delegations from the Central Asian countries came to the Forum at the head of: Emomali Rakhmon, President of Tajikistan; Gurbanguly Berdymukhamedov, President of Turkmenistan; Ye.N.Nysanbayev, Vice-Minister of Agriculture, Republic of Kazakhstan; Zh.K.Kerimaliev, Deputy Minister of Agriculture and Land Reclamation, Kyrgyz Republic; Sh.R.Khamraev, Deputy Minister of Agriculture and Water Resources of the Republic of Uzbekistan and Acting Chairman of IFAS Executive Committee.

The Forum was opened on 12 April 2015. The opening ceremony was attended by more than 3,000 participants, including six Heads of States (Hungary, Republic of Korea, Tajikistan, Turkmenistan, Ethiopia, and Morocco), Heads of international organizations and Ministers of water and associated sectors.

The speakers highlighted the increasing importance of water for economical development in the countries, improved well-being, environmental security and peacekeeping.

Jung-moo Lee, Chairman of the National Committee for the 7th World Water Forum, noted that the Forum is one of the mechanisms to achieve goals and an important platform for identifying the future of water. “We are to develop detailed action plans and identify concrete deadlines”, - said the Chairman.

Benedito Braga, President of the World Water Council, brought to the attention of the participants that the Forum was not just numerous sessions organized in Korea but also a continued preparatory process, which involved stakeholders at all levels in every country. The Forum will follow-up in other important activities planned in 2015, such as the discussion on MDGs in September and negotiations on climate change in November. The speaker noted that water deserves new approaches and we are to search for them together, taking into account specifics of countries and regions and exchanging the ideas and effective solutions.

The Mayor of Daegu and the Governor of the province welcomed the participants and presented their achievements and concrete actions on water security, including considerable improvement of water quality that became critical due to rapid industrialization. They also presented measures for control of mudflows and other natural disasters. “Water is in the core of our history and our future, let’s remember this”, concluded the Governor.

Ms. Park, President of the Republic of Korea, proudly noted that Korea is the second country in Asia that holds the World Water Forum. As the host party, the Republic of Korea proposes strengthening of joint actions in the following three areas:

First, intensify efforts of the world community for implementation of innovative technologies combined with conventional approaches. For this purpose Korea suggested to update the format of the Forum by including the science&technology process as an additional one, as well as by initiating adoption of the action monitoring system based on the Forum's results.

Second, extend measures on international cooperation. Today 10% of Korean funds allocated for international development goals are aimed at water-related issues. Korea established the Global Green Growth Institute to promote incorporation of "green" approaches in the development processes.

Third, enter the era of piece-making to eradicate conflicts. H.E. Ms. President noted that this year marked the 70 years left since the division of Korea into South and North states. In her opinion, these are water-related issues that can and are to ease relations between the south and the north. The audience applauded the President

The welcoming speech of Park Geun-hye, President of Korea, at the Forum.

Gurbanguly Berdymukhamedov, President of Turkmenistan, underlined that the water-related issues cannot be addressed in isolation from the long-term world development agenda and he reiterated commitment of Turkmenistan to agreements reached in the water segment of sustainable development during the UN Conference "Rio+20" and other international fora. The President supported the idea of water diplomacy as a new political and diplomatic form of multilateral interactions for tackling the challenges of water resources restoration and their sound and rational use. The President suggested drafting a water document at the UN level (e.g. UN water strategy). He stressed that all countries all over the world should be committed to

ensuring access to water as a basic human right. He placed particular emphasis on the importance of water resources for economical development and regional prosperity in Central Asia, as well as the need of regional consensus based on universally recognized norms of international law, mutual respect and interests of all riparian countries. He also informed about the Turkmen Initiative on establishment of the Regional Technology Center for climate change in Ashgabad under the UN aegis. During the Presidency of Turkmenistan in the International Commission for Sustainable Development (ICSD) in 2015, water issues will be of priority.

Emomali Rahmon, President of Tajikistan, marked that the country was the initiator of a series of the UN General Assembly resolutions on water, two of which were presented during the previous World Water Fora in Kyoto and Istanbul. The President underlined the importance of infrastructure development, a need to focus on green economy and take into account "water-energy-food nexus" in order to balance all sectoral interests. Sustainable financing is crucial for achievement of water goals; however, underdeveloped infrastructure and lack of financing do not allow Tajikistan to develop available water resources for its national economy. Water-related disasters and agricultural water supply are among other relevant issues for Tajikistan and the region, in general. Given the gravity of present global challenges and threats, the President encouraged to support his Initiative on proclamation of the second International Decade under the slogan "Water for Sustainable Development", which would continue measures planned as part of the present International Decade for Action "Water for Life" (2005-2015) and develop new measures for achievement of Sustainable Development Goals. In conclusion, the President invited all stakeholders to participate at the High-level International Conference on the implementation of the International Decade to be held in June 9-11, 2015 in Dushanbe.

Janos Ader, President of Hungary, showed examples of water-related crises over the world (Brazil, Chili, California, Korea and Syria) in order to demonstrate the importance of activating the world community's efforts. Particularly, he suggested starting the development of an international agreement on coordinated use of water resources. He underlined a need to establish more effective intergovernmental water platform at the UN level.

Mulatu Teshome Wirtu, President of Ethiopia presented the national achievements in combating drought, poverty and climate change effects through implementation of the integrated water resources management.

The Head of Morocco Government presented three principles laid as the basis for improvement of water resources management in the country. The first principle is water demand management, the second one is the use of nonconventional water sources (desalination and sewage treatment), and the last one is the preservation of water resources and environment.

Angel Gurría, Secretary-General of the Organization for Economic Cooperation and Development (OECD) presented activities of the organization related to promotion of good water governance and management. He stressed the importance of investments (tariffs, transfers and taxes) for achievement of effective outcomes.

Jan Eliasson, UN Deputy Secretary-General, underlined the importance of water as the basis for cooperation and emphasized different forms of water diplomacy practiced in 148 countries sharing rivers lakes. In spite of considering the lack of water as a problem, we are to regard it as an opportunity to develop innovative forms of water diplomacy. Currently, UN member-states are working on development and approval of 17 Sustainable Development Goals, one of which is to ensure "sustainable water management and sanitation for all". This goal addresses water issues in integrated and holistic manner and includes three aspects of sustainable development: economical, indicating availability, social, underlining equitable access, and environmental, focusing on pollution reduction and environment preservation. The speaker also noted the role of science and technology in searching effective solutions for existing problems. "Let us demonstrate respectful attitude towards our most valuable and major resource – water. We can no longer exploit and destroy. It is time for all of us to make peace with the environment", concluded the UN Deputy Secretary-General.

After the presentations, high-level officials were invited to the stage to take part in the ceremony of water clock countdown that embodied the beginning of the new water era. For that purpose, a model of the first automatic water clock was developed. This water clock was invented in 1434 by the Korean scientist and astronomer Mr. Jang Yeong-sil.

An attempt of high-level officials to wind up ancient water clock, invented in Korea in the fifteenth century, as a symbol of the 7th World Water Forum opening

Then Mr. Abdou Maman from Nigeria was awarded with the King Khasan II Great World Water Prize for integrated and innovative solution for remote control of irrigation. Deputy Minister of Energy, Mines, Water and Environment, who presented

the prize, noted that Mr. Maman exemplifies social entrepreneurship as he serves his community and is in the core of dynamic local economy.

