Interstate Commission for Water Coordination of Central Asia

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Minutes of the 86th meeting of the Interstate Commission for Water Coordination (ICWC) of the Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan and Republic of Uzbekistan

April 12, 2024	Shymkent city			
Chairman of the meeting:				
Nurjan M. Nurjigitov	Minister of Water Resources and Irrigation, Republic of Kazakhstan			
ICWC members:				
Daler Shofakir Djuma	Minister of Energy and Water Resources, Republic of Tajikistan			
Durdy M. Gendjiev	Chairman of the State Committee for Water Resources, Turkmenistan			
Shavkat R. Khamraev	Minister of Water Management, Republic of Uzbekistan			
ICWC executive bodies:				
Umar A. Nazarov	Head, ICWC Secretariat			
Makhmud Ya. Makhramov	Head, BWO Amu Darya			
Odil A. Kholhujaev	Head, BWO Syr Darya			
Dinara R. Ziganshina	Director, Scientific-Information Center (SIC) of ICWC			

Mereke Ye. Imangaliev	Deputy Head, BWO Syr Darya,
	Representative of the Republic of Kazakhstan
Alisher M. Nazariy	Deputy Director, SIC ICWC
Nurbibi Kh. Khodjaeva	Representative, ICWC Secretariat
Invited:	
Republic of Kazakhstan	
Aidar J. Abishev	Ambassador at large, Ministry for Foreign Affairs
Ermek Kenjekhanuli	Deputy akim, Turkestan region
Bakhyt D. Jakhanov	Deputy akim, Kyzylorda region
Nikolai V. Jumakonov	Director, International Legal Department, Ministry for Foreign Affairs
Daniyar E. Daniyar	Deputy Director, International Cooperation Department, Ministry of Water Resources and Irrigation
Nariman K. Kipshakbaev	Director, Kazakhstan branch of SIC ICWC
Republic of Tajikistan	
Daler A. Abdurazokzoda	Head of Central Water and Energy Policy Administration, Ministry of Energy and Water Resources

Turkmenistan

Yanov D. Paschiev	Head of Water Use Department, State Committee for Water Resources
Tirkesh Y. Nurgeldiev	Head of Water Use Division, State Committee for Water Resources
Saparmirat Chariev	Chief expert, Digital Technology and Information Security Division, State Committee for Water Resources
Republic of Uzbekistan	
Ilkhom U. Djuraev	Head of Information-Analytical and Resource Center, Ministry of Water Management
Otabek N. Khazratov	Head of International Relations and Global Trade Organization Division, Ministry of Water Management

Kyrgyz Republic (as observers)

Almazbek T. Sokeev	Deputy Minister of Water Resources,			
	Agriculture and Processing Industry,			
	Director of Water Resources Service			
Abdibay Sh. Djayloobaev	Deputy Director, Water Resources Service, Ministry of Water Resources, Agriculture and Processing Industry			

Executive Committee of IFAS:

Orazbay T. Askhat	Chairman, EC IFAS
Serik A. Bekmaganbetov	Representative of Kazakhstan in EC IFAS
Representatives of international or	rganizations
Igor Shenberger	USAID

Alexander	Nikolaenko	GIZ

Agenda of the 86th ICWC meeting

- 1. Results of the use of water withdrawal limits and reservoir operation regimes in the Syr Darya and Amu Darya River basins during the non-growing season 2023-2024.
- 2. Approval of the country water withdrawal limits and forecast operation regimes of the reservoir cascades in the Syr Darya and Amu Darya River basins for the growing season 2024.
- 3. Progress on fulfillment of the tasks arising from the initiatives of the Heads of IFAS Founder States
- 4. On the agenda of the next regular meeting of the 87th ICWC meeting
- 5. Additional issues.

Decision on the first item:

1. Take into consideration the reports by BWO Syr Darya and BWO Amu Darya on the results of the use of water withdrawal limits and operation regimes of reservoirs in the Syr Darya and Amu Darya basins during the non-growing season 2023-2024.

Decision on the second item:

1. Approve country water withdrawal limits for the growing season 2024 in the Syr Darya and Amu Darya River basins (Appendices 1-2).

2. Take into consideration the forecast operation regimes of the reservoir cascades for the growing season 2024 in the Syr Darya (Appendix 3) and Amy Darya (Appendix 4) basins, as proposed by BWO Syr Darya and BWO Amu Darya.

3. BWO Syr Darya and BWO Amu Darya shall ensure monitoring of operation regime of the reservoirs.

Decision on the third item:

- 1. Acknowledge the work done by water management organizations and ICWC executive bodies on implementation of proposals and initiatives put forward by the Heads of IFAS Founder States at their Summits in Turkmenbashi (2018) and Dushanbe (2023).
- 2. ICWC Executive bodies shall submit the updated information on fulfillment of the tasks set at the IFAS summits at subsequent meetings.
- 3. Recognize the importance of strengthening training activities at regional and national levels and assign SIC ICWC to work with international partners to get timely information on plans for regional workshops and post the workshop materials on the ICWC website.

Decision on the fourth item:

1. Hold the next regular 87th ICWC meeting in Turkmenistan. The date of the next regular ICWC meeting should be agreed in working order.

2. Propose the next agenda for the regular 87th ICWC meeting

Decision on the fifth item:

1. Acknowledge significant contribution of honorary ICWC members to the development of regional cooperation.

2. Create an organizing committee for the celebration of the 90th anniversary of the honorary members of the ICWC, V. A. Dukhovniy and N. K. Kyshakbaev, 80th anniversary of honorary member of the ICWC R. A. Giniatullin

Republic of Kazakhstan	N.M. Nurjigitov
Kyrgyz Republic	
Republic of Tajikistan	D.Sh. Djum'a
Turkmenistan	D.M. Gendjiev
Republic of Uzbekistan	Sh. R. Khamraev

Appendix 1

Forecast operation regime of Narin-Syr Darya reservoirs cascade

(April 1- September 30, 2024)

Item	Unit	April	May	June	July	August	September	Total, mcm
Toktogul reservoir								
Inflow to the reservoir	m ³ /s mcm	373	540	1064	698	495	374	
Volume: beginning of the season	mcm	967	1446	2758	1870	1326	969	9336
end of the season	mcm	7277	7565	8079	9657	10215	10448	
Water releases from the reservoir	m ³ /s mcm	7565	8079	9657	10215	10448	10842	
		262	348	455	490	408	222	
		679	932	1179	1312	1093	575	5771
Discharge from Uchkurgan HPP	m ³ /s	300	330	480	470	390	190	
(by protocol of April 11, 2024)	mcm	778	884	1244	1259	1045	492	5702
		Bakł	nri Tojik					
Inflow to the reservoir	m^3/s	394	397	316	300	300	268	
(Akdjar g/s)	mcm	1021	1064	820	805	804	694	5207
Volume: beginning of the season	mcm	3315	3466	3557	3011	2136	1586	
end of the season	mcm	3466	3557	3011	2136	1586	1698	
Water releases from the reservoir	m^3/s	340	340	460	550	441	200	
	mcm	881	911	1191	1473	1181	518	6156
Shardara reservoir								
Inflow to the reservoir	m ³ /s	430	330	200	135	143	166	

Item	Unit	April	May	June	July	August	September	Total,
	mcm	1116	884	518	362	382	430	3692
Volume: beginning of the season	mcm	4821	4957	4609	3442	2020	1042	
end of the season	mcm	4957	4609	3442	2020	1042	1031	
Water releases from the reservoir	m^3/s	300	400	550	500	450	150	
	mcm	778	1071	1426	1339	1205	389	6208
Water releases into Kyzylkum canal	m ³ /s	60	40	60	106	38	10	
	mcm	156	107	156	284	102	26	830
Supply to the Aral Sea	m ³ /s	130	70	30	30	40	80	
	mcm	337	187	78	80	107	207	997
		Charva	k reservoir					
Inflow to the reservoir	m ³ /s	232	410	508	370	208	123	
	mcm	602	1098	1316	992	558	319	4885
Volume: beginning of the season	mcm	611	896	1397	1901	1984	1858	
end of the season	mcm	896	1397	1901	1984	1858	1711	
Water releases from the reservoir	m ³ /s	137	223	313	339	255	180	
(Water discharge from Gazalkent HPP)	mcm	354	597	812	909	684	467	3823
		Andija	n reservoir					
Inflow to the reservoir	m ³ /s	158	227	280	139	61	50	
	mcm	410	609	726	372	164	130	2411
Volume: beginning of the season	mcm	957	1102	1313	1572	1295	1049	
end of the season	mcm	1102	1313	1572	1295	1049	1062	
Water releases from the reservoir	m ³ /s	102	149	180	242	153	45	
	mcm	264	398	467	649	410	117	2303

