Interstate **C**ommission for **W**ater **C**oordination in **C**entral Asia	**BULLETIN № 2 (77)**	June 2018

CONTENTS

RESOLUTION OF THE UN GENERAL ASSEMBLY A/72/L.42 ON COOPERATION BETWEEN THE UNITED NATIONS AND THE INTERNATIONAL FUND FOR SAVING THE ARAL SEA

Seventy-second session

Agenda item 19

Sustainable development

The General Assembly,

Referring to the Articles of the Charter of the United Nations that encourage measures for regional cooperation to advance the purposes and principles of the United Nations,

Referring also to its resolution 63/133 of 11 December 2008, by which it granted the International Fund for Saving the Aral Sea observer status in the General Assembly,

Acknowledging that the negative humanitarian, environmental and socioeconomic consequences of the Aral Sea Basin tragedy go well beyond the region and represent a global concern,

Welcoming the efforts of the States members of the International Fund for Saving the Aral Sea to attain objectives consistent with the purposes and principles of the United Nations,

Convinced that the activities of the International Fund for Saving the Aral Sea and its bodies should take into account the interests and needs of all the countries of Central Asia,

Reaffirming that achieving international cooperation in solving international problems of an economic, social or humanitarian nature is one of the purposes of the United Nations,

Referring to the relevant resolutions of the Security Council, including resolution 1631 (2005) of 17 October 2005, as well as statements by the President of the Council in which the Council emphasized the importance of developing effective partnerships between the United Nations and regional and subregional organizations, in accordance with the Charter,

Welcoming the commitment of the International Fund for Saving the Aral Sea to intensifying and deepening its cooperation with the agencies, programs and funds of the United Nations system,

Convinced that strengthening cooperation between the United Nations and the

International Fund for Saving the Aral Sea will advance the purposes and principles of the United Nations,

1. Notes the need for further improvement of the activities of the International Fund for Saving the Aral Sea to strengthen regional cooperation in such areas as social and economic development; environmental protection and response to natural disasters; water resources management; adaptation to climate change and mitigation of its consequences; exchange of information; science and innovation; and other related areas;

2. Also notes the importance of strengthening cooperation and coordination between the United Nations system and the International Fund for Saving the Aral Sea, and invites the Secretary-General to hold for that purpose regular consultations with the Chair of the Executive Committee of the International Fund for Saving the Aral Sea, making use of appropriate inter-agency forums and formats, including consultations between the Secretary-General and the heads of regional organizations;

3. Invites the specialized agencies and other organizations, programs and funds of the United Nations system, as well as international financial institutions, to develop their cooperation with the International Fund for Saving the Aral Sea;

4. Requests the Secretary-General to report to the General Assembly at its seventy-third session on the implementation of the present resolution;

5. Decides to include in the provisional agenda of its seventy-third session, under the item entitled “Cooperation between the United Nations and regional and other organizations”, the sub-item entitled “Cooperation between the United Nations and the International Fund for Saving the Aral Sea”.

April 16, 2018

JOINT STATEMENT OF THE PRESIDENT OF THE REPUBLIC OF UZBEKISTAN SH.M.MIRZIYOYEV AND THE PRESIDENT OF TURKMENISTAN G.M.BERDYMUKHAMEDOV

Upon the invitation of the President of the Republic of Uzbekistan Shavkat Mirziyoyev, the President of Turkmenistan Gurbanguly Berdymukhamedov paid a state visit to the Republic of Uzbekistan on April 23-24, 2018.

During the fruitful talks held in an open, friendly and constructive atmosphere, the Heads of State have exchanged opinions on bilateral multifaceted cooperation, as well as interactions on the regional and international arena. The Parties have noted the similarity or closeness of positions on all issues addressed.

The Presidents have positively assessed the results achieved in various areas of cooperation for 25 years since the establishment of diplomatic relations between the Republic of Uzbekistan and Turkmenistan.

The Parties, having discussed implementation of previously agreed treaties and signed bilateral documents, highlighted the high dynamics of interstate relations in politics, trade and economy, transport and communications, science and technology, culture and humanitarian area, and others.

The Heads of State have welcomed a new strategic level of the Uzbek-Turkmen relations to further strengthen historical friendly and good-neighborhood ties between two fraternal nations.

The heads of state, expressing confidence that stable and trustful relations between the Republic of Uzbekistan and Turkmenistan serve vital and long-term interests of both states and is a main factor of peace, stability, and security in the region, building upon long-centuries history and cultural solidarity of both states, and following provisions of the Agreement between the Republic of Uzbekistan and Turkmenistan on Friendship, Cooperation, and Collaboration of January 16, 1996 and the Agreement between the Republic of Uzbekistan and Turkmenistan on Strategic Partnership of March 6, 2017, confirm their commitment to actively develop and strengthen strategic partnership, friendship, good neighborhood, and trust between the states based on respecting each other’s Independence, territorial integrity, border inviolability, noninterference in internal affairs, equality, and mutual benefits.

The Parties have expressed interest in further strengthening interactions and mutual support under umbrella of international and regional organizations, first of all, the United Nations and confirmed the need to increase its role in ensuring sustainable development, security, and stability, resolving global and regional problems based on aims and principles of the UN Charter.

The heads of state have underlined relevance of the UN General Assembly Resolutions “International Neutrality Day” of February 2, 2017, “Role of the UN Regional Center for Preventive Diplomacy for Central Asia” of November 17, 2017, and “Strengthening ties between all types of transport to achieve Sustainable Development Goals” of December 20, 2017. Turkmenistan, initiator of these documents, welcomes co-authorship of the Republic of Uzbekistan.

The Turkmen side has supported initiatives of the Uzbek side to develop and promote the UN General Assembly Resolution “Strengthening Regional and International Cooperation to Ensure Peace, Stability, and Sustainable Development in the Central Asia Region”, as well the organization of the second Summit of the Islamic Cooperation Organization on Science and Technologies in 2020.

The Parties have expressed readiness to cooperate under the Agreement on Nuclear Weapon-free Zone in Central Asia to support UN international efforts on ensuring nuclear non-proliferation regime.

The Parties consider the International Fund for Saving the Aral Sea (IFAS) as a universal platform for interaction of the regional countries to implement environmental and scientific and technical projects and programs aimed at environmental rehabilitation of the areas affected by the Aral catastrophe and have expressed readiness to further develop cooperation under the chairmanship of Turkmenistan in IFAS.

The Presidents have underlined the importance of agreements reached during the meeting of IFAS Board on January 30, 2018 in Ashgabat. The Parties are ready to jointly prepare and host the regular Summit of Heads of IFAS member-states in August 2018 in Ashgabat.

The Presidents have confirmed that they have the same position on the development of the equitable water use system in Central Asia, which resolves energy and water problems, including construction of new hydraulic structures on transboundary rivers, according to generally recognized international law norms and taking into account interests of all the Central Asian states.

The importance of open dialogue, strengthening mutual understanding, developing constructive cooperation, and searching mutually acceptable, just, and reasonable decisions was underlined.

The Heads of State have underlined that transboundary water resources of Central Asia are of common heritage for the peoples; reasonable and equitable use of these resources would impact the lives of tens of million people, stability, and prosperity in the region.

The Heads of State have highly assessed the work of the Joint Uzbek-Turkmen Intergovernmental Commission for Delimitation and Demarcation of State Border.

The Heads of State have underlined that they would further take measures so that the State Border between the Republic of Uzbekistan and Turkmenistan remained the border of friendship, neighborliness, and cooperation of two fraternal nations.

The Parties have noted the need to further develop cooperation in the area of control over international terrorism, extremism, illegal migration, drug and psychotropic trafficking, transnational organized crime, and other challenges and threats to international security both at bilateral and international level.

The Heads of State are ready to continue supporting peace and stability in Afghanistan, while respecting the way chosen by the Afghan people towards political and socio-economic development of the country.

The Presidents have welcomed the organization of the 7th Regional Conference on Economic Cooperation in Afghanistan (RECCA-VII) on November 14-15, 2015 in Ashgabat and the International High-level Conference on Afghanistan "Peace Process, Security Cooperation and Regional Connectivity" on March 26-27, 2018 in Tashkent. They mentioned these events to be important for further strengthening regional cooperation in support of sustainable development and stability in Afghanistan and the region as a whole.

The Parties have mentioned successful organization of the International Conference on Ensuring Security and Sustainable Development in Central Asia under the UN auspice "Central Asia: shared past and common future, cooperation for sustainable development and mutual prospects" on November 10-11, 2017 in Samarkand.

The Parties support initiatives of both states to promote regional cooperation in order to address the pressing issues and make mutually beneficial decisions for the interests of the Central Asian states and nations.

The Presidents have underlined strategic character of further expansion of mutually beneficial trade and economic cooperation between the Republic of Uzbekistan and Turkmenistan.

In this context, the Parties have underlined the importance of increasing further mutual trade and expanding it through inclusion of value-added products, as well as of fulfilling the Agreement of March 6, 2017 between the Republic of Uzbekistan and Turkmenistan on economic cooperation over 2018-2020 and its Economic Cooperation Program.

The Heads of State have positively assessed the results of the 14th meeting of the Joint Uzbek-Turkmen Commission for Trade and Economic, Scientific and Technical, and Cultural Cooperation held on March 1, 2018 in Tashkent. The need to increase the role of the Commission as a coordination body was underlined in developing bilateral relations in trade and economy, transport and communications.

Organization of the National Industrial Exhibition (Made in Uzbekistan) of the Republic of Uzbekistan in Ashgabat on March 29-30, 2018 and the National Exhibition of Turkmenistan and Uzbek-Turkmen Business Forum on April 23-24, 2018 in Tashkent was highly assessed. It facilitated expansion of contacts among business circles and strengthening of bilateral trade and economic ties.

The Presidents have reaffirmed that deep cooperation on transportation and transit is vital for the development of international trade between the countries and

regions.

To raise competitiveness and attractiveness of international transport routes going through the territory of both states, the Parties have once again confirmed readiness to continue systematic and mutually beneficial cooperation aimed at further optimization of tariffs and provision of preferential benefits for goods transit.

The Parties have underlined the need to fully utilize the high capacity of automobile and railway bridges "Turkmenabad-Farab", which would develop transit potential of both states and create favorable conditions for manifold increase in goods transit via Turkmenistan and Uzbekistan to the South and Central Europe, Middle East, South and South-Eastern Asia.

The Parties welcome the initiative on construction of railway roads in the region that would create additional conditions for the development of intercontinental transport corridors.

The importance of implementation of the Agreement on establishment of the International Transport and Transit Corridor between the Governments of the Islamic Republic of Iran, Oman, Turkmenistan, and Uzbekistan (Ashgabat Agreement) of April 25, 2011 was highlighted.

In this context, the Heads of State have agreed to conduct the meeting of Ministers of Foreign Affairs and Transport of the parties of this Agreement in the first half of 2018 for its timely implementation.

The Heads of State, understanding responsibility for preservation and strengthening of centuries-long friendship, brotherhood, and cooperation between two countries, have affirmed their commitment to further deepen bilateral ties in culture, science, art, sport, and other areas.

The Parties have welcomed the signing of the Program on Scientific and Technological Cooperation between the Governments of Uzbekistan and Turkmenistan over 2019-2021.

Mr. Mirziyoyev congratulated Mr.Berdymukhamedov with successful organization of the V Asian Indoor and Martial Arts Games in Ashgabat on 17-27 September, 2017. The Parties are ready to share experience in organization of such international sports competitions.

The Parties have mentioned that mutual cultural exchange facilitates strengthened friendship and increased mutual understanding.

The Days of Culture of the Republic of Uzbekistan were successfully held in Turkmenistan in November 2017.

It was underlined that the Ashgabat park and the monument to the Turkmen poet Makhtumkuli in Tashkent is a bright example and symbol of friendship of two nations.

The Presidents have underlined the importance of interactions between regions of both states. The Parties have welcomed the exchange of delegations between local authorities (khokimiyat) of the Bukhara and Lebap provinces, as well as between

Khorezm and Dashoguz provinces.

The Parties will further create favorable conditions to develop national language, culture, traditions, and customs, support translation of works of classic literature and contemporary writers, take required measures for ensuring rights and interests of citizens of one country on the territory of the another country.

The Heads of State express confidence that fruitful negotiations held and bilateral agreements signed would further strengthen traditionally friendly and good neighborly relations between the Republic of Uzbekistan and Turkmenistan based on equality and mutual benefit.

The President of Turkmenistan Mr. Gurbanguly Berdymukhamedov has expressed gratitude to the President of Uzbekistan Mr. Shavkat Mirziyoyev and people of Uzbekistan for warm welcome and hospitality and invited the leader of the country to Turkmenistan at the time of his convenience.

