Interstate Commission for Water Coordination of Central Asia	**BULLETIN № 5 (104)**	November 2024

CONTENT

Minutes of the 87th Meeting of the Interstate Commission for Water Coordination (ICWC) of the Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan and Republic of Uzbekistan

November 6, 2024 **Ashgabat**

Chairman:

Durdi M. Gendjiyev	Chairman of the State Committee for Water Resources, Turkmenistan

ICWC members:

Nurjan M. Nurjigitov	Minister of Water Resources and Irrigation, Republic of Kazakhstan
Jamshed Sh. Shoimzoda	First Deputy Minister of Energy and Water Resources, Republic of Tajikistan
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. Kholkhujaev	Head, BWO Syr Darya
Dinara R. Ziganshina	Director, Scientific-Information Center (SIC) of ICWC

Alisher M. Nazariy	Deputy Director, SIC ICWC
Nurbibi Kh. Khodjaeva	Chief Specialist, ICWC Secretariat

Invited:

Republic of Kazakhstan

Nurlan A. Nogaev	Ambassador of the Republic of Kazakhstan in Turkmenistan
Erjan T. Musraliev	Advisor, Embassy of the Republic of Kazakhstan in Turkmenistan
Daniyar E. Sharip	Deputy Director, International Cooperation Department of the Ministry of Water Resources and Irrigation
Aset A. Beristenov	Advisor to the Minister of Water Resources and Irrigation of the Republic of Kazakhstan

Executive Committee of International Fund for Saving the Aral Sea (EC IFAS)

Askhat T. Orazbay	Chairman, EC IFAS
Serik A. Bekmaganbetov	Deputy Chairman, EC IFAS

Republic of Tajikistan

Daler A. Abdurazokzoda	Head of Central Water and Energy Policy, Science and Technology Administration, Ministry of Energy and Water Resources

Turkmenistan

Yanov D. Paschiev	Head of Water Use Department, State Committee for Water Resources
Tirkesh E. Nurgildiev	Head of Water Use Division, Water Use Department, State Committee for Water Resources
Saparmirat K. Chariev	Chief expert, Digital Technology and Information Security Division, Water Use Department, State Committee for Water Resources

Republic of Uzbekistan

Otabek N. Khazratov	Head, Division for International Relations and the World Trade Organization, Ministry of Water Management
Razzak M. Ostonov	Head of the Amu Darya-Bukhara Pumping Canal Operation Administration, Ministry of Water Management
Uktam A. Nazarov	Ambassador of the Republic of Uzbekistan in Turkmenistan

Agenda

1) Results of the use of water withdrawal limits/quotas and the operation regimes of reservoirs in the Amu Darya and Syr Darya River basins during the growing season 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 non-growing season 2024-2025.
3) Progress on the tasks set at the summits of the Heads of IFAS Founder States.
4) Additional issues.
5) Agenda and venue of the regular 88th ICWC meeting.

Decision on the first item:

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

2. Taking into account the water level in the Bakhri Tojik reservoir from June 11 to August 31, 2024, the Tajik party fulfilled its obligations under the Protocol of the working meeting of the Tajik, Kazakh and Uzbek parties on harmonization of the operation schedule of the Bakhri Tojik reservoir for the period between June-August 2024. In this context, BWO Syr Darya shall make appropriate amendments to the submitted report on the results of the use of limits and operation regimes of reservoir cascades in the Syr Darya River basin during the growing season 2024.

Decision on the second item:

1. Approve water withdrawal limits in the Amu Darya and Syr Darya River basin for non-growing season 2024-2025 (Appendices 1-2).

2. Take into consideration the forecast operation regimes of reservoir cascades proposed by BWO Amu Darya and BWO Syr Darya for non-growing season 2024-2025 (Appendices 3-4).

Decision on the third item:

1. Acknowledge the work done by ICWC executive bodies in implementing the proposals and initiatives put forward by the Heads of IFAS Founder States at the Summits in Turkmenbashi (2018) and Dushanbe (2023).

2. ICWC members and executive bodies shall submit the updated information on fulfillment of the tasks set at the IFAS summits by the next meetings, with special emphasis put on strengthening regional cooperation mechanisms.

Decision on the fourth item:

1. Take into consideration the information provided by the Chairman of EC IFAS on progress on the EC IFAS activity, as well as on holding the 13th meeting (December 12-13, 2024) of the Working Group on Institutional and Legal Improvement of IFAS and the need to strengthen its activity .

Decision on the fifth item:

1. Hold the regular 88th ICWC meeting in Dushanbe, Tajikistan.
2. The date of the regular ICWC meeting shall be agreed in working order.

Propose the following agenda for the 88th ICWC meeting:

1) The use of water withdrawal limits and the operation regimes of reservoirs in the Amu Darya and Syr Darya River basins during the non-growing season 2024-2025.

2) Progress on the fulfillment of tasks set by the Heads of IFAS Founder States at the IFAS summits.

3) Additional issues.

4) Agenda and venue of the regular 89th meeting.