Note: Inflow to the Shardara reservoir is expected to be 3190 mcm by BWO Syr Darya calculation, based on Uzhydromet's forecasts

Forecast operation regime of the Nurek and Tuyamuyun reservoirs (April-September, 2024)

Nurek reservoir		Forecast						Total	
Indiek leselvoli		April	May	June	July	August	September	Total	
Volume: beginning of the season	mcm	6023	6115	6477	8388	9603	10167	6023	
Inflow to the reservoir	m ³ /s	400	670	1333	1371	1261	653		
innow to the reservoir	mcm	1037	1795	3456	3672	3378	1693	15032	
Water releases from the reservoir	m ³ /s	370	580	637	990	1061	517		
water releases from the reservoir	mcm	959	1554	1650	2652	2843	1339	10998	
Volume: end of the season	mcm	6115	6477	8388	9603	10167	10522	10522	
Accumulation(+),drawdown(-)	mcm	92	362	1910	1215	564	354	4499	
		Forecast							
Tuyamuyn reservoir		April	May	June	July	August	September	Total	
Volume: beginning of the season	mcm	2973	2746	3204	3911	4114	3580	2973	
Inflow to the reservoir	m ³ /s	312	841	1273	1425	1050	573		
innow to the reservoir	mcm	810	2254	3299	3817	2813	1485	14477	
Weter the first the second	m ³ /s	400	670	1000	1350	1250	700		
Water releases from the reservoir	mcm	1037	1795	2592	3615	3347	1814	14200	
Volume: end of the season	mcm	2746	3204	3911	4114	3580	3250	3250	
Accumulation(+),drawdown(-)	mcm	-227	458	707	203	-534	-330	277	

Appendix 3

Water user state	Suggested limits, mcm
Republic of Kazakhstan (Dustlic canal)	922
Kyrgyz Republic	270
Republic of Tajikistan	1905
Republic of Uzbekistan	8800
Total:	11897

Appendix 4

	Water withdrawal limit, mcm				
River basin, state	Total annual (1.10.23- 1.10.24)	Including growing season (1.04.24- 1.10.24)			
Total withdrawal from the Amu Darya river	55429	39702			
including:					
Republic of Tajikistan	9859	6982			
Republic of Uzbekistan	1570	1200			
From the Amu Darya River to the nominal Kerki gauging station	44000	31520			
Turkmenistan	22000	15500			
Republic of Uzbekistan	22000	16020			
In addition:					
- water supply to the river delta and the Aral Sea, including irrigation water releases and CDW	4200	2100			
- sanitary and environmental flow into irrigation systems:	800				
Dashoguz province	150				
Khorezm province	150				
Republic of Karakalpakstan	500				

Limits of water withdrawal from the Amu Darya River and water supply to the river delta and the Aral Sea for the growing season 2024

Results of the use of water withdrawal limits and operation regimes of the reservoirs in the Amu Darya and Syr Darya River basins for the nongrowing season 2023-2024¹

1. Amu Darya River basin

The actual water availability in the Amu Darya River basin at the nominal Kerki gauging station (upstream of Garagumdarya) was 72.9% of the norm over the non-growing season 2023-2024. The estimation was made by taking into account the natural flow in the Vakhsh River and flow regulation by the Nurek reservoir. During the past non-growing season, this figure was 83.2 % of the norm.

The use of approved water withdrawal limits over the reporting nongrowing season is as follows (breakdown by states):

In the current water context, the approved water withdrawal limits for the basin were used by 88.7%, given the water withdrawal limit was 15 727.7 mcm, the actually used volume was 13 948.5 mcm, of which:

- Republic of Tajikistan: actually used 2655.9 mcm or 92.3 % of the total limit;
- Turkmenistan: actually used 6014.2 mcm or 92.5 % of the total limit;
- Republic of Uzbekistan: actually used 5278.4 mcm or 83.1 % of the total limit;

Water user state	Water withdrawal limits, mcm	Actual mcm	%% of use
Republic of Tajikistan	2877.7	2655.9	92.3
Turkmenistan	6500.0	6014.2	92.3
Republic of Uzbekistan	6350.0	5278.5	83.1
Total	15727.7	13948.5	88.7

¹ Information on the first item of the 86th ICWC meeting agenda.

The use of water withdrawal limits downstream of the nominal Kerki gauging station (upstream of Garagumdarya) was 87.9 % of the total limit for the non-growing season 2023-2024, including:

Republic of Uzbekistan: actually used 4955.3 mcm or 82.9 % of the total limit;

Turkmenistan: actually used 6014.2 mcm or 92.5 % of the total limit;

Water user state	Water withdrawal limits, mcm	Actual, mcm	%% of use
Downstream of the nominal Kerki g/s	12480	10969.5	87.9
Turkmenistan	6500	6014.2	92.5
Republic of Uzbekistan	5980	4955.3	82.9

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

- Upper reaches 2979.1 mcm or 91.7 % of the total limit, including Tajikistan – 2655.9 mcm or 92.3 % of the total limit, Uzbekistan – 323.2 mcm or 87.4% of the total limit.
- Middle reaches 7953.8 mcm or 95.3 % of the total limit, including Turkmenistan – 5015.5 mcm or 98.3 % of the total limit, Uzbekistan – 2938.3 mcm or 90.5 % of the total limit.
- Lower reaches- 3015.7 mcm or 72.9 % of the total limit, including Turkmenistan – 998.6 mcm or 71.3 % of the total limit, Uzbekistan – 2017.1 mcm or 73.8 % of the total limit.

Water user state	Water withdrawal limits, mcm	Actual mcm	%% of use
Upper reaches	3247.7	2979.1	91.7
Republic of Tajikistan	2877.7	2655.9	92.3
Republic of Uzbekistan	370.0	323.2	87.4
Middle reaches	8345.0	7953.8	95.3
Turkmenistan	5100.0	5015.5	98.3
Republic of Uzbekistan	3245.0	2938.3	90.5
Lower reaches	4135.0	3015.7	72.9
Turkmenistan	1400.0	998.6	71.3
Republic of Uzbekistan	2735.0	2017.1	73.8

Water supply to the river delta and the Aral Sea was planned to be 2100 mcm during the non-growing season. However, actual supply was 1242 mcm or 59.1%.

Forecast operation regimes of the Nurek and Tuyamuyun reservoirs were calculated based on normal water availability.

Inflow to the Nurek reservoir was expected to be 4034 mcm during the non-growing season; however, the actual inflow was 3796 mcm or 94.1 %. Water releases from the reservoir were planned in the volume of 7789 mcm, and actually it was 7602 mcm or 97.6 %.

Volume of water in the reservoir by the end of the non-growing season 2023-2024 was planned to be 6393 mcm and actually made up 6023 mcm or 94.2 %.

Inflow to the Tuyamuyun reservoir was expected to be 5772 mcm during the non-growing season and the actual inflow was 4801mcm or 83.2 %. Water releases from the reservoir were planned in the volume of 6381mcm while the actual water releases were 5293 mcm or 82.9 %.

Volume of water in the reservoir was planned to be 2876 mcm by the end of the non-growing season and actually it was 2973 mcm or 103.4 %.