President of the	President of
Republic of Uzbekistan	Turkmenistan
Shavkat Mirziyoyev	Gurbanguly Berdymukhamedov

April 23, 2018, Tashkent

MINUTES OF THE 73rd MEETING OF THE INTERSTATE COMMISSION FOR WATER COORDINATION (ICWC) OF THE REPUBLIC OF KAZAKHSTAN, KYRGYZ REPUBLIC, REPUBLIC OF TAJIKISTAN, TURKMENISTAN AND REPUBLIC OF UZBEKISTAN

May 3, 2018 Kyzylorda, Republic of Kazakhstan

Chairman:

Nysanbayev Yerlan Nuralievich	Vice Minister of Agriculture, Republic of Kazakhstan

ICWC members:

Rakhimzoda Sulton Nurmakhmadpur	First Deputy Minister of Energy and Water Resources, Republic of Tajikistan (MEWR RT)
Bayramdurdyyev Magtymguly	Deputy Minister of Agriculture and Water Resources, Turkmenistan
Khamraev Shavkat Rakhimovich	Minister of Water Resources, Republic of Uzbekistan

ICWC executive bodies:

Dukhovniy Viktor Abramovich	Director, Scientific Information Center (SIC) of ICWC
Ziganshina Dinara Ravilyevna	Deputy Director, Scientific Information Center (SIC) of ICWC
Babadjanova Malika Pulatovna	Head, ICWC Secretariat
Kholkhuzhaev Odil Akhmedovich	Head, BWO Syrdarya
Artikov Kakhraman	Deputy Head, BWO Amudarya

Invited:

Kojaniyazov Serik Salavatovich	Deputy mayor (akim) of the Kyzylorda province, Republic of Uzbekistan
Baydjanov Guyzgeldy. Nazargeldyyevich	Chairman, Executive Committee of IFAS
Suyundikov Maksat Zhumatayevich	Adviser to the Ministry of Foreign Affairs, Republic of Kazakhstan
Beknazarov Askar Muraddulayevich	Second Secretary, Ministry of Foreign Affairs, Republic of Uzbekistan
Jurayev Ilkhom Usmanovich	Representative of the Republic of Uzbekistan in EC IFAS
Kipshakbaev Nariman Kipshakbaevich	Director, Kazakh branch of SIC ICWC
Bekniyaz Bolat Kabykenovich	Director, Executive Board of IFAS, Republic of Kazakhstan
Zhienbaev Musilim Rysmakhanovich	Head, Transboundary Rivers Division of Transboundary Rivers Department, Ministry of Agriculture, Republic of Kazakhstan
Khasanzoda Khomid Usmonovich	Deputy Director, Agency of Land Reclamation and Irrigation at the Government of the Republic
Ubaydullozoda Golib Khochon	Deputy Chairman, Barki Tochik OJSC, Republic of Tajikistan
Mommadov Begench Amanovich	Head, Water Use Department, Ministry of Agriculture and Water Resources, Turkmenistan
Charyev Dovran	Leading expert, Land Reclamation Division, Ministry of Agriculture and Water Resources of Turkmenistan
Kuchkarov Sharifjon Zikrillayevich	Head, Water Balance and Advanced Water Saving Technologies Division, MWR of the Republic of Uzbekistan
Beglov Iskander	Head, Information Division of SIC ICWC

Ferdinandovich	
Kurbonov Azamat Ilkhomuglu	Deputy Head, Technical Division of BWO Syrdarya
Karlykhanov Adilkhan Karlykhanovich	Head, Aralo-Syrdarya Basin Inspection for Water Use Regulation and Protection, Ministry of Agriculture of the Republic of Kazakhstan
Sagadiev Daniyar Gabitovich	Chief expert, Transboundary Rivers Division, Ministry of Agriculture of the Republic of Kazakhstan
Egenov Meyrbek Duysenbayevich	Director, Republican State Enterprise (RSE) Kazvodkhoz
Arystanbayev Bulat Sabyrovich	Director, Kyzylorda branch of RSE Kazvodkhoz, Committee for Water Resources, Ministry of Agriculture of the Republic of Kazakhstan
Seysenov Sembay Baymenovich	Director, "Su Metrologiya" branch, RSE Kazvodkhoz, Committee for Water Resources, Ministry of Agriculture of the Republic of Kazakhstan

Agenda of the 73rd ICWC meeting

1. Results of the non-growing season 2017-2018 in the Syrdarya and Amudarya River basins.

2. Consideration and adoption of water withdrawal limits and operation regimes of the reservoir cascade in the Syrdarya and Amudarya River basins for the growing season 2018.

3. 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 on the "Implementation Plan on strengthening ICWC activities in key directions".

5. Agenda and venue of the next 74th regular ICWC meeting

Decision on the first item:

1. Take into account information provided by BWO Amudarya and BWO Syrdarya on the results of the non-growing season 2017-2018 in the Amudarya and Syrdarya River basins.

Decisions on the second item:

1. Take into account information of BWO Amudarya on the forecast of water content in the Amudarya River for the growing season 2018 - 80-85% of the average annual data.

2. Taking into account the above mentioned information, water limits for 90% of water availability should be adopted for April-May.

3. By June 1, BWO Amudarya should make forecast of water content in the Amudarya River fir the growing season 2018 more accurate and negotiate the approval of water withdrawal limits and operation regimes of the reservoirs on a routine basis.

4. Take into account information of BWO Syrdarya on the forecast water withdrawal limits of the countries and forecast operation regime of the reservoir cascade in the Syrdarya River basin for the growing season 2018.

5. BWO Syrdarya in cooperation with the Kazakh and Uzbek sides proposed the option with the forecast operation regime of the Naryn-Syrdarya reservoir cascade for the growing season 2018 (Annex 1).

6. The Tajik side noted that operation regime of the Bakhri Tochik reservoir depended on inflow at the Akdjar GS and water releases from the Toktogul reservoir. In this context, the Tajik side would present its notes and comments to the proposed forecast operation schedule of the Naryn-Syrdarya reservoir cascade after the Uzbek and Kazakh sides inform on their work on electricity receipt from the Kyrgyz Republic to ensure inflow to the Bakhri Tochik reservoir.

7. The parties have agreed to improve, through consultations, operation regime of the Bakhri Tochik reservoir for the growing season 2018 on a routine basis.

8. Entrust BWO Syrdarya to negotiate the approval of operation regime of the Bakhri Tochik reservoir for the growing season 2018 till the end of May 2018.

Decisions on the third item:

1. Take into account information of SIC ICWC on 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. ICWC members should take measures to fulfill the third position of Item 2 of the 63rd ICWC meeting's decision (April 18-19, 2014, Tashkent).

Decisions on the fourth item:

1. Take into account information of SIC ICWC on the "Implementation Plan on strengthening ICWC activities in key directions" in the Republic of Kazakhstan, Turkmenistan, and Republic of Uzbekistan.

2. Propose EC IFAS to include an item to support the "Implementation Plan on strengthening ICWC activities in key directions" into the agenda of EC IFAS meeting with partners and entrust SIC ICWC Director to prepare a report.

3. Take into account that SIC ICW identified the list of activities from the Plan for 2018-2019 that would be fulfilled by the Center at its own expenses.

4. Ask the ICWC members, as well as BWO Amudarya and BWO Syrdarya to identify activities from the remaining list of activities for 2018-2019 that can be fulfilled by their subordinate agencies.

Decisions on the fifth item:

1. Organize the 74th regular ICWC meeting in Turkmenistan. The date of the meeting should be approved in due course.

2. Propose the following agenda of the 74th regular ICWC meeting:

1) Implementation of water limits and operation regimes of the reservoir cascade for the growing season 2018 in the Syrdarya and Amudarya River basins.

2) 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) Supplementary items;

4) Agenda and venue of the next 75th regular ICWC meeting.

Republic of Kazakhstan	**Y.N.Nysanbayev**
Kyrgyz Republic	
Republic of Tajikistan	**S.N.Rakhimzoda**
Turkmenistan	**M.Bayramdurdyyev**
Republic of Uzbekistan	**Sh.R.Khamraev**

Annex 1

FORECAST SCHEDULE
of operation of the Naryn-Syrdarya reservoir cascade from April 1 to September 30, 2018

		April	May	June	July	August	September	Total, mcm
Toktogul reservoir								
Inflow to the reservoir	m^3/s	269	579	881	758	527	301	
	mcm	697	1,551	2,284	2,030	1,412	780	8,754
Volume: beginning of the season	mcm	14,456	14,113	14,871	16,259	17,362	17,889	
end of the season	mcm	14,113	14,871	16,259	17,362	17,889	17,938	
Water releases from the reservoir	m^3/s	400	295	344	342	325	275	
(domestic needs of the Kyrgyz Republic + additional releases)	mcm	1,037	790	892	916	869	713	5,217
of which: 1. Domestic needs of the	m^3/s	400	295	280	260	263	275	
Kyrgyz Republic	mcm	1,037	790	726	696	704	713	4,666
2. additional water releases	m^3/s	0	0	64	82	62	0	
	mcm			166	220	165		550
Bakhri Tochik reservoir								
Inflow to the reservoir	m^3/s	525	418	350	350	316	347	
(Akdjar gauging station)	mcm	1,360	1,120	907	937	847	900	6,071
Volume: beginning of the season	mcm	3,409	3,420	3,411	2,869	2,091	1,607	
end of the season	mcm	3,420	3,411	2,869	2,091	1,607	1,781	
Water releases from the reservoir	m^3/s	520	390	500	550	432	250	
	mcm	1,348	1,045	1,296	1,473	1,158	648	6,967
Shardara reservoir								

		April	May	June	July	August	September	Total, mcm
Inflow to the reservoir	m^3/s	400	550	400	200	181	200	
	mcm	1,037	1,474	1,037	535	484	518	5,085
Volume: beginning of the season	mcm	4,265	4,783	4,918	4,088	2,441	1,184	
end of the season	mcm	4,783	4,918	4,088	2,441	1,184	1,145	
Water releases from the reservoir	m^3/s	150	450	650	700	600	200	
	mcm	389	1,205	1,685	1,875	1,607	518	7,279
Discharge into the Kzylkum canal	m^3/s	50	50	70	115	50	15	
	mcm	130	134	181	308	134	39	926
Water supply to the Aral Sea	m^3/s	147	120	68	68	65	200	
	mcm	380	321	176	182	175	518	1,752
Charvak reservoir								
Inflow to the reservoir	m^3/s	286	436	544	399	225	134	
(4 rivers in total)	mcm	741	1,167	1,409	1,068	603	346	5,335
Volume: beginning of the season	mcm	676	963	1,450	1,992	1,985	1,783	
end of the season	mcm	963	1,450	1,992	1,985	1,783	1,591	
Water releases from the reservoir	m^3/s	175	254	333	400	298	207	
(water releases from the Gazalkent HEPS)	mcm	454	679	864	1,071	799	536	4,403
Andizhan reservoir								
Inflow to the reservoir	m^3/s	176	264	270	149	80	45	
	mcm	456	707	700	398	213	117	2,591
Volume: beginning of the season	mcm	1,218	1,418	1,748	1,703	1,429	1,175	
end of the season	mcm	1,418	1,748	1,703	1,429	1,175	1,112	
Water releases from the reservoir	m^3/s	99	140	287	250	174	68	
	mcm	256	376	743	670	465	177	2,686

RESULTS OF THE NON-GROWING SEASON 2017-2018 IN THE SYRDARYA AND AMUDARYA RIVER BASINS[1]

I. Amudarya River basin

The actual water content in the Amudarya River basin at the nominal Kerki section upstream of Garagumdarya was 63.5% of the norm. Given the norm of 14,555 mcm, the actual volume was 9,237 mcm. In the past season, the water content was 64.3 %.

The use of approved water withdrawal limits by state looks as follows over the non-growing season:

Totally in the basin, 98.0 % of the approved water withdrawal limit was used. While the limit was 15,721.1 mcm, the actually used volume was 15,408 mcm, of which:

The Republic of Tajikistan actually used 3,030.1 mcm, given the limit of 2,871.1 mcm (105.5 % of the limit)

The Republic of Uzbekistan actually used 6,054.3 mcm, given the limit of 6,350 mcm (95.3 % of the limit)

Turkmenistan actually used 6,323.6 mcm, given the limit of 6,500 mcm (97.3 % of the limit)

Water user state	Limit, mcm	Actual, mcm	%%
Republic of Tajikistan	2,871.1	3,030.1	105.5
Turkmenistan	6,500.0	6,323.6	97.3
Republic of Uzbekistan	6,350.0	6,054.3	95.3
Total	15,721.1	15,408.0	98.0

The use of limits downstream of the nominal Kerki GS upstream of Garagumdarya was 96.2%, of which:

The Republic of Uzbekistan actually used 5.7 bcm (95.1% of the limit)

Turkmenistan actually used 6.3 bcm (97.3% of the limit)

River reach Water user state	Limit, mcm	Actual, mcm	%%

[1] Information on the first item of the 73rd meeting of ICWC

Downstream of the nominal Kerki station	12,480	12,008.6	96.2
Turkmenistan	6,500.0	6,323.6	97.3
Republic of Uzbekistan	5,980.0	5,685.0	95.1

The actual use of approved water withdrawal limits by river reach is as follows:

1. Upper reaches – 104.9 %, including 105.5 % in the Republic of Tajikistan and 99.8 % in the Republic of Uzbekistan.

2. Middle reaches – 99.6 %, including 99.9 % in Turkmenistan and 99.0 % in the Republic of Uzbekistan.

3. Lower reaches – 89.2 %, including 87.3 % in Turkmenistan and 90.2 % in the Republic of Uzbekistan.

River reach Water user state	**Limit, mcm**	**Actual, mcm**	**%%**
Upper reaches	3,241.1	3,399.4	104.9
Republic of Tajikistan	2,871.1	3,030.1	105.5
Republic of Uzbekistan	370	369.35	99.8
Middle reaches	**8,433**	**8,398.2**	**99.6**
Turkmenistan	5,130	5,127.12	99.9
Republic of Uzbekistan	3,303	3,271.04	99.0
Lower reaches	**4,047**	**3,610.4**	**89.2**
Turkmenistan	1,370.0	1,196.4	87.3
Republic of Uzbekistan	2,677.0	2,414.0	90.2

Water supply to the Amudarya River delta and the Aral Sea was planned to be 2,100 mcm. Over the non-growing season the actual supply was 1,411 mcm or 67.2 %.

The inflow to the Nurek reservoir was expected to be 3,531 mcm over the non-growing season. The actual inflow was 3,644 mcm. Water releases from the reservoir were planned to be 7,804 mcm; the actual releases were 7,559 mcm. By the end of the non-growing season 2017-2018, water volume in the reservoir was to be 7,020 mcm. The actual volume was 6,638 mcm.

The inflow to the Tuyamuyun reservoir was expected to be 6,128 mcm for the non-growing season. The actual inflow 4,872 mcm. Water releases from the reservoir were planned to be 7,414 mcm. The actual releases were 6,760 mcm.

By the end of the non-growing season 2017-2018, water storage in the reservoir was planned to be 3,386 mcm; the actual storage was 2,783 mcm.

Item		unit	Nurek reservoir	Tuyamuyun reservoir
Volume: beginning of the season		mcm	10,571	4,672
Inflow to the reservoir	forecast	mcm	3,531	6,128
	actual	mcm	3,644	4,872
		%%	103.2	79.5
Water releases from the reservoir	forecast	mcm	7,084	7,414
	actual	mcm	7,559	6,760
		%%	106.7	91.2
Volume: end of the season	forecast	mcm	7,020	3,386
	actual	mcm	6,638	2,783
		%%	94.6	82.2
Accumulation (+), drawdown(-)	forecast	mcm	-3,551	-1,286
	actual	mcm	-3,933	-1,889
		%%	110.8	146.9

It should be mentioned that water releases from the Nurek reservoir were 106.7% of the planned ones, whereas the inflow was 103.2 % of the forecast.

More detailed information is given in tables (Annexes 1.1–1.3).