The ministerial conference started in the morning on 13th of April, 2015 with a brief plenary meeting that opened the ministerial process. The welcoming speech of Jung-moo Lee, Chairman of the National Committee of the 7th World Water Forum, who stressed that the main document of the Forum should be the Ministerial Declaration. He encouraged all participants of the Forum's ministerial segment, such as the Heads of government bodies responsible for water policy at different levels and officials of international organizations to contribute to drafting of this document.

Afterwards, eight ministerial roundtables were held:

Theme	Moderators
1. Ensuring safe and enough drinking water and sanitation for all	Algeria South Africa Sri Lanka
2. Integrated water resources management	Japan Nigeria
3. Sustainable water management and conservation ecosystems	Korea
4. Water – food – energy nexus	China Pakistan
5. Financing for strengthening water governance	Netherlands
6. Adaptation to climate change and management of water-related disaster risks.	Costa RicaKorea Netherlands
7. Culture, education and capacity development in water sector	Hungary
8. Water for piece and co-prosperity – transboundary water cooperation	Tajikistan USA

The approved final Ministerial Declaration confirms the political support to national water policies, plans and actions, as well as to efforts on the development of cooperation at the global level in the seven key areas:

1. Water is at the core of sustainable development and IWRM, which is important to effectively cope with increasing food and energy requirements towards sustainable development.

2. Commitment to the human rights to safe drinking water and sanitation is reaffirmed.

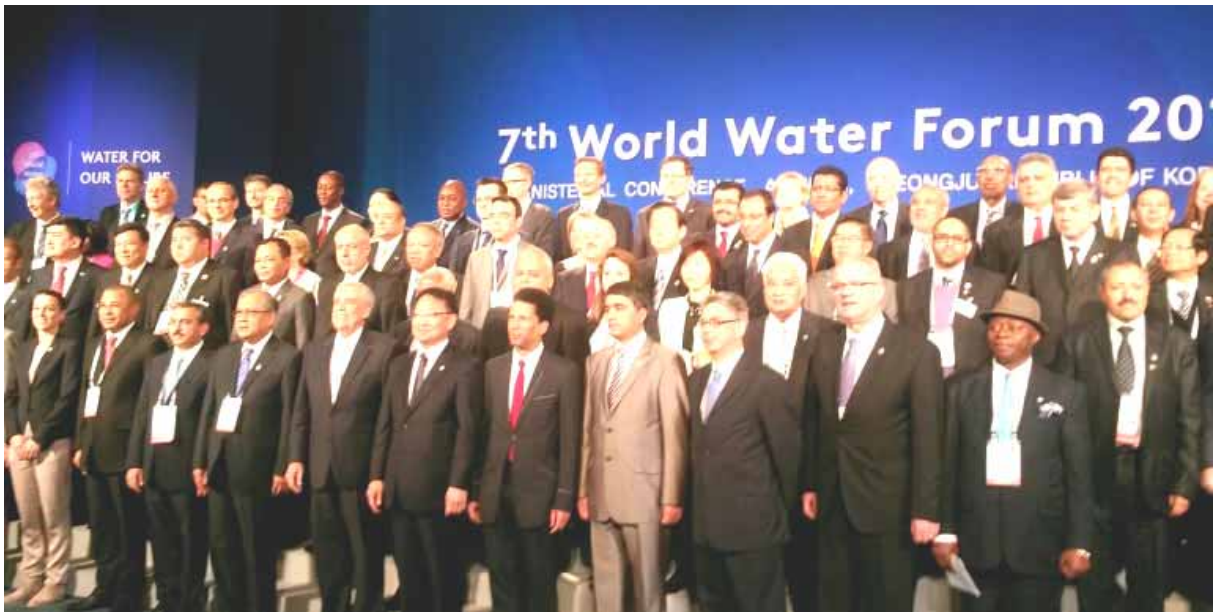
3. Water is recognized as one of the major issues in tackling climate change.

4. Every party is needed to contribute more to transboundary cooperation. A key role in promoting transboundary water cooperation is assumed by UN System; its international conventions can be useful in this regard.

5. IWRM is recognized as the main tool in risk reduction of water-related disasters and in conservation of environment.

6. Further strengthening of cooperation and partnership between developed and developing countries is crucial for tackling water issues.

7. Science and technology play a critical role in practical implementation of all known solutions of water issues. Information and communication technologies are of special importance. Special attention should be given to education, capacity building and knowledge dissemination.



The Forum was organized in form of 4 processes, such as Political, Thematic, Regional, and Science and Technology.

The Regional process was organized for seven approved regions of the world:

- Asia
- America
- Africa
- Europe

Particular (three) regions included member-states of the Arab League, Mediterranean and economically water-stressed states.

The International Steering committee of the 7th World Water Forum approved

16 key themes to be discussed during all Forum's events and in the follow-up actions afterwards.

THEME 1.1: Enough safe water for all

Since the recognition of the Human Right to Water and Sanitation by the UN in 2010, focus has been placed on implementation of measures to make that right a reality on the ground, as measured by quality, quantity, affordability and equity. Moreover, effective access to water means little if the source is not safe to drink.

The list of tentative issues:

- Comprehensive long-term water resources plan for water security
- Assessment of water quantity and quality at regional and country level
- Improved storage and conveyance
- Maximize water supply reliability
- Water use efficiency and effectiveness
- Appropriate technologies for save water supply in the region
- Assessment methodologies for water safety in terms of physcio-chemistry biology
- Efficient groundwater use ensuring water quantity
- Rainwater harvesting and reuse
- Desalination
- Decision making system for the source of drinking water supply.

THEME 1.2: Integrated sanitation for all

Access to basic sanitation remains at the core of public health. It has immediate impacts on water quality and is fundamental to reducing poverty. Wastewater treatment must be an integral part of providing sanitation for all.

Tentative questions:

- How appropriate wastewater treatment in urban areas of developing countries is to be promoted?
- What is the most affordable way to integrated approach for sanitation?
- How to promote water reuse in urban and water scarce area?

THEME 1.3: Adapting to change: Managing Risk and Uncertainty for Resilience and Disaster Preparedness

Managing risks and uncertainties of extreme water-related events is important

to achieve socioeconomic growth and sustainable development. The theme also covers the issues of rehabilitation and development after different disasters occurs, including man-made disasters. Major attention will be paid to early warning system for coordinated response on current water-related disasters.

The list of tentative issues:

● Adapting Climate Change in an Integrate Water Management Way at Watershed Level (National and Transboundary)

● Scientific support to Climate Change Understanding the problem and Informing Duty Bearers Strategies

● Preparing the COP 21 Paris Meeting 2015: the Path toward a Positive Agenda

● How to input the revision of the Hyogo Framework for Action through the Sendai process 2015?

● Humanitarian response to major crisis: improving effectiveness through supporting national coordination platforms (preparedness and response)

● Conciliating Emergency, Rehabilitation and Development agendas

● Coping and Adaptive Capacities: how to reduce vulnerability to disasters?