Item		Unit	Nurek reservoir	Tuyamuyun reservoir
Volume: beginning of the season		mcm	10511	3480
	forecast	mcm	4034	5772
Inflow to the reservoir	actual	mcm	3796	4801
		%%	94.1	83.2
	forecast	mcm	7789	6381
Water releases from the reservoir	actual	mcm	7602	5293
		%%	97.6	82.9
	forecast	mcm	6393	2876
Volume: end of the season	actual	mcm	6023	2973
		%%	94.2	103.4
	forecast	mcm	-4118	-604
Accumulation(+), drawdown (-)	actual	mcm	-4488	-507
		%%	109.0	83.9

More detailed information is provided in Tables below:

Item	Water withdrawal limits, mcm	Actual mcm	%%
Upper Darya Division	3247.7	2979.0	91.7
Upper reaches, including			
Tajikistan	2877.7	2655.9	92.3
Uzbekistan	370.0	323.2	87.3
Water withdrawal from the Amu Darya River at nominal Kerki g/s	12480	10969.5	87.9
including:			
Turkmenistan	6500.0	6014.2	92.5
Uzbekistan	5980.0	4955.3	82.9
Middle Darya Division	8345	7953.76	95.3
Middle reaches, including			
Turkmenistan	5100	5015.5	98.3
Uzbekistan	3245	2938.2	90.5
Lower reaches, including:	4135	3015.7	72.9
Turkmenistan	1400.0	998.6	71.3
Uzbekistan:	2735.0	2017.1	73.8
In addition, environmental flow, total	800	540.5	67.6
including Karakalpakstan	500	333.0	66.6
Dashoguz province	150	131.3	87.5
Khoresm province	150	76.2	50.8
Total for the basin:	15727.7	13948.5	88.7
including			
Tajikistan	2877.7	2655.9	92.3
Turkmenistan	6500.0	6014.2	92.5
Uzbekistan	6350.0	5278.5	83.1

Analysis of the use of water withdrawal limits in the Amu Darya River basin for the non-growing season 2023-2024

Item	October	Novembe r	Decembe r	January	February	March	Actual
From the Amu Darya river to Samanbay g/s	237	214	122	30	22	19	644
Total water discharge from Dustlik and Suenli canal system	57	70	83	34	27		271
CDC	94	42	28	30	26	107	327
TOTAL:	388	326	233	94	75	126	1242
Cummulative	388	714	947	1041	1116	1242	

Water supply to the river delta and the Aral Sea (non-growing season 2023-2024), mcm

Nurek reservoir	unit			act	ual			Total
Nurek reservoir	umi	October	November	December	January	February	March	Total
Volume: beginning of the season	mcm	10511	10403	9946	8992 7941 6705		6705	10511
Inflow to the reservoir	m ³ /s	318	255	236	213	190	232	
Innow to the reservoir	mcm	852	662	632	571	459	621	3796
Water releases from the	m ³ /s	352	412	562	565	594	424	
reservoir	mcm	943	1068	1504	1513	1437	1137	7602
Volume: end of the season	mcm	10403	9946	8992	7941	6705	6023	6023
Accumulation(+), drawdown (-)	mcm	-108	-458	-954	-1051	-1236	-682	-4488

Actual operation regimes of the Nurek and Tuyamuyun reservoirs (October 2023 – March 2024)

	unit.		Total					
Tuyamuyun reservoir	uiiii.	October November		December	December January		March	Total
Volume: beginning of the season	mcm	3480	3668	3950	4272	4507	4091	3480
Inflow to the reservoir	m ³ /s	344	301	275	238	292	379	
Inflow to the reservoir	mcm	921	781	737	639	706	1016	4801
Water releases from the	m ³ /s	274	192	155	151	458	797	
reservoir	mcm	734	499	416	404	1107	2134	5293
Volume: end of the season	mcm	3668	3950	4272	4507	4091	2973	2973
Accumulation(+), drawdown (-)	mcm	188	283	321	235	-416	-1118	-507

2. Syr Darya River basin

I. Forecast of inflow

On September 27, 2023, the forecast for the non-growing season 2023-2024 was received from Uzhydromet.

On October 4, 2023, the expected operation regime of Toktogul reservoir was provided by Coordination Dispatch Center (CDC) "Energy".

The forecast operation schedule of the Charvak reservoir was provided by the State Unitary Enterprise (SUE) "National Dispatch Center", agreed with JSC "Uzbekhydroenergy".

The forecast operation schedule of the Andijan reservoir was provided by JSC "Uzbekhydroenergy".

The forecast operation schedule of Shardara reservoir was provided by the Committee of Water Management at the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan.

According to the received forecast data, the inflow to the upper reservoirs is expected to be as follows:

- Toktogul reservoir 93%;
- Andijan reservoir—91%;
- Charvak reservoir– 94% of the norm.

The total lateral inflow is expected to be 85% of the norm.

Overall, the water availability is expected at the level of 88% of the norm in the Syr Darya River basin.

The forecast operation schedule of the Narin-Syr Darya reservoir cascade for the non-growing season was taken into account at the 85 ICWC meeting and water withdrawal limits of water-user states in the Syr Darya River basin were approved.

The actual water situation from October 1, 2023 to March 31, 2024 is characterized as the following:

II. Total inflow (Table 2.1).

The total inflow (water availability) in the Syr Darya River basin for the non-growing season:

Norm -- 16 501 mcm.

According to Uzhydromet forecast, the total inflow was expected to be 14 483 mcm or 88% of the norm.

Actual total inflow is 15 130 mcm, which is 647 mcm more or 104% of the forecast and 92% of the norm.

III. Inflow to upper reservoirs (Table 2.1).

The norm of inflow to the upstream reservoirs of the Naryn-Syr Darya cascade is 5307mcm.

The inflow was expected to be 4945 mcm or 93% of the norm by forecast.

Actually, 5304 mcm was received by upstream reservoirs, which is 359 mcm more or 107% of the forecast (100% of the norm):

Inflow to the Toktogul reservoir:

Norm - 2945 mcm

Forecast - 2746 mcm

Actual inflow to the reservoir was 3108, which is 362 mcm more or 113% of the forecast (106% of the norm)

Inflow to the Andijan reservoir:

Norm - 934 mcm

Forecast - 851 mcm

Actually 720 mcm was received, which is 131 mcm less or 85% of the forecast (77% of the norm).

Inflow to the Charvak reservoir:

Norm - 1428 mcm

Forecast - 1348 mcm

The actual inflow was 1476 mcm, which is 128 mcm more or 109% of the forecast (103% of the norm).

IV. Lateral inflow (Table 2.1).

The lateral inflow to the Syr Darya River river basin from Toktogul reservoir up to Shardara reservoir:

Norm - 11 194 mcm.

According to Uzhydromet **forecast**, the lateral inflow was expected to be 9538 mcm or 85% of the norm.

The actual lateral inflow was 9826 mcm, which is 288 mcm more or 103% of the forecast (88% of the norm).

V. Inflow to in-stream reservoirs and water supply to the Aral Sea (Table 2.2)

The inflow to the Bakhri Tojik reservoir was expected to be 11 008 mcm according to the forecast for the non-growing season.

The actual inflow to the reservoir was 10 749 mcm, which is less by 259 mcm or 98% than forecast schedule

The inflow to the Shardara reservoir was expected to be 11 171 mcm of the forecast schedule.

According to Uzhydromet data (Chinaz g/s-Syrdarya+Bozsu g/s+ Keles g/s), the actual inflow to the reservoir was 10 313 mcm, which is less by 858 mcm of the forecast schedule.

According to RSE "KazHydromet" (g/s Kokbulak+Keles g/s), 10 202 mcm were actually supplied to the reservoir, which is less by 969 mcm of the forecast schedule.

The inflow to the Shardara reservoir, according to the calculation of BWO Syr Darya, based on the forecast data of UzHydromet, was expected to be 10 121 mcm.

The inflow to the Aral Sea and the Aral Sea region was expected to be 1619 mcm according to the forecast schedule, the actual inflow to Karateren gauging station was 1273 mcm.