Annex 1.1

Analysis
of the use of water withdrawal limits in the Amudarya River basin for the non-growing season 2017-2018

Name	Water withdrawal limits, non-growing season 2017-2018, mcm	Actual, mcm	%%
Upper Amudarya Administration	3,241.1	3,399.4	104.9
(upper reaches)			
Of which:			
Tajikistan	2,871.1	3030.1	105.5
Uzbekistan	370	369.35	99.8
Water withdrawals from the Amudarya			
At nominal Kerki GS	12,480	12,008.6	96.2
Of which:			
Turkmenistan	6,500.0	6,323.6	97.3
Uzbekistan	5,980.0	5,685.0	95.1
Middle Amudarya Administration	8,433	8,398.2	99.6
(middle reaches), of which:			
Turkmenistan	5,130	5,127.12	99.9
Uzbekistan	3,303	3,271.04	99.0
Lower reaches:	4,047	3,610.4	89.2
Of which:			
Turkmenistan	1,370.0	1,196.4	87.3
Uzbekistan:	2,677.0	2,414.0	90.2
Additionally, sanitary water releases, total	800	776.43	97.1
Of which: Karakalpakstan	500	480.88	96.2
Dashoguz velayat	150	147.83	98.6
Khorezm province	150	147.72	98.5
Total in the basin:	15,721.1	15,408.0	98.0
Of which			
Tajikistan	2,871.1	3,030.1	105.5
Turkmenistan	6,500.0	6,323.6	97.3
Uzbekistan	6,350.0	6,054.3	95.3

Annex № 1.2

Information on water supply to the Amudarya River delta and Aral Sea for the non-growing season 2017-2018

mcm

Name	October	November	December	January	February	March	Water supply from 01.10.17 to 31.03.18, actual
From the Amudarya River, at Samanbay GS	242	80	73	70	39	119	623
Total water discharge from Dostlyk and Suenly canal system	84	51	8	3	0	0	146
CDF	83	60	74	104	179	142	642
TOTAL:	409	191	155	177	218	261	1,411
Cumulative	409	600	755	932	1,150	1,411	

Note: Data on water supply to the Amudarya River delta and Aral Sea are agreed with the Main Administration of Hydrometeorology at the Cabinet of Ministers of the Republic of Uzbekistan(Glavgidromet)

Annex 1.3

Actual operation regime of the Nurek and Tuyamuyun reservoirs
(October 2017 – March 2018)

Nurek reservoir	unit	actual						TOTAL
		October	November	December	January	February	March	
Volume: beginning of the season	mcm	10,571	10,503	10,103	9,205	8,237	7,278	10,571
Inflow to the reservoir	m^3/s	356	258	203	182	160	225	
	mcm	954	669	543	487	388	604	3,644
Water releases from the reservoir	m^3/s	382	413	535	543	554	462	
	mcm	1,023	1,069	1,433	1,456	1,340	1,239	7,559
Volume: end of the season	mcm	10,503	10,103	9,205	8,237	7,278	6,638	6,638
Accumulation(+),drawdown(-)	mcm	-68	-400	-898	-968	-960	-640	-3,933

Tuyamuyun reservoir	unit	actual						TOTAL
		October	November	December	January	February	March	
Volume: beginning of the season	mcm	4,672	4,649	5,009	4,493	4,315	4,084	4,672
Inflow to the reservoir	m^3/s	415	286	339	274	241	297	
	mcm	1,112	741	907	735	584	795	4,872.0
Water releases from the reservoir	m^3/s	424	147	531	341	336	783	
	mcm	1,135	382	1,423	913	812	2,096	6,760.0
Volume: end of the season	mcm	4,649	5,009	4,493	4,315	4,084	2,783	2,783
Accumulation(+),drawdown(-)	mcm	-23	360	-515	-178	-231	-1,301	-1,889

II. Syrdarya River basin

On September 26, 2017, the forecasts were received from UzHydromet on the non-growing season 2017-2018 and the adjusted forecast for the 4th quarter of 2017.

In general, river water content was 107% of the norm in the Syrdarya basin.

According to the UzHydromet's forecast, the inlow to the upstream resrvoirs was expected to be:

- to the Toktogul reservoir – 103 % ;
- to the Andizhan reservoir – 105%;
- to the Charvak reservoir – 123% of the norm.

The total lateral inflow was expected to be 106 % of the norm.

The results of the non-growing season are shown below.

Inflow to the upstream reservoirs

The normal inflow to the upstream reservoirs of the Naryn-Syrdarya cascade is 5,233 mcm for the non-growing season.

According to the Hydromet's forecast, the inflow was expected to be 5,700 mcm.

Actual inflow to the upstream reservoirs was 6 billion 317 million cubic meter or 617 million cubic meter more than the forecast one (Table 2.1).

Lateral inflow

The normal lateral inflow to the Syrdarya up to the Shardara reservoir is 11,075 mcm.

According to the UzHydromet's forecast, the lateral inflow was expected to be 11,723 mcm.

Actual lateral inflow was 12 billion 343 million cubic meter or 620 million cubic meter more than the forecast one (Table 2.1).

Total inflow

The total normal inflow is 16,308 mcm in the Syrdarya River basin for the non-growing season.

According to the UzHydromet's forecast, the total inflow was expected to be 17,423 mcm.

Actual lateral inflow was 18 billion 660 million cubic meter or 1.2 bcm more than the forecast one (Table 2.1).

Table 2.1

Name	Non-growing season, mcm					
	October 1, 2017 – March 31, 2018					2016-2017
	norm	forecast	actual	actual/ forecast (%)	actual/ norm (%)	actual
Inflow to upstream reservoirs						
Toktogul	2,891	2,985	3,655	122	126	3,643
Andizhan	934	981	864	88	93	1,124
Charvak (4 rivers in total)	1,408	1,735	1,797	104	128	1,873
Total	**5,233**	**5,700**	**6,317**	**111**	**121**	**6,640**
Lateral inflow						
Toktogul – Uchkurgan	398	410	386	94	97	423
Andizhan – Uchtepe	2,518	2,754	2,565	93	102	2,857
Uchkurgan. Uchtepe – Bakhri Tochik	4,365	4,710	5,686	121	130	5,435
Bakhri Tochik – Shardara	2,953	2,985	2,733	92	93	2,477
Gazalkent- Chinaz (excluding Ugam)	841	865	973	112	116	1,021
Total	**11,075**	**11,723**	**12,343**	**105**	**111**	**12,213**
Overall (total inflow)	**16,308**	**17,423**	**18,660**	**107**	**114**	**18,853**

Water releases from reservoirs

Total water releases from reservoirs were scheduled to be 34.6 bcm.

Actual water releases were 35 billion 480 million cubic meter or 961 million cubic meter more than the schedule (Table 2.2).

According to operation regime of the Naryn-Syrdarya reservoir cascade, 8 billion 943 million cubic meter were released from the Tortogul reservoir in the non-growing season.

Actual releases were 8 billon 782 million cubic meter or 161 mcm more than the scheduled ones.

Scheduled water releases from the Andizhan reservoir were 658 mcm. Actual releases were 657 mcm.

Scheduled water releases from the Charvak reservoir were 2,442 mcm. Actual releases were 2,561 mcm or 119 mcm more than the scheduled ones.

Water releases from the Bakhri Tochik reservoir were scheduled to be 13,242 mcm. Actual water releases were 13,250 mcm.

Scheduled water releases from the Shardara reservoir were 9,234 mcm.

Actual water releases were 10 billion 230 million cubic meter or 996 million cubic meter more than scheduled releases.

Table 2.2

Reservoir	**Water releases from October 1, 2017 to March 31, 2018, mcm**		**actual/ schedule (%)**	**Actual, from October 1, 2016 to March 31, 2017**
	According to operation schedule of NSRC	**Actual**		
Toktogul	8,943	8,782	98	8,351
Andizhan	658	657	100	741
Charvak (water releases from the Gazalkent HEPS)	2,442	2,561	105	2,746
Bakhri Tochik	13,242	13,250	100	12,390
Shardara	9,234	10,230	111	9,878
TOTAL:	**34,519**	**35,480**	**103**	**34,106**

Water storage in the reservoirs by the end of the non-growing season 2017-2018

By 1 April 2018, water storage in the upstream reservoirs was 16,203 mcm.

By the end of the non-growing season, actual water storage was 16,350 mcm (Table 2.3).

In the upstream reservoirs, water storage was as follows:

Toktogul 14,456 mcm.

Andizhan 1,218 mcm.

Charvak 676 mcm.

Table 2.3

Reservoir	Water storage in reservoirs, mcm			
	Actual by October 1, 2017	**Scheduled by April 1, 2018**	**Actual by April 1, 2018**	**Actual by April 1, 2017**
Toktogul	19,586	13,813	**14,456**	12,777
Andizhan	1,019	1,339	**1,218**	1,100
Charvak	1,768	1,051	**676**	564
TOTAL:	**22,373**	**16,203**	**16,350**	**14,441**
Bakhri Tochik	3,404	3,430	**3,409**	3,330
Shardara	1,194	4,611	**4,265**	4,633
TOTAL:	**4,598**	**8,041**	**7,674**	**7,963**
OVERALL:	**26,971**	**24,244**	**24,024**	**22,404**

Water supply to states

Over the non-growing season, water was supplied to the states based on requests submitted by water users (Table 2.4):

- Republic of Kazakhstan – limit was 475 mcm; actual use was 431 mcm;
- Kyrgyz Republic – limit was 37 mcm; actual use was 33 mcm;
- Republic of Tajikistan – limit was 365 mcm; actual use was 64 mcm;
- Republic of Uzbekistan – limit was 2,483 mcm; actual use was 2,390 mcm.

Table 2.4

Water user state	Water withdrawals, mcm, October 1, 2017 – March 31, 2018		
	Based on request	**Actual**	**%**
Republic of Kazakhstan (Dustlik canal)	475	431	91
Kyrgyz Republic	37	33	89
Republic of Tajikistan	365	64	18
Republic of Uzbekistan	2,483	2,390	96
Total from the Syrdarya River	**3,360**	**2,918**	87

Inflow to in-stream reservoirs, water supply to Prearalie and the Aral Sea

The scheduled inflow to the Bakhri Tochi reservoir was 13,064 mcm.

The actual inflow was 13.3 bcm or 291 mcm more than the scheduled inflow.

The scheduled inflow to the Shardara reservoir was 14.4 bcm. The actual inflow to the reservoir was 13,041 mcm or 1,411 mcm less than the scheduled inflow.

The inflow to Prearalie and the Aral Sea was scheduled to be 3,548 mcm. The actual inflow at the Karateren GS was 4,650 mcm, which is 1,102 mcm more than the scheduled inflow (Table 2.5).

Table 2.5

Name	Scheduled from October 1, 2017 to March 31, 2018, mcm	Actual from October 1, 2017 to March 31, 2018, mcm	actual/ schedule(%)	Actual from October 1, 2016 to March 30, 2017, mcm
Inflow to in-stream reservoirs				
Inflow to the Bakhri Tochik	13,064	13,355	102	13,460
Inflow to the Shardara reservoir	14,452	13,041	90	13,796
Water supply to the Aral Sea				
Supply to the Aral Sea	3,548	4,650	131	3,595

Table 2.6 shows forecast operation regime of the Naryn-Syrdarya reservoir cascade from October 1, 2017 to March 31, 2018. It was approved at the 72nd ICWC meeting.

Table 2.7 shows actual operation regime of the Naryn-Syrdarya reservoir cascade from October 1, 2017 to March 31, 2018.

Table 2.6

Forecast schedule of the
Naryn-Syrdarya reservoir cascade, October 1, 2017- March 31, 2018

		October	November	December	January	February	March	Total, mcm
Toktogul reservoir								
Inflow to the reservoir	м3/с	245	213	177	166	163	173	
	mcm	657	553	474	445	394	462	2,985
Volume: beginning of the season	mcm	19,586	19,366	18,619	17,348	15,998	14,771	
End of the season	mcm	19,366	18,619	17,348	15,998	14,771	13,813	
Water releases from the reservoir	м3/с	400	500	650	670	670	530	
	mcm	1,071	1,296	1,741	1,795	1,621	1,420	8,943
Bakhri Tochik reservoir								
Inflow to the reservoir	m³/s	724	644	862	947	1,012	807	
(Akdjar GS)	mcm	1,938	1,670	2,309	2,535	2,449	2,162	13,064
Volume: beginning of the season	mcm	3,404	3,330	3,415	3,418	3,397	3,366	
End of the season	mcm	3,330	3,415	3,418	3,397	3,366	3,430	
Water releases from the reservoir	m³/s	772	613	850	980	1,050	800	
	mcm	2,069	1,588	2,277	2,625	2,540	2,143	13,242
Shardara reservoir								
Inflow to the reservoir	m³/s	729	582	1,064	1,079	1,156	916	
	mcm	1,953	1,509	2,849	2,891	2,797	2,453	14,452
Volume: beginning of the season	mcm	1,194	1,055	1,017	2,633	4,076	4,793	
End of the season	mcm	1,055	1,017	2,633	4,076	4,793	4,611	
Water releases from the reservoir	m³/s	900	616	450	500	500	550	
	mcm	2,411	1,596	1,205	1,339	1,210	1,473	9,234
Supply to the Aral Sea	m³/s	171	180	260	265	255	224	

		October	November	December	January	February	March	Total, mcm
	mcm	459	467	696	710	617	600	3,548
Charvak reservoir								
Inflow to the reservoir	m³/s	135	119	101	90	88	127	
(4 rivers in total)	mcm	361	309	271	240	214	339	1,735
Volume: beginning of the season	mcm	1,768	1,665	1,582	1,451	1,261	1,087	
End of the season	mcm	1,665	1,582	1,451	1,261	1,087	1,051	
Water releases from the reservoir	m³/s	172	150	150	160	160	140	
(water releases from the Gazalkent HEPS)	mcm	461	389	402	429	387	375	2,442
Andizhan reservoir								
Inflow to the reservoir	m³/s	65	68	72	60	52	57	
	mcm	174	177	192	161	125	152	981
Volume: beginning of the season	mcm	1,019	981	1,059	1,211	1,343	1,407	
End of the season	mcm	981	1,059	1,211	1,343	1,407	1,339	
Water releases from the reservoir	m³/s	79	38	15	11	25	82	
	mcm	210	98	39	29	61	220	658