THEME 1.4: Infrastructure for sustainable water resources management and services

Recently, the main issue in the field of water resources management is to find the way to deal with the lack of water, food, and energy owing to population growth. In order to cope with this issue, securing water resources for sustainable development, improving the ability of aging facilities, maximizing the efficiency of the operation and management of existing water facilities are to be discussed.

The list of tentative questions:

● Comprehensive long-term water resources plan for water security

● How to secure water resources for sustainable development

● Improving the performance of aging facilities

● Maximizing the efficiency of water resources operation and management

● The aim to measure and guide regional sustainability performance of hydropower

● Progress in Protocol used to assess hydropower sustainability at the project level

● Resilience issues related:

Water supply infrastructure

Water transfer infrastructure

Water treatment infrastructure

Water distribution infrastructure

Waste water collection and treatment/disposal infrastructure

THEME 2.1: Water for food

Where 70% of the world's water withdrawals are already used for agriculture, an increase in cereal production of 70 - 100% will be required over the next 25-30 years to meet the needs of a growing global population.

Achieving the required increase will necessitate improvements along the entire chain, from field to fork.

The list of tentative issues:

- Develop customized groundwater well
- Develop rubber dam and ground dam
- Agricultural water reuse
- TM/TC (Tele-metering and Tele-control) system for water management
- Precision Agriculture (PA) technologies
- Improve drainage and reduce inundation
- Micro-irrigation for horticulture and landscape
- Efficient irrigation technology for bio-crop production
- Design and assess water demand for agricultural production and rural society
- Optimize water allocation for farmers and irrigation needs
- Modeling future sustainable farming with ecosystem
- Irrigation and rural society in Asia
- Environmental issues in irrigated agriculture
- Sustainable food production through irrigation

1. Degradation of soils in existing farming areas across key food insecure parts of the world caused by overuse and inappropriate farming techniques. Arrest decline in soil fertility. Develop extension services for farmers.

2. Rapid deterioration of ecosystems due to return of polluted water from farming activities or loss of environmental flows. Where feasible, establish catchment-based management systems with substantial involvement of farmers in decision making.

3. Virtual water imports substituting for actual water use in agriculture in water-stressed parts of the world. Economic compensation tools to restore social balance

through water use. Consider reductions in agricultural water use (through efficiency gains), but also through structural shifts in economies to establish less agricultural dependence.

4. Developing water use in smallholder farming and strengthening the wider development impacts of more productive rural rainfed systems that are less vulnerable to external shocks, including climate variability.

5. Establish more effective conjunctive use of blue and green water in water-stressed dry lands areas, reduce drought losses.

THEME 2.2: Water for energy

Ensuring water security while managing the world's rapidly growing demand for energy is a major challenge. Better integration of water and energy policies can help to balance these competing demands, in addition to increased efficiency and better supply and demand management and harmonization between sectors.

The list of tentative issues:

● IT Technology for the effective utilization of Water Energy

● The Combination of Water and Energy preparing for Climate Change

● Technical Development of Hydropower Sustainability

● Protocol Realization for Sustainable Hydropower Assessment and Management

● Expanding the Use of Water Energy Through Reasonable Water Resources Management

● Development and Value of Water As Renewable Energy Resources

● Water Energy Policy and Regionally Applicable Technology

● The Role of Water to moderate Global Energy Inequity

● The Future Prospect of Water Energy Industry

● Alternative Energy Sources

● How to Heighten Energy Efficiency?

● Desalination : the Sustainable Solution and Hope for the Future Generations

● Access to Water Through Affordable Energy Sources for Off-Grid

Communities

● Paving the way for the development of a conceptual framework of energy impacts on water

● The Hydropower Power Sustainability: Assessment Protocol, a Global

Framework to Promote Best Practice

- Water in a Changing Oil and Gas World
- Existing and Innovative Solutions for Better Water Management Practices in Biofuel Production
- Getting Policies Right for the Integration of Water and Energy
- Multipurpose water uses of hydropower reservoirs
- Water for energy: climate change impacts

THEME 2.3: Water and cities

The world's population is rapidly urbanizing, increasing demand for sustainable water solutions for cities and significantly increasing risks and vulnerability to water related disasters. Better management of urban water services will reduce poverty in cities, while better protection of water sources will make cities more resilient. Deployment of new technologies, for example water re-use, wastewater treatment technologies and desalination has potential to make future cities more water and energy efficient, as well as cleaner environments. Cities of the future will need integrated urban water management including not only water supply, wastewater and storm water but also the management of solid waste, housing and transportation.

THEME 3.1: Green growth, water stewardship and industry

Water is integral to the environmental and social stability that underpin the global economy and efforts to reduce poverty. Yet, sustainable and equitable management of water is too often overlooked, and its benefits underestimated in economic development decisions. Sustainable growth can be encouraged by bridging the economic, social and environmental dimensions of water, and reinforcing them through new and innovative technologies and infrastructures. Moreover, business, industries, governments, NGOs, communities and others can all become part of solving shared water challenges, for example by joining efforts to reduce industrial water footprints, thus reducing costs and improving efficiency. Just as there are different cultures there will be different green economies within both developing and industrialized countries. Green economies will feature both new and old technologies and tools.

The list of tentative issues:

- Green infrastructure and balancing natural and built infrastructure in infrastructure portfolios
- Public-private partnerships (PPPs) for green business and green water management
- Standardization of water accounting methods, availability and accessibility of

water accounting tools (e.g. maps and databases) and capacity building for water accounting

- Knowledge sharing through case studies at local, national and transboundary levels
- Incentivizing water use efficiency, minimized waste, and green business (e.g. through water accounting, waste charges, standards, water pricing, and water rights trading, as well as sectoral approaches (that may include well-designed and monitored subsidies))
- Regulatory frameworks for sustainable water management
- The role of technology in water accounting and water efficiency
- Integrated water resources management (IWRM)
- Closing the water loop through integrated urban water management (IUWM)
- Payment for ecosystem services (PES)
- Communication, awareness raising, education, participation, empowerment and ownership

THEME 3.2: Managing and Restoring Ecosystems for Water Services and Biodiversity

The water cycle is at the center of our ecological support system for life and offers critical benefits from water storage, filtration and risk reduction. Degrading ecosystems damage the delivery of water services to people. There are vital opportunities to improve both the sustainability of water services and the conservation of biodiversity by restoring watersheds, wetlands or rivers, as well as by using nature in engineering designs. Their implementation could be enhanced by incorporating the socio- economic value of natural systems and ecological flow needs into water resources management. New accounting for natural capital in cost-benefit assessments also has potential to help create explicit criteria for ecosystems health in the design of water investments.

The list of tentative issues:

- Ecosystem approach to water resource management
- Maintaining environmental flows and the pulse of aquatic ecosystems
- Integrated watershed management enhancing biodiversity
- Application of traditional knowledge for freshwater ecosystem management
- Innovative restoration techniques for degraded ecosystems
- Algal bloom management strategies and techniques
- Eco-friendly engineering solutions for restoration

● Rehabilitate aquatic ecosystems to restore ecosystem functions

● Improving the quality of water resources and freshwater ecosystem health

● Monitoring aquatic ecosystem to identify trends and assessing progress of restoration

THEME 3.3: Ensuring Water Quality from Ridge to Reef

Poor raw water quality has major environmental and economic costs that are felt from upland watersheds to coastal zones. Better management of water quality and of the ecosystems that regulates the quality, quantity and timing of water flows have benefits for both development and ecosystems. How can implementation of these solutions be accelerated and mainstreamed in investments for water resources development and management?