Table 2.1

	Non-growing season, mcm												
		Oct	ober 1, 202.	3- March	31, 2024			Octo	ber 1, 2022	- March	31, 2023		
	norm	forecast	forecast/ norm (%)	actual	actual/ forecast (%)	actual/ forecast (%)		norm	forecast	forecast/ norm (%)	actual	actual/ forecast (%)	actual/ norm (%)
					Inflow to	o upper res	erv	oirs					
Toktogul	2945	2746	93	3108	113	106		2882	2882	100	2882	100	100
Andijan	934	851	91	720	85	77		929	782	84	676	86	73
Charvak	1428	1348	94	1476	109	103		1422	1261	89	1535	122	108
Total	5307	4945	93	5304	107	100		5233	4925	94	5093	103	97
					La	teral inflov	V						
Toktogul – Uchkurgan	400	372	93	334	90	83		398	398	100	386	97	97
Andijan – Uchtepe	2546	2056	81	2054	100	81		2533	2202	87	2229	101	88
Uchkurgan, Uchtupe – Bakhri Tojik	4423	3633	82	3931	108	89		4397	3925	89	4213	107	96
– Shardara	2987	2687	90	2764	103	93		2969	2670	90	3138	118	106
Gazalkent- Chinaz	838	790	94	743	94	89		833	786	94	790	101	95
Total	11194	9538	85	9826	103	88		11130	9981	90	10756	108	97
Overall (total	16501	14483	88	15130	104	92		16363	14906	91	15849	106	97

inflow)

Table 2.2

	Non-growing season, mcm October 1, 2023- March 31, 2024					Octo	Non-grow ober 1, 2022-	ing season • March 31, 2	023		
	Scheduled	Actual	Deviation (actual "_" schedule)	Actual/ schedule (%)		Scheduled	Actual	Deviation (actual "_" schedule)	Actual/ schedule (%)		
Inflow to in-stream reservoirs											
Inflow to the Bakhri Tojik reservoir	11008	10749	-259	98		9840	12471	2631	127		
Inflow to the Shardara reservoir	11171	10313	-858	92		10779	14255	3476	132		
	Supply to the Aral Sea										
Supply to the Aral Sea	1619 1273 -346 79 1585 1671 86							86	105		

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	С	Water rele October 1, 2023-		024	Water releases, mcm October 1, 2022- March 31, 2023					
Reservoir	Operation schedule NSRC	schedule Actual (actual Actual Open		Operation schedule NSRC	Actual	Deviation (actual "_" schedule)	Actual/ schedul e %			
Upper reservoirs										
Toktogul	8212	7572	-640	92	6639	8560	1921	129		
Andijan	820	523	-297	64	681	676	-5	99		
Charvak (discharge of Gazalkent HPP)	2364	2342	-22	99	2097	2392	295	114		
TOTAL:	11396	10437	-959	92	9417	11628	2211	123		
In-stream reservoirs										
Bakhri Tojik	9500	9076	-424	96	8386	12637	4251	151		
Shardara	6988	4218	-2770	60	6916	8707	1791	126		
TOTAL:	16488	13294	-3194	81	15302	21344	6042	139		
OVERALL:	27884	23731	-4153	85	24719	32972	8253	133		

Water volume in reservoir, mcm										
Reservoir	Actual as of October 1, 2023	Δ cfual a		Deviation (actual "_" schedule)	Actual as of April 1, 2023	Deviation (actual 2024 "_" actual 2023)				
Upper reservoirs										
Toktogul	11748	6278	7277	999	7939	-662				
Andijan	775	806	957	151	896	61				
Charvak	1531	512	611	99	652	-41				
TOTAL:	14054	7596	8845	1249	9487	-642				
In-stream reservoirs										
Bakhri Tojik	1694	3444	3315	-129	3448	-133				
Shardara	1008	5186	4821	-365	4994	-173				
TOTAL:	2702	8630	8136	-494	8442	-306				
OVERALL:	16756	16226	16981	755	17929	-948				

VI. Water releases from the reservoirs (Table 2.3).

According to forecast operation schedule of the Narin-Syr Darya reservoir cascade, 27 884 mcm were to be released from the reservoirs over the non-growing season.

The actual water releases were 23 731 mcm, which is less by 4153 mcm or 85% of the forecast schedule:

-8212 mcm were scheduled to be released from the Toktogul reservoir, the actual water releases were 7572 mcm

-820 mcm were scheduled to be released from the Andijan reservoir, the actual water releases were 523 mcm

- 2364 mcm were scheduled to be released from the Charvak reservoir, the actual water releases were 2342 mcm

-9500 mcm were scheduled to be released from the Bakhri Tojik reservoir, the actual water releases were 9076 mcm

-6988 mcm were scheduled to be released from the Shardara reservoir, the actual water releases were 4218 mcm

VII. Water storage in the reservoirs (Table 2.4)

The water storage in the Naryn-Syr Darya reservoir cascade actually was 16 756 mcm by the beginning of the non-growing season (as of October 1, 2023).

The water storage was expected to be 16 226 mcm by the end of the nongrowing season (as of April 1, 2024) according to the forecast schedule.

The actual water storage was 16 981 mcm by the end of the nongrowing season, which is more by 755 mcm of the forecast schedule.

In the upper reservoirs, the water storage was 14 054 mcm by the beginning of the non-growing season.

The water storage was expected to be 7596 mcm by the end of the nongrowing season according to the forecast schedule, the actual water storage was 8845 mcm, which is more by 1249 mcm of the forecast schedule. By reservoirs:

6278 mcm were planned to be accumulated in the Toktogul reservoir, the actual water volume amounted to 7277 mcm, which is more by 999 mcm of the forecast schedule.

According to the forecast, the water volume was expected to be 806 mcm in the Andijan reservoir, the actual water volume amounted to 957 mcm, which is more by 151 mcm of the forecast schedule.

The water volume was expected to be 512 mcm in the Charvak reservoir according to the forecast schedule, the actual water volume amounted to 611 mcm, which is more by 99 mcm of the forecast schedule.

The water storage was 2702 mcm in in-stream reservoirs by the beginning of the non-growing season.

The water storage was expected to be 8630 mcm by the end of the nongrowing season according to the forecast schedule, the actual water volume amounted to 8136 mcm, which is less by 494 mcm of the forecast schedule.

By reservoirs:

The water storage was expected to be 3444 mcm in the Bakhri Tojik reservoir, the actual water volume amounted to 3315 mcm, which is less by 129 mcm of the forecast schedule.

The water storage was expected to be 5186 mcm in the Shardara reservoir, the actual water volume amounted to 4821 mcm, which is less by 365 mcm of the forecast schedule.

VIII. Water supply to the states (Table 2.5).

According to the approved limits and submitted requests of water consumers, water was supplied to water user countries from October 1, 2023 to March 31, 2024 in the following amounts:

Republic of Kazakhstan at the limit of 487 mcm, actual – 493 mcm;

Kyrgyz Republic at the limit of 47 mcm, actual -12 mcm

Republic of Tajikistan at the limit of 365 mcm, actual - 40 mcm

Republic of Uzbekistan at the limit of 3347 mcm, actual -3328 mcm

The actual total volume of water withdrawal by water user states amounted to 3873 mcm, given the limit of 4246 mcm.

Water user state	Water withdrawals, mcm October 1, 2023- March 31, 2024				
	Limit	Actual			
Republic of Kazakhstan (Dustlik canal)	487	493			
Kyrgyz Republic	47	12			
Republic of Tajikistan	365	40			
Republic of Uzbekistan	3347	3328			
Total	4246	3873			

Table 2.6 shows the forecast operation schedule of the Naryn-Syr Darya reservoir cascade for the non-growing season 2023-2024 (ICWC-85).

Table 2.7 shows the actual operation schedule of the Naryn-Syr Darya reservoir cascade for the non-growing season 2023-2024.

Forecast operation schedule of the Naryn-Syr Darya reservoir cascade (October 1, 2023- March 31, 2024).