Table 2.7

Actual operation regime of the
Naryn-Syrdarya reservoir cascade from October 1, 2017 to March 31, 2018

		October, actual	November, actual	December, actual	January, actual	February, actual	March, actual,	Total, mcm
Toktogul reservoir								
Inflow to the reservoir	m3/s	304.23	241.87	230.97	194.48	189.68	229.71	
	mcm	814.84	626.92	618.62	520.91	458.87	615.26	3,655
Volume: beginning of the season	mcm	19,586.00	19,336.00	18,766.00	17,682.00	16,321.00	15,139.00	
End of the season	mcm	19,336.00	18,766.00	17,682.00	16,321.00	15,139.00	14,456.00	
Water releases from the reservoir	m3/s	399.06	459.03	635.07	700.97	680.64	484.90	
	mcm	1,068.85	1,189.81	1,700.96	1,877.47	1,646.61	1,298.77	8,782
Bakhri Tochik reservoir								
Inflow to the reservoir	m3/s	723.68	696.83	994.87	948.39	937.32	798.45	
(Akdjar GS)	mcm	1,938.30	1,806.19	2,664.66	2,540.16	2,267.57	2,138.57	13,355
Volume: beginning of the season	mcm	3,403.70	3,330.10	3,344.80	3,457.60	3,452.70	3,428.20	
End of the season	mcm	3,330.10	3,344.80	3,457.60	3,452.70	3,428.20	3,408.60	
Water releases from the reservoir	m3/s	772.48	697.10	950.61	931.19	937.61	771.19	
	mcm	2,069.02	1,806.88	2,546.12	2,494.11	2,268.26	2,065.56	13,250
Shardara reservoir								
Inflow to the reservoir	m3/s	729.03	598.06	1,046.64	860.62	918.12	824.58	
	mcm	1,952.64	1,550.16	2,803.33	2,305.09	2,221.12	2,208.56	13,041
Volume: beginning of the season	mcm	1,194.00	1,055.00	1,071.00	1,784.00	2,391.00	3,616.00	

		October, actual	November, actual	December, actual	January, actual	February, actual	March, actual,	Total, mcm
End of the season	mcm	1,055.00	1,071.00	1,784.00	2,391.00	3,616.00	4,265.00	
Water releases from the reservoir	m3/s	899.52	621.27	805.42	694.03	492.61	374.19	
(Shardara's tail-water)	mcm	2,409.27	1,610.32	2,157.24	1,858.90	1,191.72	1,002.24	10,230
Water releases to Kzylkum canal	m3/s	5.00	5.00	5.00	5.00	5.00	59.84	
	mcm	13.39	12.96	13.39	13.39	12.10	160.27	226
Discharge into Arnasay	m3/s	0.00	0.00	0.00	0.00	0.00	105.65	
depression	mcm	0.00	0.00	0.00	0.00	0.00	282.96	283
Water supply to the Aral Sea	m3/s	216.03	420.10	352.87	283.87	241.57	258.77	
	mcm	578.62	1,088.90	945.13	760.32	584.41	693.10	4,650
Charvak reservoir								
Inflow to the reservoir	m3/s	166.21	111.19	85.17	79.66	76.56	163.29	
(4 rivers in total)	mcm	445.17	288.20	228.13	213.35	185.21	437.35	1,797
Volume: beginning of the season	mcm	1,768.00	1,626.00	1,367.00	1,164.30	868.00	623.00	
End of the season	mcm	1,626.00	1,367.00	1,164.30	868.00	623.00	676.00	
Water releases from the reservoir	m3/s	172.00	189.20	156.55	171.19	161.79	127.05	
(Water releases from the Gazalkent HEPS)	mcm	460.69	490.41	419.30	458.53	391.40	340.29	2,561
Andizhan reservoir								
Inflow to the reservoir	m3/s	78.71	45.63	49.61	44.58	44.18	65.74	
	mcm	210.82	118.28	132.88	119.40	106.88	176.08	864
Volume: beginning of the season	mcm	1,018.60	1,033.45	978.55	1,034.93	1,108.80	1,176.22	
End of the season	mcm	1,033.45	978.55	1,034.93	1,108.80	1,176.22	1,218.20	
Water releases from the reservoir	m3/s	72.26	67.08	28.23	16.29	15.00	49.92	
	mcm	193.53	173.88	75.60	43.63	36.29	133.71	657

WATER WITHDRAWAL LIMITS, OPERATION REGIME OF THE RESERVOIR CASCADE IN THE SYRDARYA AND AMUDARYA RIVER BASINS OVER THE GROWING SEASON 2018[2]

I. Amudarya River basin

BWO Amudarya submits water withdrawal limits for the growing season 2018 to ICWC for consideration. These limits have been agreed beforehand with water management agencies of the states taking into account 100% of water availability.

Based on these limits and taking into account the forecast water content, the forecast operation regimes of the Nurek and Tuyamuyun reservoirs are developed.

According to the forecast by Uzhydromet, TajikHydromet and the analysis of BWO Amudarya, water content, in general, is expected to be lower than the norm; whereas it is expected to be within 80-85% of the average annual water content at the nominal Kerki GS upstream of Garagumdarya over the growing season 2018.

BWO Amudarya agreed with each water user state preliminary water withdrawal limits at the level of average annual limits over the growing season. Those limits are as follows:

For the Republic of Tajikistan, the limit is 6,951 mcm.

For the Republic of Uzbekistan, the limit is 16,020 mcm, including 1,200 mcm for the Surkhandarya province.

For Turkmenistan, the limit is 15,500 mcm.

To conclude, BWO Amudarya submits the following items to ICWC for consideration:

1. Forecast operation regime of the Nurek and Tuyamuyun reservoirs (Annex 1.5)

2. Limits of water withdrawals from the Amudarya River (Annex 1.4)

3. Water supply to the river delta and Aral Sea for the growing season 2018 (Annex 1.4)

Under the proposed operation regimes of the Nurek and Tuyamuyun reservoirs, water withdrawals are 100% provided in the middle reaches and 83.7% provided in the lower reaches. In this context, BWO Amudarya submits the second option of operation regime of the Nurek and Tuyamuyun reservoirs to ICWC for consideration, with decrease in water withdrawal limits by 15%.

[2] Information on the second item of the 73rd meeting of ICWC

In the process of approval of operation regimes, BWO Amudarya asks to consider both proposed options for the Nurek and Tuyamuyun reservoirs.

Annex 1.4

Limits of water withdrawal from the Amudarya River and water supply to the river delta and Aral Sea over the growing season 2018

River basin, state	Water withdrawal limits, mcm	
	Totally for year (1.10.17-1.10 .18)	including for the growing season (1.04.18-1.10.18)
Totally from the Amudarya River	55,392	39,671
Of which:		
Republic of Tajikistan	9,822	6,951
From the Amudarya River to the nominal Kerki GS	44,000	31,520
Turkmenistan	22,000	15,500
Republic of Uzbekistan	22,000	16,020
In addition:		
Surkhandarya province, Uzbekistan	1,570	1,200
Additionally: -		
- water supply to the River delta and Aral Sea, taking into account water to be released for irrigation and collector-drainage water	4,200	2,100
-supply of sanitary and environmental releases to irrigation systems	800	
Dashoguz velayat	150	
Khorezm province	150	
Republic of Karakalpakstan	500	
Total	60,392	41,771

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.

Annex 1.5

Forecast operation regime of the Nurek and Tuyamuyun reservoirs
(April-September 2018)

Option 1

Nurek reservoir	unit	actual						TOTAL
		April	May	June	July	August	September	
Volume: beginning of the season	mcm	6,638	6,275	7,154	8,421	9,900	10,481	6,638
Inflow to the reservoir	m^3/s	436	1,080	1,458	1,720	1,400	752	
	mcm	1,131	2,891	3,780	4,608	3,750	1,948	18,108
Water releases from the reservoir	m^3/s	590	752	967	1,168	1,182	733	
	mcm	1,529	2,013	2,506	3,128	3,167	1,901	14,243
Volume: end of the season	mcm	6,275	7,154	8,421	9,900	10,481	10,526	10,526
Accumulation (+), drawdown (-)	mcm	-363	879	1,267	1,479	580	45	3,888

Tuyamuyun reservoir	unit	actual						TOTAL
		April	May	June	July	August	September	
Volume: beginning of the season	mcm	2,783	2,255	2,904	3,740	3,888	2,872	2,783
Inflow to the reservoir	m^3/s	212	990	1,660	1,550	1,030	605	
	mcm	550	2,652	4,302	4,152	2,758	1,567	15,981
Water releases from the reservoir	m^3/s	416	748	1,337	1,495	1,409	849	
	mcm	1,078	2,003	3,466	4,004	3,774	2,200	16,525
Volume: end of the season	mcm	2,255	2,904	3,740	3,888	2,872	2,239	2,239
Accumulation (+), drawdown (-)	mcm	-528	649	836	148	-1,016	-632	-544

Forecast operation regime of the Nurek and Tuyamuyun reservoirs (April-September 2018)

Option 2

Nurek reservoir	unit	actual						TOTAL
		April	May	June	July	August	September	
Volume: beginning of the season	mcm	6,638	6,275	7,154	8,421	9,900	10,481	6,638
Inflow to the reservoir	m^3/s	436	1,080	1,458	1,720	1,400	752	
	mcm	1,131	2,891	3,780	4,608	3,750	1,948	18,108
Water releases from the reservoir	m^3/s	590	752	967	1,168	1,182	733	
	mcm	1,529	2,013	2,506	3,128	3,167	1,901	14,243
Volume: end of the season	mcm	6,275	7,154	8,421	9,900	10,481	10,526	10,526
Accumulation (+), drawdown (-)	mcm	-363	879	1,267	1,479	580	45	3,888

Tuyamuyun reservoir	unit	actual						TOTAL
		April	May	June	July	August	September	
Volume: beginning of the season	mcm	2,783	2,255	3,016	3,840	4,134	3,057	2,783
Inflow to the reservoir	m^3/s	212	1,035	1,725	1,710	1,095	655	
	mcm	550	2,773	4,470	4,580	2,932	1,698	17,003
Water releases from the reservoir	m^3/s	416	751	1,407	1,600	1,497	857	
	mcm	1,078	2,013	3,646	4,285	4,009	2,220	17,252
Volume: end of the season	mcm	2,255	3,016	3,840	4,134	3,057	2,534	2,534
Accumulation (+), drawdown (-)	mcm	-528	761	824	295	-1,077	-523	-249

II. Syrdarya River basin

Hydromet's forecast

On April 5, 2018, forecasts were received from UzHydromet for the growing season 2018.

In the growing season 2018, water content is expected to be as follows: Naryn, river basin, rivers in the South of the Fergana Valley, Chirchik - 90-100% (95%) of the norm, Akhangaran - 80-90 % (85 %), Karadarya - 70-80 % (75 %) of the norm.

On April 16, 2018, the Coordinating Dispatch Center (CDC) "Energy" provided forecast operation regime of the Toktogul reservoir for the growing season 2018. Based on the data received, the forecast inflow to the Toktogul reservoir is to be 91% of the norm (Kyrgyz Hydromet Center).

According to UzHydroMet, the forecast inflow is as follows:

- to the Andizhan reservoir - 87 % of the norm.

- to the Charvak reservoir - 91 % of the norm.

- lateral inflow - 91 % of the norm (Table 2.8).

In general, water content in the Syrdarya River basin is forecasted to be 91% of the norm.

Inflow to upstream reservoirs

The normal inflow to the upstream reservoirs in the Naryn-Syrdarya reservoir cascade is 18,467 mcm for the growing season.

The forecast inflow to *upstream reservoirs* is expected to be 16,679 mcm, which is 90% of the norm or 1,788 mcm less than the norm (Table 2.8).

Lateral inflow

The normal lateral inflow is 11,041 mcm.

The forecast inflow is expected to be 10.08 bcm, which is 91 % of the norm or 952 mcm less than the norm (Table 2.8).

Total inflow

The normal total inflow in the basin is 29,508 mcm for the growing season.

The forecast total inflow is expected to be 26,768 mcm, which is 91% of the norm or 2,740 mcm less than the norm (Table 2.8).

Table 2.8

Forecast inflow in the Syrdarya River basin for the growing season 2018

Name	Growing season, from April 1 to September 30, 2018, mcm				
	norm	forecast	% of the norm	2017	
				forecast	actual
Inflow to upstream reservoirs					
Toktogul	9,617	8,754	91	11,703	13,383
Andizhan	2,990	2,591	87	3,240	4,132
Charvak (4 rivers in total)	5,860	5,335	91	6,173	8,694
Total	**18,467**	**16,679**	**90**	**21,116**	**26,209**
Lateral inflow					
Toktogul – Uchkurgan	1,216	1,156	95	1,277	1,901
Andizhan – Uchtepe	2,529	2,213	88	2,766	3,227
Uchkurgan. Uchtepe – Bakhri Tochik	3,368	3,162	94	3,478	4,392
Bakhri Tochik – Shardara	3,020	2,688	89	3,162	2,874
Gazalkent- Chinaz (excluding Ugam)	909	870	96	1,029	1,561
Total	**11,041**	**10,089**	**91**	**11,712**	**13,955**
Overall (total inflow)	**29,508**	**26,768**	**91**	**32,828**	**40,164**

Water storage in the reservoirs

By the beginning of the growing season, water storage in the reservoirs is 24,024 mcm, excluding 16,511 mcm of dead storage, which is 1,620 mcm more than in the last year.

By the beginning of the growing season 2017, water storage in the reservoirs was 14,891 mcm (Table 2.9).

Table 2.9

Name	Water storage in the reservoirs by April 1 (mcm)				Dead storage (mcm)
	Including dead storage		Excluding dead storage		
	2018	2017	**2018**	2017	
Upstream reservoirs					
Toktogul	**14,456**	12,777	**8,956**	7,277	5,500
Andizhan	**1,218**	1,100	**1,068**	950	150
Charvak	**676**	564	**250**	138	426
TOTAL:	**16,350**	**14,441**	**10,274**	**8,365**	**6,076**
In-stream reservoirs					
Bakhri Tochik	**3,409**	3,330	**2,492**	2,413	917
Shardara	**4,265**	4,633	**3,745**	4,113	520
TOTAL:	**7,674**	**7,963**	**6,237**	**6,526**	**1,437**
OVERALL:	**24,024**	**22,404**	**16,511**	**14,891**	**7,513**

The total water volume is 43,279 mcm («total water storage in the reservoirs» plus «total forecast inflow»).