THEME 3.4: Smart implementation of IWRM

Reconciling water uses among competing social and ecological needs is a political as well as technical process. The same water is often claimed by different users, but water is the venue that connects these demands and can encourage new and productive political – technical dialogues to meet them. When we consider the multiple uses of water, be it for food and energy, industry and environment, or inland navigation and recreation, an integrated management approach is necessary to balance supply and demand. But, how is achieving that balance implemented in practice, while safeguarding the sustainability of surface and groundwater sources? How can we address the backlogs in its implementation?

The list of tentative issues:

● Modelling and monitoring approaches for water management

● Smart Water Distribution System

● Emerging Water Issues - Current and Future Trends

● Smart Water Loop Design and Management Plan

● Smart Water Grid Standardization

● ICT for Smart Water Management

● Advanced Metering Infrastructure for Water Management

● Integrated management of surface and ground waters

● New institutional, legal and policy paradigms

● Community participation – bottom up planning

● Economic instruments for market based mechanisms for improving water quantity and quality

● Managing environmental assets as part of the IWRM approaches

● Capacity building using ICTs – also for monitoring and warning mechanisms

THEME 4.1: Economics and Financing for innovative investments

Greater recognition is needed of the contribution of investment in water infrastructure and water resources development to creating platforms for growth and for social stability that is essential for increasing the flow of financial capital. Vendible aspects of water investment help foster solid capital markets essential for economic development. Investment in water supply and services saves millions in costs related to poor public health, low productivity and environmental damage in the long run. This message needs to be transmitted to financial decision-makers around the globe to improve financial flows and ensure financial feasibility and viability for improvements. Investment needs, for both hard measures and soft measures, are large. The needs will not be solved by ODA only. Efficient use of existing financial resources for water would significantly help us achieve our water-related goals and ease barriers to access to resources that already exist. Innovative financing mechanisms and private and public partnership are also essential.

THEME 4.2: Effective governance: Enhanced political decisions, stakeholder participation and technical information

The heart of water governance is the integration of political and technical institutions and dialogs. In order for governance to make a difference to realities on the ground, it must be informed by a robust science, coupled with legitimate political decision-making bodies and effective multi-stakeholder partnerships, at scale. Science and policy must therefore work more closely together for better governance to emerge as technical and financial expertise does not alone make for effective water policy and services management. Early involvement of good representation of critical stakeholders' interests and facilitation of CSO participation will be necessary to improve the decision- making process. This may include operationalizing River Basin Organizations, transparent and inclusive shared visioning processes for river basins with local authorities, industry, NGOs, civil society organizations, government. Better sharing of information systems and knowledge, public access databases and new technologies that facilitate that interface.

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The list of tentative issues:

- Stakeholder engagement for effective water governance
- Governance and performance of water and sanitation services
- Basin governance
- Integrity and Transparency

- Indicators/Principles on water governance to guide decision-makers' action

THEME 4.3: Cooperation for reducing conflict and improving transboundary water management

Water unites far more than it divides. Half of the world's population lives in transboundary river basins. Indeed, water is a potential catalyst for cooperation and peace from local to international levels. The conditions for sound and sustainable cooperation must use numerous means that include new forms of consensus building such as assisted negotiations, mediation and multi stakeholder participatory processes, legal instruments and frameworks at national and international levels, joint management practices and institutions and capacity building. Inter-governmental agreements at the global level, such as the UN Watercourses Convention and the UNECE Water Convention, may have an increasing role in facilitating more effective water cooperation in future, provided that they respond to the development needs of local communities and contribute significantly to more equitable and sustainable outcomes. Water is an important venue for second track diplomacy as it plays important roles in allowing dialogs among conflicting parties

The list of tentative issues:

● Effect of climate change on transboundary waters and their joint management

● Sustainable (economic) development of upper regions in transboundary basins (trade-off interests between upstream and downstream countries and between key sectors)

● [Scientific/Institutional] review of on-going transboundary cooperation/conflict issues and of the benefits of transboundary water cooperation

● Enlargement of the interested parties' involvement from riparian countries in transboundary basins

● Searching for more opportunities for cooperation in 'other' issues: water quality, ecosystems, fisheries, economic development etc.

● Monitoring and Information Sharing: Achievements, limitations and future directions

● Multi-national "Early Warning System" of chemical pollution or radioactive contamination in transboundary waters

● Linking international aid or foreign investment with transboundary water cooperation

● Comparative analysis of current joint management systems with respect to geographical/political/economic conditions

● Role of international organizations and peer countries in the conflict

resolution and greater cooperation

- The role of global and other legal and institutional frameworks for promoting transboundary cooperation on the ground

THEME 4.4: Water culture, justice and equity

Water has brought civilizations livelihood, sustenance and well-being. Water carries the collective memory of humanity. Water has been instrumental in our past development. It is equally the key to our future development as well to maintaining our life support on Earth, our home.Water debates often mirror debates of social ethics. For example, water as a common good, water and human dignity, water as facilitator of well-being, rights and responsibilities to access, water and social justice, wealth generation roles of water. In most major faith traditions, water has been a symbol of reconciliation, healing and regeneration. Water decisions have ethical dimensions. Knowledge embedded in this collective experience of humanity and gathered over generations can therefore provide important lessons for the future. Moreover, it is important to consider how different genders and different age groups each cultivate different relationships with water

The list of tentative issues:

- Recognize the regional characteristics of water
- Knowledge and experience related to water as a public good
- Capacity building for citizens
- Water and women

THEME 4.5: Enhancing education and capacity building

Education and training is essential to establish effective water resources management appropriate to local and regional needs. Developing and developed countries need enhanced capacity building. Education and training must be more than a one-way flow of rich to the poor. It must also include poor to poor, poor to rich as well. All require a demand/needs-based capacity development programs that enables and empowers civil society, community organizations and stakeholders to fulfill their roles in water governance and management.

The list of tentative issues:

- Water security for small nations
- Water and strategic defense policies
- Balance between technological driven economic growth and environmental

conservation

- Global inequality of quality of life and resources use
- Implication of water security on economic and social stability
- Role of education in securing water resources
- Water conflict mitigation to improve international trust and cooperation
- Global consequences of climate changes, particularly in science and engineering
- Green engineering and appropriate education tool
- Tools and technology for desalination, water reuse, and water reclamation
- Securing both water quality and quantity for water scarce/stress countries
- Technologies for water quality monitoring pertaining to water security
- Water Education for the next generation and teachers
- Training Program for underdeveloped countries on water resources and supply system
- Appropriate technology and education for sanitary water
- International twinning partnership between water operators for better drinking water quality

The closing ceremony of the Forum was held as usual with announcement of quantitative results. The Forum involved 168 countries, about 40,000 participants (according to other sources – 22,000) and organized 395 various sessions and events. The prize winners of awards were announced as well. The Kyoto World Water Grand Prize was awarded to the Environment and Public Health Organization (ENPHO) from Nepal. The Mexico Water Prize was awarded to Montevideo city Ricardo Alba from Columbia received the Daegu Water Prize for the use of plastic vessels for accumulation of rainwater with subsequent irrigation from them through drip system of water distribution and delivery.