		October	November	December	January	February	March	Total mcm
		Tokto	ogul reservoi	r				
Inflow to the reservoir	m^3/s	228	193	163	148	149	160	
	mcm	611	500	437	396	373	429	2746
Volume: beginning of the season	mcm	11748	11605	10825	9483	7833	6808	
end of the season	mcm	11605	10825	9483	7833	6808	6278	
Water releases from the reservoir	m^3/s	280	494	664	764	558	358	
	mcm	750	1280	1778	2046	1398	959	8212
		Bakhri	Tojik reserv	oir				
Inflow to the reservoir	m^3/s	334	730	954	940	757	468	
(Akdjar g/s)	mcm	893	1891	2554	2517	1897	1255	11008
Volume: beginning of the season	mcm	1694	2024	2742	3209	3373	3445	
end of the season	mcm	2024	2742	3209	3373	3445	3444	
Water releases from the reservoir	m ³ /s	210	470	800	900	750	480	
	mcm	563	1218	2143	2411	1879	1286	9500
		Sharc	lara reservoi	ir				
Inflow to the reservoir	m^3/s	197	540	910	968	880	750	
	mcm	528	1400	2437	2593	2205	2009	11171
Volume: beginning of the season	mcm	1008	1265	1758	2856	3815	4516	
end of the season	mcm	1265	1758	2856	3815	4516	5186	
Water releases from the reservoir	m^3/s	99	350	500	610	600	500	

		October	November	December	January	February	March	Total
	mcm	265	907	1339	1634	1503	1339	6988
Water supply to the Aral Sea	m ³ /s	11,0	30	85	125	165	200	
	mcm	29	78	228	335	413	536	1619
		Char	vak reservoi	r				
Inflow to the reservoir	m ³ /s	101	91	78	70	69	101	
(total of 4 rivers)	mcm	271	237	209	187	173	271	1348
Volume: beginning of the season	mcm	1531	1429	1273	1009	741	571	
end of the season	mcm	1429	1273	1009	741	571	512	
Water releases from the reservoir	m ³ /s	138	152	176	170	137	123	
(Discharge of Gazalkent HPP)	mcm	370	393	473	455	343	330	2364
		Andi	ijan reservoi	r				
Inflow to the reservoir	m ³ /s	48	57	58	50	50	60	
	mcm	129	147	156	134	125	161	851
Volume: beginning of the season	mcm	775	694	707	754	754	817	
end of the season	mcm	694	707	754	754	817	806	
Water releases from the reservoir	m^3/s	78	52	40	50	25	64	
	mcm	210	134	108	134	63	172	820

Note

Inflow to the Shardara reservoir was expected to be 10 121 mcm according to BWO Syr Darya calculation based on Uzhydromet forecast data.

Inflow to the Shardara reservoir was expected to be 11 171 mcm according to the Committee of Water Management of the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan.

Actual operation schedule of the Naryn – Syr Darya reservoir cascade (October 1, 2023- March 31, 2024)

		October	November	December	January	February	March	Total mcm
		Tokto	gul reservoir			• •		
Inflow to the reservoir	m ³ /s	272	208	173	157	159	208	
	mcm	728	538	464	421	399	557	3108
Volume: beginning of the season	mcm	11748	11873	11500	10421	9242	7897	
end of the season	mcm	11873	11500	10421	9242	7897	7277	
Water releases from the reservoir	m^3/s	224	349	575	595	696	444	
	mcm	600	904	1541	1594	1745	1188	7572
		Bakhri '	Tojik reservoi	ir				
Inflow to the reservoir	m ³ /s	320	469	877	792	943	689	
(Akdjar g/s)	mcm	856	1215	2349	2121	2362	1845	10749
Volume: beginning of the season	mcm	1694	2178	2634	2997	3414	3497	
end of the season	mcm	2178	2634	2997	3414	3497	3315	
Water releases from the reservoir	m^3/s	148	251	723	635	900	797	
	mcm	396	651	1937	1701	2255	2136	9076
	-	Shard	ara reservoir			• •		
Inflow to the reservoir	m ³ /s	186	275	865	667	908	1016	
	mcm	498	713	2317	1788	2275	2721	10313
Volume: beginning of the season	mcm	1008	1068	1244	2274	3291	4481	
end of the season	mcm	1068	1244	2274	3291	4481	4821	
Water releases from the reservoir	m ³ /s	101	131	351	256	257	500	
	mcm	270	340	939	686	644	1339	4218

		October	November	December	January	February	March	Total
Water supply to the Aral Sea	m^3/s	18	48	64	143	109	102	
	mcm	47	124	171	383	273	274	1273
		Charv	ak reservoir					
Inflow to the reservoir	m ³ /s	95	90	82	86	85	120	
	mcm	255	234	221	230	214	322	1476
Volume: beginning of the season	mcm	1531	1435	1332	1052	742	509	
end of the season	mcm	1435	1332	1052	742	509	611	
Water releases from the reservoir	m^3/s	131	125	177	187	164	104	
(Discharge of Gazalkent HPP)	mcm	351	324	474	502	412	278	2342
		Andij	an reservoir					
Inflow to the reservoir	m^3/s	42	50	43	48	35	54	
	mcm	112	131	116	130	88	144	720
Volume: beginning of the season	mcm	775	700	712	808	912	953	
end of the season	mcm	700	712	808	912	953	957	
Water releases from the reservoir	m^3/s	68	46	7	8	19	50	
	mcm	181	118	19	22	47	135	523

Approval of country water withdrawal limits and operation regimes of the reservoir cascades for the growing season 2024 in the Amu Darya and Syr Darya River basins²

1. Amu Darya River basin

Water withdrawal limits from the Amu Darya River and water supply to the river delta and the Aral Sea for the growing season 2024

	Water withdrawal limits, mcm				
River basin, state	Total annual (1.10.2023- 1.10.2024	Including growing season (1.04.24- 1.10.24)			
Total withdrawal from the Amu Darya River	55429	39702			
including:					
Republic of Tajikistan	9859	6982			
Republic of Uzbekistan	1570	1200			
From the Amu Darya River to the Kerki nominal gauging station	44000	31520			
Turkmenistan	22000	15500			
Republic of Uzbekistan	22000	16020			
In addition:					
water supply to the river delta and the Aral Sea, including irrigation water releases and CDW	4200	2100			
sanitary and environmental flow into irrigation systems:	800				
Dashoguz province	150				
Khorezm province	150				
Republic of Karakalpakstan	500				

² Information on the second item of the 86th ICWC meeting agenda

Forecast operation regimes of the Nurek and Tuyamuyun reservoirs (April 2024 – September 2024)

Nurek reservoir]	Forecast			Total		
Nurek reservoir		April	May	June	July	August	September	Total		
Volume: beginning of the season	mcm	6023	6115	6477	8388	9603	10167	6023		
Inflow to the reservoir	m ³ /s	400	670	1333	1371	1261	653			
inflow to the reservoir	mcm	1037	1795	3456	3672	3378	1693	15032		
Water releases from the reservoir	m ³ /s	370	580	637	990	1061	517			
water releases from the reservoir	mcm	959	1554	1650	2652	2843	1339	10998		
Volume: end of the season	mcm	6115	6477	8388	9603	10167	10522	10522		
Accumulation(+), drawdown(-)	mcm	92	362	1910	1215	564	354	4499		
Tuyamuyun reservoir		Forecast								
i uyamuyun reservon		April	May	June	July	August	September	Total		
Volume: beginning of the season	mcm	2973	2746	3204	3911	4114	3580	2973		
Inflow to the reservoir	m ³ /s	312	841	1273	1425	1050	573			
	mcm	810	2254	3299	3817	2813	1485	14477		
Watan mlaana fran tha manuain	m ³ /s	400	670	1000	1350	1250	700			
Water releases from the reservoir	mcm	1037	1795	2592	3615	3347	1814	14200		
				· c · · · · · · · · · · · · · · · · · ·		1	1			
Volume: end of the season	mcm	2746	3204	3911	4114	3580	3250	3250		

2. Syr Darya River basin

I. Forecast of inflow

On April 4, 2024, UzHydromet provided the forecast on water availability of the Syr Darya River basin for the growing season 2024, which is expected as follows:

95-105% (100%) of the norm – in the river basins of the southern Fergana Valley

85-95% (90%) of the norm – in the Naryn river basin, in the river basins of the northern Fergana Valley

80-90% (85%) of the norm – in Karadarya and Chirchik river basins

75-85% (80%) of the norm – in the Akhangaran river basin

On March 25, 2024, the Coordination Dispatch Center (CDC) "Energy" provided expected operation regime of the Toktogul reservoir.

The forecast operation schedule of the Charvak reservoir was received from the Ministry of Energy of the Republic of Uzbekistan and was agreed with the Ministry of Water Management of the Republic of Uzbekitan, JSC "Uzbekhydroenergy" and UzHydromet

JSC "Uzbekhydroenergy" provided forecast operation schedule of the Andijan reservoir, which was agreed with the Ministry of Water Management of the Republic of Uzbekistan.

The forecast operation schedule of the Shardara reservoir was received from the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan.

According to the received forecast data, inflow to the upper reservoirs is expected as follows:

- at the level of 95% to the Toktogul reservoir
- 82% to the Andijan reservoir
- 85% of the norm to the Charvak reservoir

The total lateral inflow is expected to be 87% of the norm.