(16,511 + 26,768 = 43,279)

Water withdrawal limits

Taking into account submitted requests, the following water withdrawal limits for water user states are proposed for the growing season as follows (Table 2.10):

Table 2.10

Water withdrawal limits for the Syrdarya basin states

Water user state	Limits (100%), mcm
Republic of Uzbekistan (Dustlik canal)	705
Kyrgyz Republic	246
Republic of Tajikistan	1,905
Republic of Uzbekistan	8,800
Total:	**11,656**

Operation regimes of NSRC

Taking into account water storage in the reservoirs and forecast water content, the forecast operation regime of the Naryn-Syrdarya reservoir cascade from April 1 to September 30, 2018 is submitted to ICWC for consideration (Table 2.11).

Table 2.11

Forecast schedule of the Naryn-Syrdarya reservoir cascade from April 1 to September 30, 2018

		April	May	June	July	August	September	Total, mcm
Toktogul reservoir								
Inflow to the reservoir	m3/s	269	579	881	758	527	301	
	mcm	697	1551	2284	2030	1412	780	8754
Volume: beginning of the season	mcm	14456	14113	14871	16259	17362	17889	
end of the season	mcm	14113	14871	16259	17362	17889	17938	
Water releases from the reservoir	m3/s	400	295	344	342	325	275	
(domestic needs of the Kyrgyz Republic + additional water releases)	mcm	1037	790	892	916	869	713	5217
Of which: 1. Domestic needs of the	m3/s	400	295	280	260	263	275	
Kyrgyz Republic	mcm	1037	790	726	696	704	713	4666
2. additional water releases	m3/s	0	0	64	82	62	0	
	mcm			166	220	165		550
Bakhri Tochik reservoir								
Inflow to the reservoir	m3/s	525	418	350	350	316	347	
(Akdjar GS)	mcm	1360	1120	907	937	847	900	6071
Volume: beginning of the season	mcm	3409	3420	3411	2869	2091	1607	
end of the season	mcm	3420	3411	2869	2091	1607	1781	
Water releases from the reservoir	m3/s	520	390	500	550	432	250	
	mcm	1348	1045	1296	1473	1158	648	6967
Shardara reservoir								

		April	May	June	July	August	September	Total, mcm
Inflow to the reservoir	m3/s	400	550	400	200	181	200	
	mcm	1037	1474	1037	535	484	518	5085
Volume: beginning of the season	mcm	4265	4783	4918	4088	2441	1184	
end of the season	mcm	4783	4918	4088	2441	1184	1145	
Water releases from the reservoir	m3/s	150	450	650	700	600	200	
	mcm	389	1205	1685	1875	1607	518	7279
Discharge into the Kyzylkum canal	m3/s	50	50	70	115	50	15	
	mcm	130	134	181	308	134	39	926
Water supply to the Aral Sea	m3/s	147	120	68	68	65	200	
	mcm	380	321	176	182	175	518	1752
Charvak reservoir								
Inflow to the reservoir	m3/s	286	436	544	399	225	134	
(4 rivers in total)	mcm	741	1167	1409	1068	603	346	5335
Volume: beginning of the season	mcm	676	963	1450	1992	1985	1783	
end of the season	mcm	963	1450	1992	1985	1783	1591	
Water releases from the reservoir	m3/s	175	254	333	400	298	207	
(water releases from the Gazalkent HEPS)	mcm	454	679	864	1071	799	536	4403
Andizhan reservoir								
Inflow to the reservoir	m3/s	176	264	270	149	80	45	
	mcm	456	707	700	398	213	117	2591
Volume: beginning of the season	mcm	1218	1418	1748	1703	1429	1175	
end of the season	mcm	1418	1748	1703	1429	1175	1112	
Water releases from the reservoir	m3/s	99	140	287	250	174	68	
	mcm	256	376	743	670	465	177	2686

ANALYSIS OF HYDROLOGICAL CONDITIONS IN THE SYRDARYA AND AMUDARYA RIVER BASINS OVER THE NON-GROWING SEASON 2017-2018

1 Syrdarya River Basin

The actual inflow to the upstream reservoirs in the Syrdarya basin (Toktogul. Andizhan. and Charvak reservoirs) was 6.32 km³ during the non-growing season. The inflow to the Toktogul reservoir was 3.66 km³ or 123% of the forecast. The inflow to the Andizhan reservoir was 12% less than the forecast and to the Charvak reservoir – 3% more than the forecast. The total actual water releases from the upstream reservoirs were 12 km³. which were almost the same as planned releases by BWO Syrdarya (12.04 km³).

The total lateral inflow in the reach from the Toktogul reservoir to the Shardara reservoir. including discharges along the Karadarya and Chirchik rivers. was 11.53 km³. This is 1.8 times more than the total inflow to the upstream reservoirs.

By the end of the non-growing season. water volume in the upstream reservoirs was 16.35 km³. including 14.46 km³ in the Toktogul reservoir or 105 % of the BWO Syrdarya's scheduled amount. In the Andizhan and Charvak reservoirs. water volume was 1.22 km^3 (91 %) and 0.68 km^3 (65 %). respectively. The Toktogul reservoir was drawn down by 5.12 km³ and the Charvak reservoir – by 0.76 km³. The Andizhan reservoir was filled with water by 0.21 km³.

Over the non-growing season. the inflow to the Bakhri Tochik reservoir was 13.36 km³. which is 0.29 km³ more than planned by BWO; water releases from the reservoir were 13.25 km³. which is almost the same as scheduled by BWO Syrdarya (12.39 km^3 in 2016-2017). The reservoir was filled with water to 3.41 km^3. Water losses were 0.46 km³ in the reservoir.

During the non-growing season. the total water withdrawal from the Naryn and Syrdarya rivers in the reach up to the Shardarya reservoir was 2.92 km³. of which: 0.03 km³ for the Kyrgyz Republic. 0.06 km³ for the Republic of Tajikistan. 0.43 km³ for the Republic of Kazakhstan (along the Dustlik canal). and 2.4 km³ for the Republic of Uzbekistan. Water supply was uneven in the states. river reaches and time (Table 1.1).

Deviations of actual water supply from the limit ranged from -33% (first ten-day of February) to 215% (first ten-day of December) in the Toktogul-Bakhri Tochik reach and from -46% (second ten-day of October) to 90% (second ten-day of January) in the Bakhri Tochik-Shardara reach (Table 1.4)).

Water losses amounted to 3.89 km³ in the reach Toktogul-Shardara. This is 20% of the regulated flow (estimated by the balance method). In comparison. these losses amounted to 2.05 km³ in the same reach during the non-growing season 2016-2017.

During the non-growing season 2017-2018. the inflow to the Shardara reservoir was 13.04 km³ or 1.41 km³ less than scheduled by BWO Syrdarya. By the end of the non-growing season. up to 4.27 km³ (93%) were accumulated in the reservoir. Unrecorded inflow in the amount of 0.78 km³ was observed. Water discharge from the Shardara reservoir amounted to 10.74 km^3 (110 %). including 10.23 km³ into the river. water withdrawal to the Kyzylkum canal in the amount of 0.23 km³. and water releases to Arnasay in the amount of 0.28 km³.

According to the Hydromet's data, the actual water supply to the Aral was 3.95 km^3.

Table 1.2 gives river channel water balance. and Table 1.3 shows water balance of reservoirs.

Table 1.1

Water availability for the Syrdarya River basin countries for the non-growing season 2017-2018

№	Water user	Water volume.km^3		Water availability. %	Deficit(-). surplus (+). km^3
		Limit/ schedule	Actual	Season	Season
1	Total water diversion	3.36	2.92	87	-0.44
2	Water diversion by state:				
	Kyrgyz Republic	0.04	0.03	89	0.00
	Republic of Uzbekistan	2.48	2.39	96	-0.09
	Republic of Tajikistan	0.37	0.06	18	-0.30
	Republic of Kazakhstan	0.47	0.43	91	-0.04
3	By river reach				
3.1	Toktogul reservoir – Uchkurgan hydroscheme	1.37	1.26	92	-0.10
	of which:				
	Kyrgyz Republic	0.030	0.032	107	0.002
	Republic of Tajikistan	0.084	0.058	69	-0.026
	Republic of Uzbekistan	1.252	1.172	94	-0.080
3.2	Uchkugran hydroscheme – Bakhri Tochik hydroscheme	0.25	0.17	70	-0.074
	of which:				
	Kyrgyz Republic	0.007	0.001	15	-0.006
	Republic of Tajikistan	0.069	0.003	4	-0.066
	Republic of Uzbekistan	0.171	0.169	99	-0.002
3.3	Bakhri Tochik hydroscheme – Shardara reservoir	1.75	1.48	85	-0.26
	of which:				
	Republic of Kazakhstan	0.475	0.431	91	-0.04
	Republic of Tajikistan	0.212	0.004	2	-0.21
	Republic of Uzbekistan	1.061	1.049	99	-0.01
4	Inflow to the Shardara reservoir	14.45	13.04	90	-1.41
	Discharge into Arnasay	0.40	0.28	70	-0.12
5	Water delivery to the Aral Sea (Karateren gauging station)	3.32	3.95	119	0.64

Table 1.2

Syrdarya River channel water balance for the non-growing season 2017-2018

№	Balance item	Water volume. km^3		Deviation (actual - plan)
		Forecast/plan	Actual	
1	Inflow to the Toktogul reservoir	2.98	3.66	0.67
2	Lateral inflow in the reach of Toktogul reservoir – Shardara reservoir (+)	9.59	11.54	1.95
	of which:			
2.1	*Discharge along Karadarya River*	1.27	1.39	0.12
2.2	*Discharge along Chirchik River*	1.35	1.34	-0.02
2.3	*Lateral inflow from CDF and small rivers*	6.97	8.81	1.84
3	Flow regulation in the reservoirs: inflow (+) or diversion (-)	5.90	4.66	-1.24
	of which:			
3.1	*Toktogul reservoir*	5.96	5.13	-0.83
3.2	*Bakhri Tochik reservoir*	-0.05	-0.46	-0.41
4	Regulated flow (1+2+3)	18.48	19.86	1.38
5	Water withdrawal at the Toktogul – Shardara reach (-)	-3.36	-2.92	0.44
6	Water losses (-) or unrecorded inflow to the channel (+) in the Tокtogul-Shardara reach	-0.67	-3.89	-3.22
6.1	*Including % of the regulated flow*	4	20	
7	Inflow to the Shardara reservoir	14.45	13.05	-1.40
8	Flow regulation in the Shardara reservoir: inflow (+) or diversion (-)	-4.73	-2.30	2.43
9	Release from the Shardara reservoir to the river	9.72	10.74	1.02
10	Delivery to the Aral Sea (Karateren GS)	3.32	3.95	0.64

Table 1.3

Water balance of the Syrdarya River basin reservoirs for the non-growing season 2017-2018

№	Balance item	Water volume. km^3		Deviation (actual-plan)
		Forecast/plan	Actual	
1	**Toktogul reservoir**			
1.1	Inflow to the reservoir	2.98	3.66	0.67
1.2	Water volume in the reservoir:			
	- beginning of the season (October 1 2017)	19.59	19.586	0.00
	- end of the season (April 1 2018)	13.81	14.46	0.64
1.3	Water releases from the reservoir	8.94	8.78	-0.16
1.4	Unrecorded inflow (+) or losses (-)	0.19	0.00	-0.189
	Including % of inflow to the reservoir	6	0	6
1.5	Flow regulation: inflow (+) or diversion (-)	5.96	5.12	-0.84
2	**Andizhan reservoir**			
2.1	Inflow to the reservoir	0.98	0.86	-0.12
2.2	Water volume in the reservoir:			
	- beginning of the season (October 1 2017)	1.02	1.02	0.00
	- end of the season (April 1 2018)	1.34	1.22	-0.12
2.3	Water releases from the reservoir	0.66	0.66	0.00
2.4	Unrecorded inflow (+) or losses (-)	0.00	-0.01	-0.01
	Including % of inflow to the reservoir	0	1	1
2.5	Flow regulation: inflow (+) or diversion(-)	-0.32	-0.21	0.12
3	**Charvak reservoir**			
3.1	Inflow to the reservoir	1.73	1.80	0.06
3.2	Water volume in the reservoir:			
	- beginning of the season (October 1 2017)	1.77	1.77	0.00
	- end of the season (April 1 2018)	1.05	0.68	-0.38
3.3	Water releases from the reservoir	2.44	2.56	0.12
	Unrecorded inflow (+) or losses (-)	-0.01	-0.33	-0.32
	Including % of inflow to the reservoir	1	18	18
3.5	Flow regulation: inflow (+) or diversion(-)	0.71	0.76	0.06
4	**Bakhri Tochik reservoir**			
4.1	Water inflow to the reservoir from the river	13.06	13.36	0.29
4.2	Lateral inflow	0.300	0.36	0.06
4.3	Water volume in the reservoir:			
	- beginning of the season (October 1 2017)	3.40	3.40	0.00
	- end of the season (April 1 2018)	3.43	3.41	-0.02
4.4	Water releases from the reservoir	13.31	13.25	-0.06
	of which:			
	- releases to the river	13.24	13.25	0.01
	- water withdrawal from the reservoir	0.07	0.00	-0.07

№	Balance item	Water volume. km^3		Deviation (actual-plan)
		Forecast/plan	Actual	
4.5	Unrecorded inflow (+) or losses (-)	-0.03	-0.46	-0.43
	Including % of inflow to the reservoir	0	3	3
4.6	Flow regulation: inflow (+) or diversion (-)	-0.05	-0.46	-0.41
5	**Shardara reservoir**			
5.1	Inflow to the reservoir	14.45	13.04	-1.41
5.2	Lateral inflow	0.0	0.0	0.00
5.3	Water volume in the reservoir:			
	- beginning of the season (October 1 2017)	1.19	1.19	0.00
	- end of the season (April 1 2018)	4.61	4.265	-0.35
5.4	Water releases from the reservoir	9.72	10.74	1.02
	of which:			
	- Discharge into Arnasay	0.40	0.28	-0.119
	- Water releases to the river	9.23	10.23	1.00
	- water withdrawal from the reservoir	0.08	0.23	0.14
5.5	Unrecorded inflow (+) or losses (-)	-1.32	0.77	2.09
	Including % of inflow to the reservoir	9	6	3
5.6	Flow regulation: inflow (+) or diversion(-)	-4.73	-2.30	2.43
	Total flow regulation by reservoirs: inflow (+) or diversion (-)	1.55	2.92	1.36
	Total unrecorded inflow (-) or losses (+)	-1.17	-0.03	1.14