In contrast to previous Fora, the Thematic Process was not finished with the closing of the Forum – work groups were established for each of 16 themes and their leaders were announced.

Korean leaders solemnly announced their readiness to advance solution of water problem all over the world.

The ceremony was concluded with passing of the Forum flag to Brazilian Water Authority, and Mayor of Brasilia city, where the next 8th World Water Forum will take place in March, 2018.

MINISTERIAL DECLARATION OF THE 7th WORLD WATER FORUM

We, the Ministers and Heads of Delegations assembled in Gyeongju, Republic of Korea, on 13 April 2015 on the occasion of the Ministerial Conference of the 7th World Water Forum, "Water for Our Future",

Reaffirming the United Nations General Assembly Resolutions entitled "The Human Right to Water and Sanitation"(A/RES/64/292), "The Human Right to Safe Drinking Water and Sanitation"(A/RES/68/157), "International Decade for Action, Water for Life, 2005-2015"(A/RES/58/217), "International Year of Water Cooperation, 2013"(A/RES/65/154) as well as the Human Rights Council Resolution entitled "The Human Right to Safe Drinking Water and Sanitation"(A/HRC/27/7),

Reaffirming the commitments made in the outcome document of the United Nations Conference on Sustainable Development ("Rio+20"), "The Future We Want",

Recognizing the key water-related challenges the world is facing as well as the urgent need to address them in a sustainable manner,

Welcoming the proposed water-related Sustainable Development Goals by the Open Working Group of the United Nations General Assembly, Recognizing the significant contributions previous World Water Fora and the Budapest Water Summit have made in committing to address water-related challenges, and reaffirming the Ministerial Declaration of the 6th World Water Forum, "Time for Solutions" held in Marseille, France, in 2012,

Further recognizing that sustainable management of water resources is a collective responsibility of all stakeholders,

Acknowledging that water resources is vital for sustainable development for all countries in the world, in particular, for developing countries including the least developed countries,

Stressing the need to promote good governance at all levels including basin level, based on, inter alia, water planning, public participation and the sound management of physical infrastructure and natural systems as a means to effectively tackle the water security related challenges,

Further recognizing the need to move from "solutions" identified during the previous World Water Fora for resolving water-related challenges to "implementation",

Taking into consideration, as appropriate, the "Daegu-Gyeongbuk Recommendations" which have been submitted to the Ministers, and welcoming the many contributions and efforts from the Thematic, Regional and Science and Technology Processes,

Declare our political will to translate our commitments made in this Declaration into national policies, plans and actions and to intensify our joint efforts to advance water-related cooperation at a global scale as follows:

1. We reaffirm that water is at the core of sustainable development and support the inclusion of one dedicated water goal and water-related targets in the Post-2015 Development Agenda. We note that Integrated Water Resources Management (IWRM) and its balanced relation with food and energy is important to effectively cope with increasing food and energy requirements towards sustainable development.

2. We reaffirm our commitment to the human right to safe drinking water and sanitation and ensuring progressive access to water and sanitation for all.

3. We stress that water is one of the major issues in tackling climate change. In this regard, we are committed to working together to ensure a successful outcome at the 21st session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC), in full recognition of the importance of water-related issues in climate change.

4. We recognize the leading role that riparian countries have on advancing cooperation on transboundary waters. We recognize that transboundary water cooperation based on win-win solutions can contribute to sustainable development and sound management of the transboundary waters between riparian countries and peace and stability of the nations. We are determined to further build upon the commitments and recommendations regarding transboundary water cooperation made in the previous World Water Fora and the 7th World Water Forum. We note the key role of the United Nations in promoting international water cooperation at the global level. Several of the principles of the relevant international Conventions on water can be useful in this regard.

5. Taking note of the outcome of the Third United Nations World Conference on Disaster Risk Reduction, we acknowledge the pressing need to take preventive actions and enhance resilience and preparedness towards water-related disasters at national, regional, and international levels. Developing systematic and effective response mechanisms is crucial to deal with increased risks and uncertainties of water-related disasters. We emphasize that IWRM supported by appropriate land management at the basin level is crucial to sustainable water management and planning. This includes enhancing prevention, resilience and preparedness towards water-related disasters, based on sound management of natural systems and adequate water infrastructures.

6. We underscore the importance of international cooperation and partnership between developed and developing countries, among international aid agencies, financial institutions and related intergovernmental organizations and other stakeholders. We highlight the partnership between public and private sectors, as appropriate, in tackling water-related global challenges, including climate related institutions such as the Global Green Growth Institute (GGGI), the Green Climate Fund (GCF) and the Global Environment Facility (GEF).

7. We underline the critical role of science and technology in paving the way from “solutions” for resolving water-related challenges to “implementation” by applying innovative and applicable technologies to policies as well as building sound and effective action plans linking science, technologies, policies and practices. We share a common understanding of the need to establish sound science-based public policies and regulations supported by appropriate institutional mechanisms. We stress in particular the importance of convergence of information and communications technologies (ICT) on smart water management and planning. We call upon nations to promote knowledge sharing and the development and deployment of scientific knowledge and innovative technologies to facilitate financing, investment, education, training and capacity building, particularly for developing countries and as well as to develop and diffuse concrete business models with a view to promote cooperation among water-related stakeholders. In this regard, we welcome the inauguration of the Science and Technology Process in the World Water Forum and resolve to build on its progress and further strengthen participation in the Process.

We support the results of the 7th World Water Forum and look forward to the “Implementation Roadmap”, along with its relevant Monitoring System, which could be considered as a reference for establishing implementation and monitoring guidelines for water-related goals in the Post-2015 Development Agenda. We further welcome the outcomes of the 7th World Water Forum’s Process, “Daegu-Gyeongbuk Water Action for Sustainable Cities and Regions” and its network of Local and Regional Authorities, as well as the ongoing process in the World Water Fora regarding establishment of the “Water Legislation Helpdesk” aimed to serve as a support tool for networks of parliamentarians.

We thank the Government and the people of the Republic of Korea, the Metropolitan City of Daegu, the Province of Gyeongsangbuk-do and the World Water Council for their support in organizing the Ministerial Conference of the 7th World Water Forum and recommend to the Government of the Republic of Korea to submit this Declaration to the United Nations Member States and appropriate bodies of the United Nations for their consideration.

SPEECH OF GURBANGULY BERDIMUKHAMEDOV, PRESIDENT OF TURKMENISTAN AT THE 7TH WORLD WATER FORUM (DAEGU, REPUBLIC OF KOREA, APRIL12, 2015)

Honorable Chairman,

Dear participants of the Forum,

Ladies and gentlemen,

Let me congratulate all the participants with the opening of the 7th World Water Forum and express my deep appreciation to Her Excellency, the President of the Republic of Korea, and the World Water Council for invitation to this important international event and for its excellent organization.

We have gathered to discuss the goals and objectives that without exaggeration are among the most relevant ones in the global agenda. Water issues cannot be addressed in isolation from the long-term world development agenda, the strategic goals of ecological and food security and the integrated system for sustainable energy.