In general, the water availability of the Syr Darya River basin is expected to be at the level 89% of the norm.
II. Total inflow (Table 2.1)

The norm of the total inflow in Syr Darya River basin for the growing season is 29 494 mcm.

By the forecast, the total inflow is expected to be 26 158 mcm (89% of the norm).

III. Inflow to upper reservoirs (Table 2.1)

The norm of inflow to upper reservoirs of the Naryn-Syr Darya cascade for the growing season is 18 531 mcm.

According to the forecast, 16 632 mcm is expected (90% of the norm).

The norm of inflow to the Toktogul reservoir is 9827 mcm.

By forecast, 9336 mcm is expected (96% of the norm).

The norm of inflow to the Andijan reservoir is 2927 mcm.

By forecast, 2411 mcm is expected (82% of the norm).

The norm of inflow to the Charvak reservoir is 5777 mcm.

By forecast, 4885 mcm is expected (85% of the norm).

IV. Lateral inflow (Table 2.1)

The norm of the lateral inflow is 10 963 mcm.

According to the forecast, the lateral inflow is expected to be 9526 mcm (87% of the norm).

V. Water storage in the reservoirs (Table 2.2)

As of October 1, 2024, the total water storage was 16 981 mcm in the reservoirs (including 7963 mcm of dead storage). Water storage in the reservoirs excluding dead storage was 9018 mcm.

Available water resources of the Narin-Syr Darya reservoir cascade are 35 176 (total inflow plus water storage in the reservoirs excluding dead storage) for the growing season 2024.

 $(26\ 158\ mcm + 9018\ mcm = 35\ 176\ mcm)$

Table 2.1

	Growing season, mcm										
Reservoir		2024	1		2023						
	norm	forecast	forecast/norm (%)	norm	forecast	forecast/norm (%)	actual	actual/forecast(%)	actual/ norm (%)		
			Inflow to up	oper reserv	voirs	-		• •			
Toktogul	982 7	9336	95	9802	9806	100	9178	94	94		
Andijan	2927	2411	82	2927	3029	104	2072	68	71		
Charvak	5777	4885	85	5777	5003	87	4209	84	73		
Total:	18531	16632	90	18506	17838	96	15459	87	84		
	Lateral inflow										
Toktogul – Uchkurgan	1216	1155	95	1216	1216	100	782	64	64		
Andijan – Uchtepe	2511	2053	82	2511	2369	94	1454	61	58		
Uchkurgan – Uchtepe – Bakhri Tojik	3349	2685	80	3349	2843	85	2129	75	64		
Bakhri Tojik – Shardara	2985	2843	95	2985	3001	101	2140	71	72		
Gazalkent – Chinaz- Chirchik	902	790	88	902	948	105	785	83	87		
Total:	10963	9526	87	10963	10377	95	7290	70	66		
Overall (total inflow):	29494	26158	89	29469	28215	96	22749	81	77		

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	Water volume in reservoirs, mcm								
Reservoirs	Actual as of April 1, 2024	Actual as of April 1, 2023	Actual as of April 1, 2024 (excluding dead storage)	Actual as of April 1, 2023 (excluding dead storage)	Dead storage	Deviation (as of April 1, 2024 minus April 1 2023)			
			Upper reservoirs						
Toktogul	7277	7939	1777	2439	5500	-662			
Andijan	957	896	807	746	150	61			
Charvak	611	652	185	226	426	-41			
TOTAL:	8845	9487	2769	3411	6076	-642			
		Iı	n-stream reservoirs						
Bakhri Tojik	3315	3448	2398	2531	917	-133			
Shardara	4821	4994	3851	4024	970	-173			
TOTAL:	8136	8442	6249	6555	1887	-306			
OVERALL:	16981	17929	9018	9966	7963	-948			

		Water release	s, mcm	
Reservoir	Forecast schedule 2024	Forecast schedule 2023	Actual 2023	Deviation (forecast 2024 minus forecast 2023)
	Upp	er reservoir		
Toktogul	5771	5300	5349	471
Andijan	2303	2964	2190	-661
Charvak (discharge of the Gazalkent HPP)	3823	4003	4010	-180
TOTAL:	11897	12267	11549	-370
	In-stro	eam reservoir		
Bakhri Tojik	6156	6191	5423	-35
Shardara	6208	6869	3898	-661
TOTAL:	12364	13060	9321	-696
OVERALL:	24261	25327	20870	-1066

VI. Water releases from reservoirs (Table 2.3)

According to the forecast operation schedule of the Naryn-Syr Darya reservoir cascade, 24 261 mcm are planned to be released from the reservoirs in the growing season 2024.

VII. Water withdrawal limits (Table 2.4)

Based on requests of water user states, the following water withdrawal limits are proposed for the growing season.

The total volume of water withdrawal of water user states for the growing season is 11 897 mcm.

Requests

Republic of Kazakhstan (Dustlik canal)	922 mcm
Kyrgyz Republic	270 mcm
Republic of Tajikistan	1905 mcm
Republic of Uzbekistan	8800 mcm
Total:	11 897 mcm

Table 2.4

Water user state	By request, mcm
Republic of Kazakhstan (Dustlik canal)	922
Kyrgyz Republic	270
Republic of Tajikistan	1905
Republic of Uzbekistan	8800
Total:	11897

Based on the data from the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan, inflow to the Aral Sea and Aral Sea region is expected to be 997 mcm for the growing season. Taking into account the expected water availability, according to Uzhydromet forecast data, the accumulated water storage in the reservoir, the signed protocols and agreements on electricity supply between the ministries of energy and water management of the Republic of Uzbekistan and the ministries of energy, water resources and irrigation of the Republic of Kazakhstan with the ministry of energy of the Kyrgyz Republic, as well as planned trilateral and bilateral protocols between the Republic of Kazakhstan, Republic of Uzbekistan and Republic of Tajikistan on additional water releases from the Bakhri Tojik reservoir, the forecast operation schedule of the Naryn-Syr Darya reservoir cascade has been developed accordingly for the growing season 2024 (Table 2.5).

Forecast operation schedule of the Naryn-Syr Darya reservoir cascade (April 1- September 30, 2024)

Reservoir	Unit	April	May	June	July	August	September	Total, mcm
	·	Toktog	al reservoir					
Inflore to the measure in	m^3/s	373	540	1064	698	495	374	
Inflow to the reservoir	mcm	967	1446	2758	1870	1326	969	9336
Volume: beginning of the season	mcm	7277	7565	8079	9657	10215	10448	
end of the season	mcm	7565	8079	9657	10215	10448	10842	
W. 4	m ³ /s	262	348	455	490	408	222	
Water releases from the reservoir	mcm	679	932	1179	1312	1093	575	5771
Discharge from the Uchkurgan HPP (by	m ³ /s	300	330	480	470	390	190	
protocol as of April 11, 2024)	mcm	778	884	1244	1259	1045	492	5702
		Bakhri To	ojik reservo	ir	•			
Inflow to the reservoir	m ³ /s	394	397	316	300	300	268	
(Akdjar g/s)	mcm	1021	1064	820	805	804	694	5207
Volume: beginning of the season	mcm	3315	3466	3557	3011	2136	1586	
end of the season	mcm	3466	3557	3011	2136	1586	1698	
Water releases from the reservoir	m ³ /s	340	340	460	550	441	200	
	mcm	881	911	1191	1473	1181	518	6156
		Shardar	ra reservoir					
Inflow to the reservoir	m ³ /s	430	330	200	135	143	166	
	mcm	1116	884	518	362	382	430	3692