Table 1.4

Deviation of actual water supply from limit in the Syrdarya River basin over the non-growing season 2017-2018

Indicator		unit	October			November			December			January			February			March			Per season
			I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	
Toktogul-Bakhri Tochik reach																					
Total water withdrawal. of which:	Limit	m^3/s	189.2	182.9	163.2	81.4	39.0	20.2	4.6	11.4	30.5	67.8	74.9	75.4	88.1	76.5	104.9	191.5	211.8	224.3	**1.612**
	Actual	m^3/s	161.4	158.9	142.6	88.3	56.2	44.8	14.3	20.7	25.4	54.3	58.7	59.5	59.3	62.0	99.0	165.3	163.6	202.4	**1.434**
	Deviat.	**%**	**-14.7**	**-13.1**	**-12.6**	**8.4**	**44.3**	**121.8**	**214.5**	**81.1**	**-16.6**	**-20.0**	**-21.7**	**-21.2**	**-32.8**	**-19.0**	**-5.6**	**-13.7**	**-22.7**	**-9.7**	**-11**
Kyrgyz Republic	Limit	m^3/s	8.5	7.1	6.8	1.5	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.7	7.1	**37**
	Actual	m^3/s	5.9	4.5	4.5	4.4	3.7	4.0	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.5	0.6	1.8	**33**
	Deviat.	**%**	**-30.1**	**-36.1**	**-34.5**	**194.6**	**376.9**	**570.0**										**-88.5**	**-87.0**	**-74.8**	**-11**
Tajikistan	Limit	m^3/s	23.0	20.0	20.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	8.0	10.0	22.0	25.0	28.0	**153**
	Actual	m^3/s	8.9	6.3	5.9	4.9	3.0	2.8	0.0	1.8	3.0	2.2	1.3	5.0	7.1	3.2	3.1	3.2	3.5	3.9	**61**
	Deviat.	**%**	**-61.1**	**-68.7**	**-70.7**	**-59.6**									**18.8**	**-60.0**	**-69.1**	**-85.3**	**-86.1**	**-86.0**	**-60**
Uzbekistan	Limit	m^3/s	157.7	155.8	136.4	67.9	38.2	19.6	4.6	11.4	30.5	67.8	74.9	75.4	82.1	68.5	94.9	165.5	182.1	189.2	**1.423**
	Actual	m^3/s	146.5	148.1	132.3	79.1	49.5	38.0	13.2	18.1	21.6	51.4	56.6	53.6	51.3	58.0	95.4	161.7	159.6	196.7	**1.341**
	Deviat.	**%**	**-7.1**	**-4.9**	**-3.0**	**16.4**	**29.5**	**94.0**	**189.9**	**58.3**	**-29.1**	**-24.3**	**-24.4**	**-28.9**	**-37.5**	**-15.4**	**0.6**	**-2.3**	**-12.4**	**4.0**	**-6**
Bakhri Tochik-Shardara reach																					
Total water withdrawal. of which:	Limit	m^3/s	128.2	124.6	122.6	81.7	70.5	63.5	92.0	96.5	102.1	93.8	88.0	112.7	130.8	119.0	113.7	154.4	150.4	152.4	**1.748**
	Actual	m^3/s	78.2	67.3	77.6	69.9	64.3	63.6	61.5	60.0	60.0	95.0	167.2	144.2	121.6	123.6	99.6	114.5	109.1	120.0	**1.484**
	Deviat.	**%**	**-39.0**	**-46.0**	**-36.7**	**-14.4**	**-8.7**	**0.2**	**-33.2**	**-37.8**	**-41.2**	**1.3**	**90.0**	**28.0**	**-7.0**	**3.9**	**-12.4**	**-25.8**	**-27.5**	**-21.3**	**-15**
Kazakhstan	Limit	m^3/s	0.0	0.0	0.0	0.0	0.0	0.0	25.0	30.0	35.0	35.0	45.0	80.0	95.0	75.0	45.0	35.0	25.0	20.0	**475**
	Actual	m^3/s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	76.7	71.9	73.1	80.0	62.5	49.1	35.0	29.6	**431**
	Deviat.	**%**							**-100**	**-100**	**-100**	**-33.7**	**70.4**	**-10.1**	**-23.1**	**6.7**	**38.9**	**40.3**	**40.0**	**47.8**	**-9**
Tajikistan	Limit	m^3/s	36.0	30.0	27.0	16.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	22.0	32.0	32.0	35.0	**212**
	Actual	m^3/s	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**4**
	Deviat.	**%**	**-87.8**	**-100**	**-100**	**-100**	**-100**									**-100**	**-100**	**-100**	**-100**	**-100**	**-98**
Uzbekistan	Limit	m^3/s	92.2	94.6	95.6	65.7	64.5	63.5	67.0	66.5	67.1	58.8	43.0	32.7	35.8	36.0	46.7	87.4	93.4	97.4	**1.061**
	Actual	m^3/s	73.8	67.3	77.6	69.9	64.3	63.6	61.5	60.0	60.0	71.8	90.5	72.3	48.5	43.6	37.1	65.4	74.1	90.5	**1.049**
	Deviat.	**%**	**-20.0**	**-28.8**	**-18.9**	**6.5**	**-0.2**	**0.2**	**-8.2**	**-9.7**	**-10.5**	**22.1**	**110.5**	**121.3**	**35.7**	**21.3**	**-20.5**	**-25.2**	**-20.7**	**-7.1**	**-1**

2 Amudarya River Basin

The actual available water in the Amudarya River at the nominal Atamyrat gauging station (upstream of the intake to Garagumdarya) was 8.87 km³ or 29% less than scheduled by BWO Amudarya.

The inflow to the Nurek reservoir was 3.6 km³ (103% of the forecast); water releases were 7.56 km³ (107% of the BWO Amudarya schedule). Additional water to river flow due to drawdown of the Nurek reservoir was 3.91 km^3. By the end of the season. the reservoir was drawn down to 6.64 km^3.

In the TMHS reservoirs. the water accumulation plan has not been fulfilled – by the 1st of April the actual water volume was less than the scheduled one by 0.6 km³ and amounted to 2.78 km³. The failure to implement the water accumulation plan is explained by the limited inflow to the in-stream reservoir as it was expected. The flow in the Bir-Ata reach was 6.4 km³ (84% of the forecast). Water releases from TMHS were also less than scheduled by BWO – 6.76 km³ (91%). Water losses were 1.53 km³ in the Bir-Ata-Tuyamuyun GS reach (estimated by the balance method as balance discrepancy).

The established limit of water withdrawal in the basin was 98 % used; water withdrawal was 15.41 km^3. including 12.01 km^3 downstream of the Atamyrat gauging station (starting from the intake to Garagumdarya).

Water availability was uneven in the states and river reaches (Table 2.1). To compare. in the upper reaches (up to intake of Garagumdarya). it amounted to 105%. in the middle reaches (up to TMHS) – to 101%. and in the lower reaches it decreased to 87% (85% in Turkmenistan and 88% in the Republic of Uzbekistan). The total water deficit was 31 mcm (2%). including 5% in the Republic of Uzbekistan and 3% in Turkmenistan -3%. whereas in the Republic of Tajikistan water excess was 6%.

Deviations of actual water supply from the limit ranged from -14% (first ten-day of March) to 27% (first ten-day of December) in the Nurek-Tuyamuyun reach and from -90% (third ten-day of November) to 903% (first ten-day of January) in the Tuyamuyun-Samanbay reach (Table 2.4).

Water losses were not observed in the nominal Atamyrat GS – Bir-Ata reach; unrecorded inflow was observed in the amount of 0.47 km³ (4% of river flow). In the reach Tuyamuyun GS-Samanbay, water losses amounted to 1.76 km^3 (36% of flow in the Tuyamuyun GS). In the non-growing season 2016-2017. water losses were less – 1.32 km^3. The total channel losses were 1.29 km³ or 14% of flow in the middle and lower reaches.

The established limit for sanitary and environmental water releases to the Amudarya downstream canals was 96% used; water supply amounted to 0.77 km³. According to the Hydromet's data, 1.41 km³ were supplied to Prearalie and the Aral Sea.

Table 2.2 provides data on the river channel balance. and Table 2.3 gives the water

balance of the reservoirs.

Table 2.1

Water availability in the Amudarya River basin countries for the non-growing season 2017-2018

№	Water user	Water volume. km3		Water availability. %	Deficit (-). surplus (+). km^3
		Limit/ schedule	Actual	Season	Season
1	Total water withdrawal	15.72	15.41	98	-0.31
2	Water withdrawal by state:				
	Kyrgyz Republic	-	-	-	-
	Republic of Tajikistan	2.87	3.03	106	0.16
	Turkmenistan	6.50	6.32	97	-0.18
	Republic of Uzbekistan	6.35	6.05	95	-0.30
3	Downstream of the Atamyrat reach	12.48	12.01	96	-0.47
	of which:				
	Turkmenistan	6.50	6.32	97	-0.18
	Republic of Uzbekistan	5.98	5.68	95	-0.30
4	By river reaches				
	Upper reaches	3.24	3.40	105	0.16
	of which:				
	Kyrgyz Republic	-	-	-	-
	Republic of Tajikistan	2.87	3.03	106	0.16
	Republic of Uzbekistan. Surkhandarya	0.37	0.37	100	0.00
	Middle reaches	8.35	8.40	101	0.05
	of which:				
	Turkmenistan	5.10	5.13	101	0.03
	Republic of Uzbekistan	3.25	3.27	101	0.03
	Lower reaches	4.13	3.61	87	-0.52
	of which:				
	Turkmenistan	1.40	1.20	85	-0.20
	Republic of Uzbekistan	2.73	2.41	88	-0.32
5	Sanitary and environmental releases to canals within lower reaches	0.80	0.77	96	-0.03
	Including:				
	Turkmenistan	0.15	0.14	93	-0.01
	Republic of Uzbekistan	0.65	0.63	97	-0.02
6	Supply to Prearalie and the Aral Sea	2.1	1.41	67	-0.69

Table 2.2

The Amudarya River channel water balance for the non-growing season 2017-2018

Balance item	Water volume. km^3		Deviation (actual-plan)
	Forecast/plan	Actual	
1.Water content of the Amudarya river - non-regulated flow at the Atamyrat GS *	12.54	8.87	-3.67
2.Flow regulation in the Nurek reservoir: accumulation (+) or diversion (-)	3.55	3.91	0.36
3.Water withdrawal in the midstream (-)	-8.35	-8.40	-0.05
4.Midstream return CDF (+)	1.46	1.55	0.09
5.Water losses (-) or unrecorded inflow to the channel (+)	-1.62	0.47	2.09
% of flow at the nominal Atamyrat GS	10	4	-6
6.Flow at the Bir-Ata GS	7.58	6.40	-1.18
7.Flow regulation by TMHS: accumulation (+) or diversion (-)	-0.17	0.36	0.53
8.Water releases from TMHS (including water diversion from the reservoir)	7.41	6.76	-0.65
9.Downstream water diversion. including from TMHS (-)	-4.13	-3.61	0.52
10.Downstream return CDF (+)	0.00	0.00	0.00
11.Emergency and environmental water releases to canals (-)	-0.80	-0.77	0.03
12.Runoff losses (-) or unrecorded inflow to the channel (+)	-1.43	-1.76	-0.33
% of flow in the Tuyamuyun GS reach	27	36	9
13.Supply to Prearalie and the Aral Sea (Samanbay GS)	1.05	0.62	-0.42
TOTAL losses:	-3.05	-1.29	1.76
% of water content	24	14	-10

* Minus upstream water withdrawals (Tajikistan and Surkhandarya province)

Table 2.3

Water balance of the reservoirs in the Amudarya River basin for the non-growing season 2017-2018

Balance item	Water volume. km^3		Deviation (actual-plan)
	Forecast/plan	Actual	
1 Nurek reservoir			
2.1 Inflow to the reservoir	3.53	3.64	0.11
2.2 Water volume in the reservoir:			
– Beginning of the season (October 1 2017)	10.57	10.57	0.00
– End of the season (April12018)	7.02	6.64	-0.38
2.3 Water releases from the reservoir	7.08	7.56	0.48
2.4 Lateral inflow (+) or losses (-)	0.00	-0.02	-0.02
% of the inflow to the reservoir	0	1	0
2.5 Flow regulation: accumulation (+) or diversion (-)	3.55	3.91	0.36
2 Reservoirs of TMHS			
2.1 River flow at Bir-Ata GS	7.58	6.40	-1.18
2.2 Water volume in the reservoirs:			
– Beginning of the season (October 1 2017)	4.67	4.67	0.00
– End of the season (April12018)	3.39	2.78	-0.60
2.3 Water release from the hydroscheme	7.41	6.76	-0.65
of which:			
– release to the river	5.36	4.89	-0.47
– water diversion	2.05	1.87	-0.18
2.4 Unrecorded inflow (+) or water losses (-)	-1.46	-1.53	-0.08
including %of inflow to the reservoir	19	24	5
2.5 Flow regulation: accumulation (+) or diversion (-)	-0.17	0.36	0.53
TOTAL losses (-). unrecorded inflow (+)	-1.45	-1.55	-0.10

Table 2.4

Deviation of actual water supply from limit in the Amudarya River basin over the non-growing season 2017-2018