In this context, I would like to reaffirm the Turkmenistan's strong commitment to agreements reached in the water segment of sustainable development during the UN Conference "RIO+20" and other international fora.

Also we see the value of the High-level Interactive Dialogue, which has been recently held at UN headquarters. I believe that its results can become the basis for development of the long-term UN Special Program on water issues.

At the same time, Turkmenistan reiterated on several occasions the need to create conditions for active promotion of the water diplomacy idea at international level.

We consider that it is through establishment of a new political and diplomatic form of multilateral communications, such as water diplomacy that would enable a consistent dialogue aimed at covering all issues related to generation and restoration of water sources and their sound and efficient use. I am sure that such synergies between national governments and international organizations will become a basis for drafting of the United Nations water document.

The UN Water Strategy could also be such a document. Taking the opportunity, I suggest the participants of the Forum to consider the Turkmen Initiative thoroughly.

Another important point to be stressed is the access to water. In this regard, we support the UN Initiative for recognition of the access to water as a fundamental human right. This approach is underlined by the universal right to use water resources and responsibility for their effective management.

All countries in the world in our understanding should be committed to encure the right to water.

Dear ladies and gentlemen!

It should be noted that for to several reasons, water issue in Central Asia is a major factor and in some cases determinant of regional processes, influencing the situation in general, implementation of socio-economic development plan, and solution of serious ecological issues. Under these circumstances, regional consensus is the only appropriate platform for effective cooperation of the states. Turkmenistan consistently advocates this approach, where water and water-energy issues in Central Asia are addressed on the basis of universally recognized norms of international law, mutual respect and interests of all countries in the region, and involvement of international organizations.

Recognizing that solution of water issues on global scale is complicated due to climate change, Turkmenistan initiated the establishment of the Regional Technology Center for climate change in Ashkhabad under the UN aegis and with its active involvement. We believe that water issues could be a separate activity of this Center. We are convinced that establishment of such center is dictated by the current situation in Central-Asia.

This year Turkmenistan takes on the Presidency in the Interstate Commission for Sustainable Development in Central Asia. We intend to actively support interstate

cooperation in tackling water issues in the region and make them a priority in cooperation with international organizations.

Distinguished participants of the Forum!

Turkmenistan supports the goals and objectives set up on agenda of the present Forum.

We are ready for active interactions with other countries, sharing experience, and wider cooperation with international organizations.

I wish all the participants of the Forum success and fruitful work.

SPEECH OF EMOMALY RAHMON, PRESIDENT OF TAJIKISTAN AT THE 7TH WORLD WATER FORUM (DAEGU, REPUBLIC OF KOREA, APRIL12, 2015)

Honorable Chairman,

Distinguished participants of the Forum,

Ladies and gentlemen,

First of all, let me express my sincere gratitude to the Government of the Republic of Korea for invitation to such an important global water event and for creation of excellent conditions and hospitality.

Undoubtedly, the theme of the Forum – "Water for our Future" – is sync and in line with the current global tendencies for defining our future actions for the post-2015 period, in which, in our opinion, water should be given a key priority.

Tajikistan is an initiator of a series of important UN General Assembly Resolutions on water. Two of them, the International Decade for Action "Water for life" (2005-2015) and the International Year of Water Cooperation (2013), were declared by me for the first time during such significant events as the 3rd World Water Forum in Kyoto and during the 5th World Water Forum in Istanbul.

Dear participants of the Forum,

As part of the Millennium Development Goals, a certain progress was achieved in tackling water issues; however, the present global challenges show hardly optimistic forecasts.

We agree that it is necessary to undertake urgent measures focusing mainly on real actions. The analysis shows that yet our activities are focused on investments in the so-called "soft" component, while infrastructure projects play major role in this process.

Another important point is that our future actions should be oriented to green economy, where water resources, as a renewable energy source, should take rightful place. Today, hydropower accounts for 20% of the world's electricity production, while only about 45% of economically profitable hydropower potential is used.

In this context, we underline the importance of "water-energy-food nexus" that ensures balance of all sectoral interests. Application of this approach surely provides a solid basis for good water cooperation at the intersectoral level, as wells as in transboundary river basins.

Sustainable financing is crucial for achievement of water goals. Unfortunately, financial and economic crises over the past decade have undermined efforts of the countries in appropriate financing of the water sector. In this regard, establishment of different national, regional and global funds and other initiatives on the improvement of water financing is relevant to support developing countries, including less developed and small island developing states, in tackling these issues.

Dear ladies and gentlemen,

Tajikistan is one of the leading states in terms of available water per capita. Approximately 60% of water resources in Central Asia are generated in Tajikistan.

However, underdeveloped infrastructure and limited financing do not allow the country to fully develop available water resources for its national economy.

Despite enough water resources, today, only around 57% of population has access to safe drinking water and about 30% to improved sanitation.

Water-related disasters remain a serious problem for Tajikistan. 93% of its territory are mountains with rugged topography. Annually, mudflows and floods cause huge losses to national economy, and sometimes lead to loss of human lives.

Distinguished participants of the Forum,

I would like to note that all the above-mentioned water issues that Tajikistan faces are representative for other states in Central Asia as well.

It is estimated that in the region water availability per capita will be at critical point of less than 1,700 m^3/year by 2030. For reference, this number was about 6,000 m^3/year in the 1960s.

Agricultural water supply is another topical issue for the region. Irrigation of more than 8.5 million ha of land in light of hydrological variability and increased frequency of dry years and droughts becomes more and more complicated.

In this context, efficient water use, especially through adoption of state-of-the-art water saving technologies, modernization of irrigation and drainage systems and application of new irrigation approaches are of critical importance.

This approach promotes efficient use of natural resources, contributes to and reduction of emissions, and fosters green economy oriented to efficient use of renewable energy.

Honorable Chairman,

Distinguished participants of the Forum,

The International Decade for Action “Water for Life” (2005-2015) declared by the UN ends this year. In this context, there is a need to make an overall assessment of activities undertaken over the Decade, identify difficulties and challenges in achievement of the Decade’s goals and to draw a future action plan for the post-2015 period.

Unquestionably, implementation of the International Decade “Water for Life” created a solid basis for consolidation of our joint efforts at the local, national, regional and international levels for achievement of water goals.

However, present global challenges and threats, population growth, climate change, more frequent natural disasters, water scarcity and, consequently, rise of poverty, diseases, child and maternal mortality call for mobilization of our efforts and appropriate measures in this field.

To a certain extent, the same challenges hampered effective achievement of the goals and objectives of the International Decade “Water for Life”.

Therefore, today I would like to propose the second International Decade under the slogan “Water for Sustainable Development”.

I believe that by declaring the next Decade we will continue implementing measures set as part of the International Decade for Action “Water for Life”, while adding new activities and efforts for achievement of Sustainable Development Goals. We count on the support of the world community to this proposal.

Dear ladies and gentlemen,

In conclusion, I would like to remind that the High-level International Conference on implementation of the Decade will be held in June 9-11, 2015 in Dushanbe pursuant to the UN General Assembly Resolution “International Decade for Actions “Water for Life” 2005-2015 and future efforts on sustainable development of water resources”, which was approved in December, 2014.