Reservoir	Unit	April	May	June	July	August	September	Total,
Volume: beginning of the season	mcm	4821	4957	4609	3442	2020	1042	
end of the season	mcm	4957	4609	3442	2020	1042	1031	
Water releases from the reservoir	m^3/s	300	400	550	500	450	150	
	mcm	778	1071	1426	1339	1205	389	6208
Water releases into Kyzylkum canal	m^3/s	60	40	60	106	38	10	
	mcm	156	107	156	284	102	26	830
Water supply to the Aral Sea	m ³ /s	130	70	30	30	40	80	
	mcm	337	187	78	80	107	207	997
		Charva	k reservoir				-	
Inflow to the reservoir	m ³ /s	232	410	508	370	208	123	
	mcm	602	1098	1316	992	558	319	4885
Volume: beginning of the season	mcm	611	896	1397	1901	1984	1858	
end of the season	mcm	896	1397	1901	1984	1858	1711	
Water releases from the reservoir	m^3/s	137	223	313	339	255	180	
(Water discharge from Gazalkent HPP)	mcm	354	597	812	909	684	467	3823
		Andija	n reservoir					
Inflow to the reservoir	m ³ /s	158	227	280	139	61	50	
	mcm	410	609	726	372	164	130	2411
Volume: beginning of the season	mcm	957	1102	1313	1572	1295	1049	
end of the season	mcm	1102	1313	1572	1295	1049	1062	
Water releases from the reservoir	m ³ /s	102	149	180	242	153	45	
	mcm	264	398	467	649	410	117	2303

Note: Inflow to the Shardara reservoir is expected to be 3190 mcm according to BWO Syr Darya calculation based on the Uzhydromet data

On the progress of fulfillment of the tasks put forward by the Heads of IFAS Founder States at the Summit³

General information

On August 24, 2018, a meeting of the Council of Heads of IFAS founderstates was held in Turkmenbashi city. The Heads of State put forward proposals and a number of initiatives aimed at improving the environmental, water management and socio-economic situation in the Aral Sea basin and a Joint Communiqué was adopted. ICWC members have regularly discussed the follow-up on the initiatives since the 77th ICWC regular meeting (November 5-6, 2019).

On September 15, 2023, the Dushanbe Declaration of the Heads of IFAS founder-states was adopted in Dushanbe, reflecting a wide range of issues related to regional cooperation in the water, ecological, energy and socioeconomic sectors, following the results of the regular meeting of the Council.

The outcomes on implementation of initiatives put forward by the Presidents at the meeting in Turkmenbashi since August 2018 and tasks for ICWC arising from the meeting in Dushanbe (September 2023) were reviewed at the 85th ICWC meeting (November 1-2, 2023, Tashkent).

The following statement was included in the decision of the meeting:

- 1. "Take into account the work of the ICWC on implementation of proposals and initiatives of the Heads of IFAS founder-states put forward at the Summit in Turkmenbashi city on August 24, 2018".
- 2. The members and executive bodies of ICWC shall submit proposals to SIC ICWC on the implementation of tasks arising from the IFAS Summits in Turkmenbashi (August 24, 2018) and Dushanbe (September 15, 2023) for summary by the next meeting".

At the request of SIC ICWC, proposals were received only from the ICWC member in Uzbekistan. On the basis of this document and materials from open sources, a consolidated report was prepared on the approaches of the countries and executive bodies to the fulfillment of the tasks arising from the Summits.

³ Information on the third item of the 86th ICWC meeting agenda

1. Institutional and legal improvement of IFAS, as well as strengthening its capacity and enhancing its image on the international arena

As of January 2024, the 2nd stage of work on identification of problems/gaps in performance of structural subdivisions of IFAS has been completed; the 3rd stage on determination of functions of existing and newly established organizations is in progress, including coordination of goals and objectives/tasks of IFAS; and the 4th stage, aimed at development and coordination of proposals on improvement of financial provisions of institutional management structure of IFAS, has been continued.

Planned activities of the parties:

The work on institutional and legal improvement of IFAS will be continued under the chairmanship of Kazakhstan in the period from 2024 to 2026. The representatives of SIC ICWC, BWO Syr Darya and BWO Amu Darya continue to work in the Working Group, in addition to the authorized representatives of the countries.

In Uzbekistan, the Action Plan ('Road Map') on implementation of initiatives put forward by the President of the Republic of Uzbekistan at the meeting of Heads of State (September 15, 2023, Dushanbe) was developed and approved by the Cabinet of Ministers of the Republic of Uzbekistan (No.04/1-2259 of 18.10.2023). The Ministry of Water Management of the Republic of Uzbekistan and other authorized ministries and agencies are actively working on the implementation of the Road Map. In particular, a Working Group of representatives of relevant ministries and agencies has been formed, work is in progress to analyze and agree on the institutional framework of IFAS, inventory and revision of its constituent documents and agreements, preparation of proposals on coordination of working bodies and increasing the efficiency of activities by expanding the powers of the Fund.

2. Development and implementation of joint projects and programs as part of the Aral Sea Basin Program (ASBP-4), 2020-2030.

According to the EC IFAS final report, by the end of 2023, thirty-five projects totaling \$175 million and \notin 54 135 million are implemented by international development partners in the Central Asian countries in support of ASBP-4. More than \$16.25 million and \notin 28.97 million worth efforts were completed under the ongoing projects. The IFAS member states are implementing national projects with a total budget of more than \$700 million, of which about \$190 million have been implemented in Kazakhstan, \$52.76 million in Tajikistan, \$4.7 million in Turkmenistan and \$195.5 million in

Uzbekistan.

From the report: The efforts made by the countries of the region and development partners in areas such as water, climate, energy, agriculture, environmental protection, etc., which are included as separate goals and tasks in ASBP-4, are many times greater than the data collected by the IFAS Executive Committee.

The lack of comprehensive data, both due to indirect relevance to the ASBP-4 projects and the lack of monitoring and reporting mechanisms, makes it impossible to prepare a full review and analysis that could reflect the real picture, identify progress, gaps and omissions in order to further improve work in this direction'.

Planned activities of the parties:

The work for 2024-2026 will be continued under the chairmanship of IFAS in Kazakhstan. It seems useful to consider the possibility of adopting a monitoring and accountability mechanism for better coordination of implementation of ASBP-4 projects and programs by countries, regional organizations and international partners.

As a contribution to ASBP-4 implementation, SIC ICWC plans to implement as part of the "Regional mechanisms for low-carbon, climate resilient transformations of the energy-water-land Nexus in Central Asia'/ IKI project the following: (1) conduct a survey of the technical condition of gauging stations in the Syr Darya River basin, selected by the countries including pre-project assessment of the need for their automation; (2) improve the regional information system (Project 1.6., ASPB-4); (2) improve accounting and monitoring system of water resources in the Amu Darya and Syr Darya River basins, including the use of MODSNOW tool for forecasting water availability of the rivers (Project 1.7., ASBP-4); (3) revisit the boundaries of hydromodule zoning, taking into account the current climate, soil, hydrogeological conditions and based on updated data – hydromodule zoning (Project 1.11., ASBP-4). In addition, it is planned to continue working on the development of a system of the Aral Sea (Project 2.7, ASPB-4)⁴.

⁴ Project "Adaptation of a modern system for water and land resources monitoring and water balance (water requirement) modeling in the conditions of the Aral Sea region with a view of combating salinization and increasing land productivity" (May 2022 - May 2025) as part of Uzbek-Japan Joint International Research Development Program "SATREPS.

3. Measures for comprehensive solution of consequences of the Aral Sea catastrophe

In Kazakhstan, the issues of socio-economic development of the Aral Sea region and improvement of living conditions of the population are addressed as part of ongoing projects: "Jasil Kazakhstan" (Green Kazakhstan), 2021-2025 (approved by PP RK No.731 of October 12, 2021); and, "Ecologically oriented regional development of the Aral Sea region" (ECO ARAL). Over the last three years, 544.5 thousand ha of saxaul have been planted on the Kazakh side of the dried bed of the Aral Sea. In 2024, saxaul is planted on an area of 275 thousand ha (almost equal to the area as four Astana and two Shymkent cities). The President has set a task to plant saxaul seedlings on the area of 1.1 million ha. During the years of Kazakhstan's chairmanship in IFAS, it is planned to implement the project "Regional development and restoration of the northern part of the Aral Sea in Kazakhstan" (WB and the Government of Kazakhstan, the project will cover the Kazakhstani part of the Aral Sea region and the territory of Kyzylorda region), the final goal of which is to fill Saryshyganak Bay so that the sea reaches Aralsk.

Turkmenistan actively promotes the Aral Sea problem and the development of Special UN Program for the Aral Sea Basin (UN SPAS). On May 19, 2023 as part of 79th session of ESCAP, the Resolution E/ESCAP/RES/79/8 "Consideration of the modalities for the establishment of the United Nations special programme for the Aral Sea basin" was adopted (May 15-19, 2023, Bangkok, Thailand). Currently, the advisability and possible modalities for the establishment of the Special Programme are under examination. The National Programme of Turkmenistan on the Aral Sea for 2021-2025 and the project "Conservation and sustainable management of land resources and high value ecosystems in the Aral Sea Basin for multiple benefits" (UNDP/GEF) continue to be implemented in the country.