Indicator		unit	October			November			December			January			February			March			Per season
			I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	
Nurek-Tuyamuyun reach																					
Total water withdrawal. of which:	Limit	m^3/s	892	877	832	722	684	547	465	524	524	576	612	624	656	770	853	986	1055	1076	11.586
	Actual	m^3/s	993	873	808	730	692	658	589	544	555	574	659	723	716	750	775	844	955	1057	11.798
	Deviat.	**%**	11	0	-3	1	1	20	27	4	6	0	8	16	9	-3	-9	-14	-10	-2	2
Tajikistan	Limit	m^3/s	238	233	213	207	207	190	146	138	132	128	128	134	143	162	193	222	239	238	2.871
	Actual	m^3/s	266	230	207	189	183	178	142	115	112	113	190	252	215	204	169	183	229	279	3.030
	Deviat.	**%**	12	-1	-3	-9	-11	-6	-3	-17	-15	-12	48	88	50	26	-12	-18	-4	17	6
Turkmenistan	Limit	m^3/s	395	384	360	295	260	230	219	211	205	210	230	246	275	359	406	483	527	553	5.100
	Actual	m^3/s	445	370	345	300	272	252	216	216	232	257	273	272	290	333	387	435	465	517	5.127
	Deviat.	**%**	13	-4	-4	2	4	9	-1	3	13	22	19	10	5	-7	-5	-10	-12	-6	1
Uzbekistan	Limit	m^3/s	259	259	259	220	217	127	100	175	187	238	254	244	238	249	254	281	289	286	3.615
	Actual	m^3/s	281	273	256	242	238	229	231	213	211	204	196	199	211	213	219	226	261	261	3.640
	Deviat.	**%**	8	5	-1	10	10	80	131	22	13	-14	-23	-18	-11	-15	-14	-19	-10	-9	1
Tuyamuyun-Samanbay reach																					
Total water withdrawal. of which:	Limit	m^3/s	353	278	208	125	125	125	167	144	100	30	37	51	188	385	520	657	677	623	4.135
	Actual	m^3/s	266	277	90	18	16	13	177	307	332	301	129	62	38	93	311	634	645	441	3.610
	Deviat.	**%**	-25	0	-57	-85	-87	-90	6	114	232	903	248	21	-80	-76	-40	-4	-5	-29	-13
Turkmenistan	Limit	m^3/s	140	70	0	0	0	0	0	0	0	30	37	51	108	206	210	253	263	263	1.400
	Actual	m^3/s	136	70	3	0	0	0	0	8	42	45	45	26	29	66	165	250	276	227	1.196
	Deviat.	**%**	-3	0								51	23	-50	-73	-68	-21	-1	5	-14	-15
Uzbekistan	Limit	m^3/s	213	208	208	125	125	125	167	144	100	0	0	0	80	179	310	404	414	360	2.735
	Actual	m^3/s	130	206	87	18	16	13	177	299	290	255	84	36	9	27	146	384	369	214	2.414
	Deviat.	**%**	-39	-1	-58	-85	-87	-90	6	108	190				-88	-85	-53	-5	-11	-41	-12

CENTRAL ASIAN REGIONAL ENERGY SECURITY CONFERENCE

The George C. Marshall European Center for Security Studies (GCMC) in cooperation with the Central Asia Institute for Strategic Studies (CAISS) organized a Central Asian Regional Energy Security Conference on April 4-6, 2018 in Almaty, Kazakhstan with participation of professionals from the Central Asian states. The Conference reviewed the new energy security dynamics in the world with the focus on Central Asia. Professionals from Germany, Norway, Belgium, USA, Hungary, France, Russia, Ukraine, Tajikistan, Turkmenistan, Kazakhstan, and Uzbekistan participated in the Conference.

Mr. Andrew Brinkman, representative of GCMC, delivered a welcoming speech and presented the Center and Conference agenda. He underlined that problems and challenges discussed at the Conference were difficult to address. However, the participation of academia and practitioners from energy sector is needed to discuss, accumulate experience and ideas in order to prioritize and highlight those difficulties at the regional and international levels. Then representatives of institutes which organized the event made their presentations. Prof. Pal Dunay, GCMC, and Ms. Anna Gussarova, Director of CAISS, made presentation on Energy Issues on the Security Agenda in Central Asia. They described main advantages and disadvantages of geopolitical location of the Central Asian countries, their investment attractiveness and shortcomings, bi- and multilateral relations in energy, water, and agriculture, and main challenges these countries face.

Mr. Danila Bochkarev, EastWest Institute, spoke on the theme „Can Energy Markets Deliver Security of Supply?". He mainly focused on the European energy market and its influence on players from outside. Particulalrly, he presented a range of factors and options for „games" with prices and gas supply volumes to suppress economics of the resource-oriented countries, as well as market manipulation tactics to involve energy-dependent countries to fulfill one's interests.

Mrs. Irina Mironova, ENERPO Russian Reserch Center, conculded the first day of the Conference with presentation on the theme „Decarbonization of Large Importers and the Security of Demand". Her presentation made it possible to conclude that unfortunately CO2 emissions steadily increased despite all efforts made under the large number of agreements, restrictions, sanctions, etc. Moreover, alternative energy is so expensive that it does not promote conversion to this energy. This was illustrated on hybrid cars. These cars are expensive and unreliable in service, let alone insufficient infrastructure even in developed countries, which are more than most concerned with environmental conservation. Participation of the Central Asian delegations made the discussions more negative. For instance, the representative of Kazakhstan said that his country had large reserves of coal of various "purity", and

alternative energy at reasonable price was low-efficient. That is why, this matter will not be discussed at any level in the nearest future. The example of Uzbekistan and Tajikistan was mentioned. There, all cars were conversed from liquid fuel to gas. However, the question is far from the environmental protection concerns. This step is driven by cheapness of gas and problems with gasoline (as in Tajikistan). Inefficient heat utilization was also mentioned in large cities of Post-Soviet countries, i.e. heating systems almost are not equipped with temperature control devices. Hence, streets are "heated" in winter because of open windows in buildings.

The second day of the Conference started with the presentation of Mr. N. Rebiere on the theme „Energy Export: a game in Central Asia". This presentation was a logical continuation of all previuos presentations and demonstrated the interest of Turkey and European Union in energy supply from the Central Asian states. Then the competition between China and India on energy market in Central Asia was discissed, including TAPI (Turkmenistan-Afghanistan-Pakistan-India) gas pipeline project and China-Turkmenistan gas pipeline projects (ongoing and designed).

Mr.Richard Wheeler, Center for Energy Security Dialogue, made a presentation on Multilateral Engagement with Central Asia on Energy Issues. He presented the vision and approaches of EU developed countries to energy sector in Central Asia, as well as a range of related agreements.

The second day of the Conference was concluded with the presentation „The Russian Gas Market: Export Strategy and Policy Trends" made by Mrs. Natalya Slobodian, Director of the Security Expert Center. She highlighted energy and expecially gas relations between the Russian Federation and Ukraine. An expert vision and steps were presented to overcome the crisis between the coutries, which are so close in every respect.

The final third day of the Conference started with the presentation of Mr. F.Aminjonov, CAISS, "Energy "Independence" Is Not Energy Security: The Case of the Central Asian Electric Power System". His presentation was extensive as it included all types of energy. Hydropower and consequent problems between the Central Asian states attracted the greatest interest. Some of these problems were highlighted for the region in general and each state in particular. These include pressure from major players on energy market, inability to agree on many energy issues in the region, extent of damage caused by these difficulties, etc. During discussions, risks of positive and negative movements were assessed in case if regional countries rapproach in all energy aspects.

Then a presentation was made by Mr.R.Vakulchuk, Norwegian Institute of International Affairs, and Mr.B.Eshchanov, Westminster International University in Tashkent, on the theme "Renewables in an Energy Resources Rich Region". As already mentioned, expensive facilities to produce alternative (wind and solar) energy and its operation do not allow developing Central Asian states to implement and use these systems at full capacity. Although, almost all these countries have huge capacity to use these energy sources. The reporters proved that in the nearest future these systems will be widely implemented, their cost is reduced and efficiency is increased.

It is obvious that ordinary people believe hardly in non-stop progress. However, reporters consider that development of small-scale power generation directly depends on extent of implementation and use of alternative energy sources.

The last report was made by SIC ICWC expert B.Gojenko on the theme "Water and Water Management on the Central Asian Energy Security Agenda". He described importance of water in the global, regional and national context. He presented previously constructed development/construction scenarios of the Roghun HEPS. He particularly presented the most pessimistic and optimistic scenarios of use of this HEPS for the interest of all states. This presentation also included necessary measures to be implemented by each state to reduce damages not only for the states but also for the region as a whole. The presentation raised a heated discussion. Particularly, the majority of participants said that it was necessary to restore the platform for interactions and joint research on Roghun, with involvement of a wide range of experts: water and energy professionals, economists, sociologists, ecologists, and others, who would be uncompromising while working for the interest of all states. Then it was proposed to develop a particular financial-economic mechanism for interactions between the upstream and downstream countries. It was underlined that such mechanism is much needed, taking into account that previous agreements, conventions, and other legal agreements did not properly work for a number of reasons.

The Conference concluded with discussions and summaries as follows:

- Such events should be organized with participation of professionals from various sectors of all Central Asian states by all means, including not only energy experts but also water professionals, engineers, politicians, and others.
- The use of alternative energy is a weak point in energy sector in Central Asia. Hence, it is necessary to attract experts of relevant producing companies and experts on the use of such systems.
- It would be desirable to involve representatives of car industry, including giants of hybrid car production, such as Toyota and/or Honda to better present the benefits of using these cars.
- Development of a platform of scientists and experts on regional HEPS and of a financial-economic mechanisms for interaction of user-states of these HEPS.
- Definite promotion of approved decisions, opinions, and visions received at the Conference through publications by organizers.

B.Gojenko

OUTCOME DOCUMENT OF THE COORDINATION MEETING OF THE EXECUTIVE COMMITTEE OF THE INTERNATIONAL FUND FOR SAVING THE ARAL SEA AND THE INTERNATIONAL DEVELOPMENT PARTNERS

May 10, 2018 Ashgabat

The challenges of water management and use, environmental protection, and climate change effects in the Aral Sea basin could be efficiently met provided that sustainable water use is ensured, environmental sustainability is achieved, and adaptation to climate change is undertaken through joint efforts of the Central Asian states and active promotion of the world society.

The decision of the IFAS Board tasks the Executive Committee of the International Fund for Saving the Aral Sea (EC IFAS) jointly with the Interstate Commission for Water Coordination (ICWC), the Interstate Commission for Sustainable Development (ICSD) of IFAS with participation of national experts and international partners to develop a Program of actions (ASBP-4) to provide assistance to the countries of the Aral Sea basin.

EC IFAS was also entrusted to assist in development of the Regional Environmental Program for Sustainable Development in Central Asia (REPSD) and in negotiation with IFAS founding states of a draft concept of the Special UN Program for the Aral Sea basin.

International partners underline the key role of IFAS in development of ASBP-4 and other programs as a platform for dialogue and coordination of actions between the Central Asian states in the area of water management, environmental and socio-economic sustainability, and IFAS institutional and legal framework improvement.

Taking into account the UN Resolution A/72/L.42 adopted at the 72nd Session on Cooperation between the United Nations and the International Fund for Saving the Aral Sea, EC IFAS proposed to establish an informal Consulting Group of international partners for development of ASBP-4 and REPSD and negotiation with IFAS founding states the draft concept of the Special UN Program for the Aral Sea basin Concept. This Group will have voluntary membership and will facilitate the development of the abovementioned programs and promote consolidation of international assistance to IFAS activities. The participants of the coordination meeting approved the proposed initiative of EC IFAS on the establishment of such a Consulting Group.

International partners expressed willingness to render assistance in developing the above mentioned programs and maintaining, within their mandates, close cooperation with IFAS and IFAS founding states.

The support by international partners will be in form of financing, consulting, meetings and consultations.

Concrete decisions on financing development and implementation of programs will be made by IFAS' international partner within their mandates, proceeding from their budgets and in line with relevant financial procedures.

Finally, international partners stressed the need to ensure a regular joint monitoring of the development of regional programs through the Consulting Group.

OUTCOME DOCUMENT OF THE 1ST MEETING OF THE REGIONAL WORKING GROUP ON DRAFTING A NEW PROGRAM OF ACTIONS (ASBP-4) TO PROVIDE ASSISTANCE TO THE COUNTRIES OF THE ARAL SEA BASIN AND IMPROVING THE INSTITUTIONAL AND LEGAL FRAMEWORK OF IFAS

According to the Working Plan of EC IFAS approved by the decision of IFAS Board on January 30, 2018, the first meeting of the Regional Working Group (RWG) on drafting a new Program of actions (ASBP-4) and improving the institutional and legal framework took place on May 16-17, 2018 in Ashgabat. The meeting was organized by the Executive Committee of the International Fund for Saving the Aral Sea (EC IFAS) with the support from the Ministry of Foreign Affairs of Turkmenistan, the GIZ Regional Program "Transboundary Water Resources Management in Central Asia", and the Regional Environmental Center for Central Asia (CAREC).

The participants included representatives of EC IFAS, Ministry of Foreign Affairs of Turkmenistan, RWG members for the development of ASBP-4 and WG for the improvement of institutional and legal framework of IFAS from Kazakhstan, Tajikistan, Turkmenistan, Uzbekistan, experts of CAREC and the GIZ Regional Program "Transboundary Water Resources Management in Central Asia".

The participants discussed the matters related to drafting of ASBP-4 and the institutional and legal framework of IFAS.

Additionally, the participants voiced a need to draft a Concept for the development of ASBP-4.

Opportunities offered by the Central Asian Nexus Dialogue project to support the development of ASBP-4 at the national and regional levels were presented as well.

Finally, the members of working groups made the following proposals:

1. Task EC IFAS to develop, with technical support of GIZ, a draft Concept on development of ASBP-4, including structure, aims and objectives, main directions of ASBP-4, rules and procedures of the regional and national working groups, ToR for development of and selection criteria for projects. The prepared draft document should be submitted to the Parties for approval;

2. In the course of three months, the working group should prepare proposals on the improvement of the institutional and legal framework of IFAS. It is recommended to use the Discussion note “Improving organizational structure and legal framework of IFAS: analysis and proposals”;

3. EC IFAS is to submit the draft Protocol on rotation to the IFAS Working Group members for their consideration and comments till July 1, 2018.

JOINT MEETING OF WORKING GROUPS ON IWRM AND ON MONITORING AND ASSESSMENT UNDER THE UNECE WATER CONVENTION

The thirteenth meeting of the Working Group on Integrated Water Resources Management and the fourteenth meeting of the Working Group on Monitoring and Assessment under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) were held jointly on 28-30 May. The main objectives of the meeting were to:

a. discuss the results and lessons learned from the reporting exercise under the Water Convention and on Sustainable Development Goal indicator 6.5.2. for which the United Nations Economic Commission for Europe (ECE) and the United Nations Educational. Scientific and Cultural Organization (UNESCO) are co-custodians;

b. discuss and agree on the draft programme of work for 2019–2021 under the Convention to be submitted to the Meeting of the Parties to the Convention for adoption at its eighth session (Astana. 10–12 October 2018);

c. discuss and agree on other documents and draft decisions to be submitted to the eighth session of the Meeting of the Parties. in particular in the light of the implementation of the Convention at the global level.