I presume that the Dushanbe conference will make an overall assessment of implementation of the International Decade for Action “Water for Life” and allow planning objectives for sustainable development of water resources with the participation of representatives of states, regional and international organizations, NGOs and private sector

Taking this opportunity, on behalf of the Government of the Republic of Tajikistan I would like to invite all concerned parties to take part in this event and contribute to its success.

Thank you for attention.

SESSION "DEVELOPMENT OF COOPERATION IN THE ARAL SEA BASIN TO MITIGATE CONSEQUENCES OF THE ENVIRONMENTAL CATASTROPHE"

The session was organized by the Executive Committee of the International Fund for saving the Aral Sea (EC IFAS) in cooperation with the Global Water Partnership for Central Asia and Caucasus (GWP CACENA).

Mr.Sh.R.Khamraev, Deputy Minister of Agriculture and Water Resources of the Republic of Uzbekistan and the acting Chairman of EC IFAS, chaired the session. Mr.Khamraev opened the session and gave the floor to Thierry Umbehr, SDC Regional Advisor, who made a presentation on IFAS activities contributing to implementation of the Aral Sea Basin Program.

Working moments during the session on the Aral Sea

Donors fully support ASBP-3 and are ready to work together with EC IFAS and governments of IFAS member-states to implement the program. The objective is to ensure better and comprehensive management and share water resources for the benefit of all stakeholders.

Mr. Thierry Umbehr highlighted that for more efficient use of existing resources and additional funding, coordination of donors needed to be brought to a brand new level. EC IFAS is to play a key role in donor coordination through information exchange, research efforts, monitoring and assessment.

Then Iskander Abdullaev, CAREC Executive Director, made a review of the

issues related to the Aral Sea and the ways of their solution. Vast salt desert covering almost 5 million ha, degradation and sharp reduction of biodiversity are among the main consequences of drying up of the Aral Sea in addition to decreased water volumes and water surface, increased water salinity and changed patterns of salinity.

The Heads of Central Asian states signed a joint statement, highlighting the major role of IFAS in coordination of actions and solution of fundamental problems of cooperation among the states in Central Asia and donor community, including international financing institutions.

The states of Central Asia affirmed their interest in development of mutually acceptable mechanisms for integrated use of water resources and protection of the environment for the benefit of all states in the region.

Presentation of Abdullaev I., CAREC Executive Director

In the conclusion of this block of the session, Mr. Khamraev made a presentation on IFAS work during the period of presidency of Uzbekistan.

He noted that the Heads of Central Asian States, while acknowledging the situation at hand, founded the International Fund for saving the Aral Sea (IFAS). Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan are the state-founders of the IFAS. The IFAS and its member organizations aim to strengthen integration and cooperation for efficient use of water resources in order to achieve sustainable development and adapt to climate change in the region.

Based on the decision of the Heads of States of 28 April 2009, Executive Committee of IFAS (EC IFAS) prepared draft ASBP-3, which was approved by the Board of IFAS in 2011. Under the presidency of Uzbekistan almost 300 national and regional projects with the total cost of more than US$8.5 billions are implemented as part of ASBP-3.

Mr.Sh.R.Khamraev, the acting Chairman of EC IFAS

During the open discussion the following participants made reports:

Mr. E.N.Nisanbaev, Deputy Minister of Agriculture of Kazakhstan, on contribution of Kazakhstan to IFAS activity

Mr. M.Kazakov, representative of the Republic of Tajikistan at IFAS, on contribution of Tajikistan to IFAS activity

Mr. M.Akmuradov, representative of Turkmenistan at IFAS, on contribution of Turkmenistan to IFAS activity

Mr. N.Sheraliev, Director of GEF Agency, on contribution of Uzbekistan to IFAS activity

Mme. Olivia la O' Castillo, member of the United Nations Secretary-General's Advisory Board on Water and Sanitation, President of Sustainable Development Solutions for Asia and the Pacific, encouraged the world community to assist states of the Aral Sea Basin in implementation of ASBP-3.

Ms. Natalia Alexeeva, GWPO Network Officer

Mr. William Rex, lead water resources specialist at the World Bank, confirmed the plans of the Bank to assist the IFAS in implementation of the Aral Sea Basin Program.

Mr. Seppo Rekolainen, Finnish Environment Institute, confirmed the plans of Finland to support less developed countries in Central Asia – Kyrgyzstan and Tajikistan - in strengthening the water sector.

Ms. Natalia Alexeeva, Senior GWPO Network Officer, briefly reviewed the activity of the network in the region.

Mr. Vladimir Mamaev, UNDP Regional Coordinator, confirmed the UN plans to continue supporting ASBP-3, especially since the regional UNDP office moved from Bratislava to Istanbul and became closer to Central Asia. This is to enhance its effectiveness.

Prof. Dukhovny V.A. presented the forecast of the main development trends in the Aral Sea Basin based on model forecasts and the ways for future survival. He underlined that the Amudarya River Basin, where serious water deficit is expected during 2030-2050, is to become priority of regional cooperation and donor attention. He also presented key directions for regional water strategy in accordance with the Aral Sea Program 3. He also underlined a need to focus on deltas and the Aral Sea itself.

Prof. Dukhovny V.A. – Head of SIC ICWC

Prof. Kipshakbaev N.K. – Head of Kazakh branch of SIC ICWC as one of the organizers of ICWC – underlined the need to strengthen regional organizations

Ms. Barbara Janusz – Pawletta, German-Kazakh University, briefly presented educational activities of the university under training curricula on integrated water resources management.

Elena Tsay, SIC ICWC, young specialist, participated in the World Youth Parliament for Water at the invitation of the Forum. She assured the participants of the session that young generation is ready to be strongly engaged in solution of the Aral

Sea problems.

Partners of GWP CACENA with representatives from Finland

Finally, Sh.R.Khamraev read draft resolution of the session, which was unanimously adopted by the participants. Thereupon the session was closed.

FINAL DOCUMENT

The Executive Committee of the International Fund for Saving the Aral Sea (IFAS) in collaboration with the network of the Global Water Partnership in Central Asia and Caucasus (GWP CACENA) organized a special issue session "Development of Cooperation in the Aral Sea Basin to Mitigate Consequences of the Environmental Catastrophe" in the framework of the 7th World Water Forum on 14th of April 2015 in Gyeongju, the Republic of Korea.

Within the special issues session, participants:

- Agreed that current challenges observed globally, including climate change, unprecedented increase in the demand for water, increasing water scarcity, reduction and pollution of fresh water, increased frequency of water-related disasters, intensive glacier melting, degradation of water ecosystems, desertification, environmental degradation, disruption of the ecological balance are characteristic of the Central Asian Region and create significant problems related to its sustainable development;

- Recognized that as a result of the Aral Sea desiccation in the countries of the basin, especially in the Aral Sea Region, a complex of complicated environmental, socio-economic and demographic problems emerged that are global by origin and level of consequences;

- Stressed that the International Fund for Saving the Aral Sea, established in 1993 by five Central Asian states, is the only regional body supported at the highest political level, which provides the unique platform for regional and international cooperation to address the problems of the Aral Sea Basin;

- Noted the urgency of implementing the Third Aral Sea Basin Program (ASBP-3) approved by the Governments of the Member States of IFAS and aimed at ensuring more effective and integrated management of water resources, improving the environmental situation and socio-economic conditions, as well as strengthening cooperation in Central Asia;

- Recognized that the situation in the Aral Sea basin in the field of water management, environmental and socio-economic conditions remains difficult despite the efforts of the Central Asian countries to address the problems of the Aral crisis and mitigate the consequences of the Aral Sea desiccation;

- Noted that the countries of the region with the assistance and support of international organizations, financial institutions and governments of donor-countries are taking steps to address the problems of the Aral Sea Basin and improve the environmental and socio-economic situation in general.