The UN Multi-partner Trust Fund on Human Security for the Aral Sea Region in Uzbekistan, the International Innovation Centre for the Aral Sea Region under the President of the Republic of Uzbekistan, and the Central Asian University of Environmental and Climate Change Studies /Green University continue their activities in Uzbekistan. A socio-economic development program is implemented for the Republic of Karakalpakstan (PKM No.37 of 16.01. 2019 and No.155 of 5.04.2022, PP RUz No. 4889 of 12.11.2020). The efforts to adopt water-saving irrigation technologies in the Aral Sea region are underway (PP RUz No. 4912 of 5.12.2020). In 2018-2023, 1,730 thousand ha were afforested on the bottom of the Aral Sea (Uzbek territory) resulting in the greening of 17 thousand km². In 2024, afforestation on the total area of 150-200 thousand ha has been started.

SIC ICWC will continue its work on: (1) assessment of inflow along the

Amu Darya River and collectors; (2) assessment of water surface, wetlands and dried area of the Large and Small /North Aral Sea, water bodies of the Aral Sea region by using satellite images; (3) implementation of the project "Adaptation of a modern system for water and land resources monitoring and water balance (water requirement) modeling in the conditions of the Aral Sea region with a view of combating salinization and increasing land productivity" aimed at improving water resources management in ASB.

4. Automation of gauging stations and adoption of advanced information and communication technologies

Kazakhstan continues implementing the 2021-2025 Plan for automation of irrigation network, which provides for⁵ automation and digitalization of 212 main and inter-farm canals with a total water intake of 7.7 km³ over the irrigated area of 497 thousand ha in Almaty, Zhambyl, Turkestan and Kyzylorda provinces.

In February 2024, transboundary gauging stations named "Patar" and "Sarvak" were installed⁶ on the border between Uzbekistan and Tajikistan along the Northern and Big Fergana Canals to control transboundary flow. These gauging stations will allow more accurate measurement of irrigation water diversion. Joint rehabilitation and operation of gauging stations, maintenance of equipment, and exchange and use of data will be carried out.

In March 2024, Kazakhstan and Uzbekistan agreed to install meters for accurate online measurement of water use by the both countries. Currently, discussions on the part of country experts are underway to determine the locations for these water meters and negotiations are conducted with international organizations on their participation in the project. In April, Kazakhstan is planning to start negotiations with other neighboring countries on the implementation of similar projects.

Turkmenistan continues efforts to save water resources and create additional water reserves as part of the "Presidential Program of socio-economic development for 2019-2025".

SIC ICWC will continue working⁷ with the countries to study technical condition (including normative and methodological documents necessary for the feasibility study of automation) of the gauging stations. At present, the countries (Kazakhstan and Uzbekistan) have defined the list of gauging statins to be

⁵ https://primeminister.kz/ru/news/v-kazahstane-do-2030-ploshchad-oroshaemyh-zemel-budet-dovedena-do-3-mln-ga-s-brekeshev-5996

⁶ The project was implemented with the support of the Blue Peace Central Asia initiative of the Swiss Government

⁷ As part of the project "Regional mechanisms for the low-carbon, climate-resilient transformation of the energywater-land nexus in Central Asia"

surveyed. It is planned to develop work jointly with (1) BWO Amu Darya on "Control measurements at key gauging stations and canals in the middle reaches of the Amu Darya River; (2) BWO Syr Darya on the improvement of the methodology for river flow forecasting.

5. Development of a comprehensive and mutually beneficial mechanism for water and energy co-operation in Central Asia

Kazakhstan has included the elaboration of the mechanism of waterenergy cooperation in Central Asia for the rational use of water-energy resources of the Aral Sea region in the Concept for the development of water management system of the Republic of Kazakhstan (2023-2029).⁸

Together with the countries of the region, SIC ICWC will continue discussing approaches⁹ to improve the institutional and financial mechanisms of water and energy cooperation in Central Asia, with the possible introduction of new elements, linkages and mechanisms of coordination and service delivery, as well as will develop modelling tools to assess the benefits of regional cooperation in water, energy and land use.

6. Regional cooperation and water diplomacy

In Kazakhstan, according to the Concept for the development of water resources management system of the Republic of Kazakhstan (2023-2029), development of transboundary cooperation is one of the key aspects of the state policy in the area of water relations, with the target indicator – improved water diplomacy and water legislation. Kazakhstan has ratified the Convention on the Law of the Non-navigational Uses of International Watercourses (UN Watercourses Convention) (Law of RK No. 67-VIII of March 25, 2024).

Tajikistan is leading the 'Dushanbe Water Process' and actively promotes water on the global agenda.

Water diplomacy is one of the priority areas of Turkmenistan's foreign policy and is promoted at various international platforms.

Uzbekistan acceded to the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, signed in London on June 17, 1999 (PP RUz No. 362 of 09.11.2023 "On accession to an international treaty"). The UNGA approved (December 19, 2023) the resolution 'Central Asia Facing Environmental Challenges: Fostering Regional Solidarity for Sustainable Development and

⁸ Approved by the PP RK No. 66 of February 5, 2024

⁹ As part of the project "Regional Mechanisms for Transformation"

Prosperity', proposed by Uzbekistan and co-authored by a number of countries, which stresses the importance of strengthening regional cooperation to address environmental challenges in Central Asia, including the Aral Sea region, and to promote socio-economic development and climate change adaptation measures.

SIC ICWC will continue its work as a member of the World Water Council's Board of Governors, Vice-chair of the Implementation Committee under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) and the cooperation with UNECE, ICID, OECD, UNESCO, ADB, EECCA-NWO, SDC, EDB, GIZ and other partners, as well as in discussions on the establishment of the Working Group on Water Law as part of the Global Forum on Law, Justice and Development (GFLJD) under the WB.

7. Water conservation and measures for adaptation to climate change

The Central Asian countries have approved the Regional Strategy for Adaptation to Climate Change in Central Asia, which will be implemented to achieve 4 strategic objectives: (1) strengthening regional coordination on adaptation to climate change; (2) establishing mechanisms for development and implementation of adaptation projects/programs; (3) enhancing adaptive capacity through knowledge generation, knowledge sharing and scientific cooperation; (4) developing climate monitoring, information exchange and forecasting systems.

Priority areas of work of the Uzbek Ministry of Water Management were adopted by the Decree of the President of Uzbekistan (UP No.101 of 20.06.2023). One of priority areas is to increase the share of water-saving technologies in crop production, with wide adoption of best experiences from abroad and their promotion by the state. A Presidential decree was adopted to encourage water saving, increase the of water use efficiency, and scaling up the implementation of water-saving irrigation technologies (PP No. 5 of 05.01.2024). According to this Decree, loans are allocated to agricultural producers for a period of 5 years at the rate 14% per annum with a two-year grace period to implement water-saving irrigation technologies. Subsidies are also available for agricultural producers to cover a share of costs related to implementation of water-saving irrigation technologies in the same year as they are implemented.

SIC ICWC - in cooperation with BWO Amu Darya and BWO Syr Darya - will continue every ten days monitoring of the balance of all waters in the Amu

Darya and Syr Darya River basins¹⁰; together with partners¹¹ will assess territorial water security in the Aral Sea basin; will prepare educational and methodological material for a training course on water and climate.

8. Capacity-building and scientific cooperation

Tajikistan has developed "A Concept on the support of the higher education for training of specialists for the water sector in Tajikistan by 2030".

SIC ICWC and its partners plan to work on strengthening and possibly combining the activities of the ICWC Regional Training Center and the EECCA Expert Platform on Water Security, Sustainable Development and Future Studies in order to increase the capacity of practitioners, including the youth and women.

¹⁰ Policy briefs are published in the sections 'Water situation in the Amu Darya Basin', 'Water situation in the Syrdarya River basin' and in the weekly newsletter 'Water, Energy, Food, Climate, Ecosystems in Eastern Europe, Caucasus and Central Asia'

¹¹ As part of the project "Regional Mechanisms for Transformation"

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