The following key points of the agenda were discussed during the meeting.

Monitoring and assessment of transboundary waters

The Co-Chair provided an overview of past work and activities on monitoring and data exchange in transboundary basins and presented the proposed activities in the draft program of work for 2019–2021.

The reports on their work in relation to data monitoring and exchange were presented by the representatives of Chad. Senegal. Moldova. Ukraine and Austria. The partners from Moldova and Ukraine made presentation on water data and adaptation to climate change in the Dniester River Basin. They developed and put into operation a common platform for hydrological data exchange through a network of national hydrometeorological services (http://vb.dniester-basin.org/). Further the countries will start developing the joint basin plan.

For engagement of all participants in the discussion and identification of the most important points to be included in the program of work for the next three years. the participants were organized in smaller groups. The results of discussion in those groups were reported by moderators. The reporters underlined the significance of

error-free and reliable information that could be collected also through remote sensing. Additionally to the list of key data on water quantity and quality. the need was stressed to control the status of aquatic ecosystems in terms of biodiversity and fishes. The participants also voiced the problem of data quality and comparability that could not be solved frequently through joint measurements by riparian countries.

Progress in the ratification process and recent accession: Celebration of the accession of Chad

On 23 May 2018. Chad became the first country from outside the pan-European region to become a Party to the Convention. This important step was celebrated by a ceremonial session. where the diplomatic corps was invited as well. The Executive Secretary of UNECE Olga Algaerova made the opening statement.

The representative of Chad shared the reasons for the country's accession. the process and lessons learned. Representatives of Senegal. Iraq and Cote d'Ivoire reported on their efforts towards acceding to the Water Convention. Representatives of Switzerland. Hungary. Germany. Finland. the Netherlands and the European Union expressed their willingness to assist other interested countries if they wished to know better about the Convention and the advantages of accession.

The global Convention — promotion and partnerships

The working groups were informed about activities carried out by the

secretariat and partners to build capacity and raise awareness of the Convention. such as work meetings for Senegal (Dakar. 15 February 2018). Ghana (Accra. 25 January 2018). northern African countries (Tunis. 20–21 December 2017) and Central Africa (Brazzaville. 18–22 December 2017). as well as about other initiatives at the regional and global levels to build capacity on and awareness of the Convention.

The working groups discussed a draft revised strategy for the implementation of the Convention at the global level. including its relationship with the Convention on the Law of the Non-navigational Uses of International Watercourses and the role of key partners. It was decided to finalize the draft strategy and submit it for adoption by the Meeting of the Parties.

In the light of the global opening of the Convention. the working groups also reviewed the draft and revised rules of procedure for the Meeting of the Parties prepared by the Bureau. with the support of the secretariat. The rules of procedure have been revised to reflect the global membership of the Convention.

The working groups discussed a draft decision on the designation and responsibilities of focal points prepared by the Bureau. with the support of the secretariat. before its submission to the Meeting of the Parties for adoption at its eighth session.

Reporting under the Convention and on Sustainable Development Goal indicator 6.5.2

In accordance with decision VII/2. reporting started with a pilot exercise in 2017 to test the reporting template.

Representatives of UNECE and UNESCO informed the working groups about the initial outcomes of the reporting under the Water Convention and on Sustainable Development Goal indicator 6.5.2. the validation of reports and the data submitted to the United Nations Statistics Division. The working groups were also updated on the next steps in terms of the analysis of the data at the global level. namely in the framework of the report of the Secretary-General on progress towards the Sustainable Development Goals to be submitted to the high-level political forum on sustainable development in 2018. the preparation of a synthesis report on Sustainable Development Goal 6 on clean water and sanitation by UN-Water and the preparation of a global baseline report on indicator 6.5.2 by ECE and UNESCO.

The draft synthesis report will be uploaded to dialogue.unwater.org_for further discussion. The discussion will be held in three rounds. The first round of consultations was held from 2 to 31 May. It was focused on collection of general remarks and comments. The second round will take place from 25 June to 9 July to address the main outcomes of the report. And the third final round of consultations will be held from 31 August to 14 September and will be focused on future steps.

Support for implementation and application of the Convention

The working groups were briefed on the progress achieved in different projects supporting implementation of the Convention in countries of Eastern and South-Eastern Europe. the Caucasus and Central Asia.

The Program of strategic actions was drafted in the Chu-Talas project; the work on Transboundary diagnostic analysis. data exchange and relationships building is under development in the Drin River Basin; the GEF project was started in the Dniester River Basin; an expedition was undertaken in October 2017 and a meeting was held in May 2018 as part of hydrological cooperation project between Afghanistan and Tajikistan. The project of cooperation on water quality continues its work in Central Asia. The cooperation project on dam safety in Central Asia has gained very positive assessment from the project valuation committee.

The member of the Implementation Committee D.R.Ziganshina informed about the outcomes of the ninth meeting of the Implementation Committee (Geneva. 7–9 March 2018) and the preparation of the Committee's report to the Meeting of the Parties. She noted that. in the recent years. activities of the Committee were focused on the analysis of national country reports. Considering that the term of five members of the Committee will expire at the next session of the Meeting of the Parties. the procedures for nomination and election of candidates were recalled.

Identifying. assessing and communicating the benefits of transboundary water cooperation

The working groups were briefed on progress in the application of the Policy Guidance Note in a number of basins worldwide. such as the Okavango. Sio-Malaba-Malakisi and Drina River basins. and the outcomes of the global workshop. "Moving forward transboundary water cooperation: Building on its benefits" (Geneva. 6–7 February 2018). The plans for preparing a summary brochure on the outcomes of the benefit assessment exercises was also presented. The participants were invited to provide their comments on the structure and key messages of the brochure.

The water-food-energy-ecosystems nexus in transboundary basins

The progress achieved in this area of work was presented and discussed. in particular the assessment for the Drina. the ongoing assessment of the North-Western Sahara Aquifer System. the work undertaken in the Drin basin and experience sharing to support application of the nexus approach in the Niger basin.

On 28 May 2018 in the first half of the day. a special session was devoted to this issue to discuss the synthesis publication. which would summarize the assessments of the water-food-energy-ecosystem nexus in transboundary basins. Representatives of the countries and organizations participating in this topic of work. including from the Syr Darya basin. were invited to this meeting. The participants discussed lessons learned from the assessments and further possible activities. including recommendations for future application of the assessment methodology. The assessments of the water-food-energy-ecosystem nexus can be found on: http://www.unece.org/env/water/publications/pub.html.

Participants were also informed about the outcomes of the global workshop on water allocation in the transboundary context (Geneva. 16–17 October 2017).

Adapting to climate change in transboundary basins

Participants were briefed on the outcomes of the "International Workshop on Water Scarcity: Taking action in transboundary basins and reducing health impacts" (Geneva. 11−12 December 2017). a joint activity under the Water Convention and the Protocol on Water and Health. and the ninth meeting of the Task Force on Water and Climate (Geneva. 13 December 2017).

The working groups also reviewed progress on the pilot projects and other activities on climate change adaptation under the Convention. Presentations on adaptation measures in basins were made by G.Satymkulova (Chu-Talas) and A.Bon (Dniester).

Participants also reviewed and provided comments to the draft Words into action "Implementation Guide for Addressing Water-Related Disasters and

Transboundary Cooperation".

Water and industrial accidents

The working groups reviewed progress in the implementation of the work plan for 2017–2018 of the Joint Ad Hoc Expert Group on Water and Industrial Accidents and discussed the draft guidance on firefighting water retention in a transboundary context.

European Union Water Initiative and National Policy Dialogues

Participants were updated on recent developments in the European Union Water Initiative National Policy Dialogues on Integrated Water Resources Management (facilitated by ECE) and Water Supply and Sanitation (facilitated by the Organization for Economic Cooperation and Development). In many countries of the region. the focus of the national dialogues is on elaboration of a national water strategy (Azerbaijan. Belarus. Georgia. and Ukraine).

A representative of the Belarus Ministry of Natural Resources and Environmental Protection told about measures undertaken in the country for implementation of the main provisions of the Water Convention.

Participants expressed their concerns over the reduction of the financing for dialogues in Central Asia.

International Water Assessment Centre

The International Water Assessment Centre was officially opened in Kazakhstan on 7 December 2018. The Director of the Centre briefed the working groups on the Centre's terms of reference and planned activities.

The memorandum of cooperation was signed between the Centre and the SIC ICWC of Central Asia during the session.

Program of work for 2009-2021

Participants were informed in detail of the outcomes of the consultative process of the development of the program of work for 2019–2021. which consisted of discussions in the different intergovernmental bodies. an online survey and selected interviews. On this basis. a draft program of work for 2019–2021 had been prepared by the Bureau. It consists of the following program areas:

Program area 1: Increasing awareness of and accession to the Convention and application of its principles drawing on the benefits of cooperation

Program area 2: Supporting monitoring. assessment and information sharing in transboundary basins

Program area 3: Promoting an integrated and intersectoral approach to water management at all levels

Program area 4: Adapting to climate change in transboundary basins

Program area 5: Facilitating financing of transboundary water cooperation

Program area 6: Reporting on Sustainable Development Goal indicator 6.5.2 and under the Convention

Program area 7: Partnerships. communication and knowledge management.

Representative of SIC ICWC D.R.Ziganshina thanked the secretariat and the Bureau for the work done and maximum possible consideration of the suggestions made by the Parties and concerned organizations in the preparation of the Programme

of work. SIC ICWC is ready to render partner's support in implementation of the proposed areas. particularly through its involvement in the working group on water allocation in transboundary basins. SIC ICWC is also willing to cooperate in monitoring of water bodies through remote sensing. Experience of similar work is already available.

Preparation for the eighth session of the Meeting of the Parties

The representative of Kazakhstan Mukhtar Zhakenov reported on the organizational preparations for the Meeting of the Parties in Astana. for which approx. $500.000 were allocated. All were invited to take part in this event as participants or organizers of side events.

D.R. Ziganshina

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6) UN and its specialized agencies;

7) International water organizations and initiatives;

8) Activity of international partners in CA;

9) Water education;

10) Science and innovations;

11) Key water developments around the world;

12) Thematic reviews: China's "One Belt. One Road" Initiative. Climate change. Sustainable Development Goals;

13) Publications;

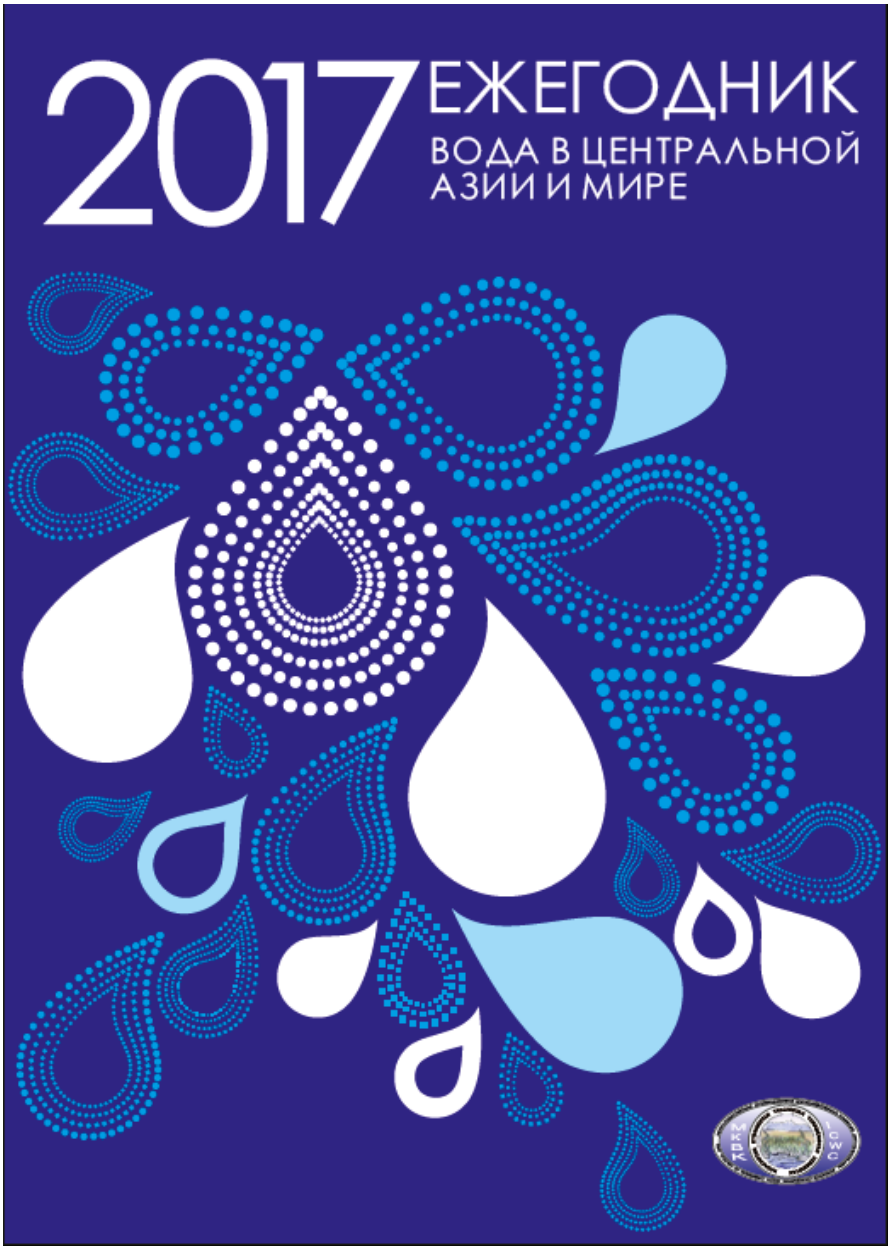
14) Water-related awards in CA;

15) Risks 2018; and

16) 2018 Calendar of events.

We thank all organizations and individuals who contributed to this *Yearbook*.

The online edition of the Yearbook is freely available on the CaWater-Info.net portal www.cawater-info.net/yearbook/


2017
ЕЖЕГОДНИК
ВОДА В ЦЕНТРАЛЬНОЙ АЗИИ И МИРЕ

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100187, Republic of Uzbekistan,
SIC ICWC

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sic.icwc-aral.uz