Following the discussions, for the effective and rational use of water resources, environment protection, socio-economic and sustainable development in the region, implementation of practical actions to mitigate the effects of the Aral Sea crisis, further strengthening of the regional cooperation to confront today's challenges and solve common problems in the Central Asian Region the participants of the special session proposed the following areas:

1. ***Strengthening of cooperation within IFAS*** – to ensure close interaction between the Member States of IFAS in order to address water, environmental and socio-economic problems in the Aral Sea Basin; strengthen the potential of the executive bodies of IFAS; and utilize the capacity and advantages of IFAS in addressing regional issues. The measures to promote and develop dialogue within the IFAS should be supported in order to achieve consensus between the countries.

2. ***Ensuring implementation of the ASBP-3*** - it is necessary to take urgent measures to implement the regional and national ASBP-3 programs and projects, and, in this regard the financial and technical assistance from international organizations, financial institutions and governments of donor-countries should be extensively involved; to ensure greater involvement of the executive bodies of IFAS for more effective implementation of ASBP-3 regional projects.

3. ***Solution of the Aral Sea problems*** - given the scale of the Aral Sea crisis and

the problems to be solved, it is necessary to consolidate the efforts of the international community to eliminate the negative consequences of the Aral Sea desiccation and reduce its damaging effects on the environment and livelihoods of millions of people living in the area of environmental disaster. In this case, important tasks are to create conditions for reproduction and preservation of the gene pool and public health, development of social infrastructure, raising the quality and the living standard of people, preservation and restoration of biodiversity of flora and fauna.

4. ***Enhancing international cooperation*** – to develop mechanisms for effective interaction and cooperation of the Executive Committee of IFAS, the executive bodies of the Interstate Commission for Water Coordination and the Interstate Commission for Sustainable Development with international organizations and financial institutions, as well as the donor community in order to attract their attention and efforts to address the problems of the Aral Sea Basin; to cooperate actively with the UN agencies, considering the UN General Assembly Resolution 63/133 dated December 11, 2008 on granting to IFAS the observer status in the General Assembly.

Given the relevance of the above areas the special session participants call on international organizations and financial institutions, as well as donor community to support IFAS and Central Asian countries in the implementation of programs and projects in the Aral Sea Basin and the Aral Sea area.

In conclusion, the session participants expressed their gratitude to the Government of the Republic of Korea and the Forum Organizing Committee for the support and creation of conditions for preparation and conducting of the session under the Regional Process of the 7th World Water Forum.

WORKSHOP "IWRM IN ASIA- PACIFIC REGION"

Prior to the 7th World Water Forum the workshop "Integrated Water Resources Management in Asia-Pacific region" was held on February 18, 2015 in Bangkok (Thailand). The Network of Asian River Basins Organizations (NARBO, Japan) hosted the workshop.

The workshop involved 12 countries from the region (Japan, Thailand, Philippines, Malaysia, India, Uzbekistan, China, Myanmar, etc.) and presented the IWRM visions of different national basin organizations.

This event was opened with the presentation of Dr. Apichart Anukularmphai, President of Thailand Water Resources Association, who described the three key principles of IWRM in Thailand:

- Environmental conservation through implementation of the National Program for water resources management, the National Water Policy, financing of water organizations and regular revision of Water Law;
- Institutional strengthening of the River Basin Committees and/or Water Resources Departments;
- Managerial tools, which include continuous water dialogue, involvement of and IWRM training for all stakeholders.

Then a representative of the Basin Organization presented the main ideas for sustainable development of IWRM in the Moon River (Thailand) case-study, in particular:

- Status of River Basin Organization (RBO);
- The level of managers in RBO;
- Involvement of water consumers and users, given their profiles;
- Regular environmental assessments;
- Sustainable functioning of a river basin;
- Human and technical capacities building;
- Institutional development and strengthening of planning;
- Timely and equitable water distribution;
- Coverage of all costs and financial soundness;
- Dissemination of best practices, knowledge and data.

The presentation of a representative from China (Prof. Qiatao Cheng) was devoted to water pollution issues in the context of urban development and industrial

production. Particularly, he identified three "common threads" in water resources management that are critical in China and need to be solved as soon as possible:

- Constant increase of water requirements due to growth of water users;
- Ineffective water use at all levels;
- Heavy water pollution in context of industrial development and urbanization.

Therefore, four key systems were drafted that should be regulated by all stakeholders:

- System of general control over water use;
- System of control over effective water use;
- System of control over water pollution;
- System of assessing and specifying the responsibilities in the water management sector.

Priyanka Dissanayak, GWP Regional coordinator in South Asia, presented the GWP vision on IWRM in the context of post-2015 Sustainable Development Goals using 4 country case-study: Nepal, Bangladesh, Pakistan, and Sri Lanka. She identified the following aims for these countries:

- Equitable water distribution between countries, effective transboundary planning and cooperation among river basin organizations, strengthening of their roles, expertise and capabilities;
- Institutional strengthening of these organizations in the region;
- Promotion and development of cooperation between riparian countries sharing one river basin using the "from mountain to the sea" approach;
- Strengthening of cross-sectoral cooperation for implementation of IWRM and its guaranteed regulation at the governmental level.

Philippines's representative presented the project on young water managers training ("Support to the youth in Asia"), which gathered young people aged from 15 to 25 from 10 countries. The project was implemented by UNEP, TUNZA and SEAYEN and aimed at training of the youth in water management sector, as well as at development of small projects by the participants of the project. Young participants of the project had an opportunity to present their ideas to water professionals from several countries for its future implementation in cooperation with distinguished organizations.

Boris Gozhenko, representative from Central Asia, in his presentation of addressed the IWRM vision in this region. Here focus is placed on generalization of knowledge and practices of water managers, water consumers and users, and its transformation into real IWRM tools. He underlined that thanks to several projects the importance of IWRM was recognized in all countries of the region, where the main problem is transboundary water allocation. Next, a series of projects were presented (IWRM-Fergana, National Plan on IWRM in Kazakhstan, IWRM in Zarafshan Valley,

RESP) that managed to reduce water use by 10-15% through only institutional changes, without application of new technologies.

It was noted that successful implementation of IWRM required that this concept was understood at least by 25-30% of stakeholders, including policy-makers. Today, this "critical mass" is about 5%. In other words, it is necessary to inform all stakeholders about a need for IWRM and strict adherence to its objectives and principles. An idea was voiced that IWRM should be like a traffic code that everyone must obey regardless of country, water availability and domestic or foreign political situation. The proposal was well accepted by all participants of the workshop.

The workshop was concluded with the results and ideas for the 7th World Water Forum in Korea. The main theses to be discussed at the Forum were outlined as follows: 1. Too little water 2. Too much water 3. Too polluted water.

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