Republic of Kazakhstan	**N.M. Nurjigitov**
Kyrgyz Republic	
Republic of Tajikistan	**D.Sh. Shoimzoda**
Turkmenistan	**D.M. Gendjiev**
Republic of Uzbekistan	**Sh.R. Khamraev**

Appendix 1

Country limits/ quotas of water withdrawal from the Amu Darya River and water supply to the Aral Sea and the Delta, non-growing season 2024-2025

River basin, state	Water withdrawal limits, mcm	
	Total annual (1.10.24 to 1.10.25)	Incl. non-growing season (1.10.24 to 1.04.25)
Total water withdrawal from Amu Darya River	55 391	15 791
including:		
Republic of Tajikistan	9 821	2 941
From the Amu Darya River to the nominal Kerki gauging station	44 000	12 480
Turkmenistan	22 000	6 500
Republic of Uzbekistan	22 000	5 980
In addition:		
- water delivery to the river delta and the Aral Sea, including irrigation water releases and CDW	4 200	2 100
- delivery of sanitary and environmental flow to irrigation systems	800	800
Dashoguz province	150	150
Khorezm province	150	150
Republic of Karakalpakstan	500	500

Appendix 2

Limits/quotas of water withdrawal from the Syr Darya River, non-growing season 2024-2025

Water-user state	Requested, mcm
Republic of Kazakhstan (Dustlik canal)	488
Kyrgyz Republic	47
Republic of Tajikistan	365
Republic of Uzbekistan	3347
Total	**4247**

Appendix 3

Forecast operation schedule of the Nurek and Tuyamuyun reservoirs (October 2024 – March 2025)

Nurek reservoir	Unit	Forecast						Total
		October	November	December	January	February	March	
Volume: beginning of the season	mcm	10568	10494	10028	9117	8035	6970	10568
Inflow to the reservoir	m^3/s	357	250	230	200	190	180	
	mcm	955	648	616	536	460	482	3696
Water releases from the reservoir	m^3/s	374	413	547	574	600	465	
	mcm	1002	1071	1465	1538	1452	1244	7772
Volume: end of the season	mcm	10494	10028	9117	8035	6970	6151	6151
Accumulation (+), drawdown (-)	mcm	-74	-466	-911	-1083	-1064	-820	-4417

Tuyamuyun reservoir	Unit	Forecast						Total
		October	November	December	January	February	March	
Volume: beginning of the season	mcm	3999	4035	4366	4861	4982	4387	3999
Inflow to the reservoir	m^3/s	398	303	360	220	285	290	
	mcm	1067	785	963	590	689	778	4872
Water releases from the reservoir	m^3/s	385	175	175	175	534	851	
	mcm	1031	454	469	469	1291	2278	5991
Volume: end of the season	mcm	4035	4366	4861	4982	4387	2880	2880
Accumulation (+), drawdown (-)	mcm	36	331	494	121	-595	-1507	-1119

Appendix 4

Forecast operation regimes of the Naryn-Syr Darya reservoir cascade
(October 1, 2024 - March 31, 2025)

Reservoir		October	November	December	January	February	March	Total, mcm
Toktogul reservoir								
Inflow to the reservoir	m^3/s	250	212	179	162	163	175	
	mcm	669	549	478	434	395	468	2993
Volume: beginning of the season	mcm	13036	13102	12692	11467	9933	8656	
end of the season	mcm	13102	12692	11467	9933	8656	8033	
Water releases from the reservoir	m^3/s	225	370	636	735	691	407	
	mcm	603	959	1703	1969	1672	1090	7996
Bakhri Tojik reservoir								
Inflow to the reservoir	m^3/s	340	621	941	957	919	545	
(Akdjar gauging station)	mcm	910	1611	2521	2563	2223	1459	11286
Volume: beginning of the season	mcm	1716	2390	2936	3170	3383	3479	
end of the season	mcm	2390	2936	3170	3383	3479	3446	
Water releases from the reservoir	m^3/s	142	420	870	900	900	566	
	mcm	381	1089	2330	2411	2177	1516	9904
Shardara reservoir								
Inflow to the reservoir	m^3/s	210	507	910	945	950	670	
	mcm	562	1314	2437	2531	2298	1795	10938
Volume: beginning of the season	mcm	1121	1089	1190	2248	3416	4720	

Reservoir		October	November	December	January	February	March	Total, mcm
end of the season	mcm	1089	1190	2248	3416	4720	5175	
Water releases from the reservoir	m^3/s	200	450	500	500	400	400	
	mcm	536	1166	1339	1339	968	1071	6420
Water delivery to the Aral Sea	m^3/s	50	70	100	120	140	160	
	mcm	134	181	268	321	339	429	1672
Charvak reservoir								
Inflow to the reservoir	m^3/s	102	91	78	69	69	101	
	mcm	272	236	209	186	167	271	1340
Volume: beginning of the season	mcm	1805	1726	1556	1247	906	637	
end of the season	mcm	1726	1556	1247	906	637	534	
Water releases from the reservoir	m^3/s	139	157	193	197	180	140	
(Water discharge from Gazalkent HPP)	mcm	373	406	518	527	435	374	2633
Andijan reservoir								
Inflow to the reservoir	m^3/s	51	50	53	45	48	64	
	mcm	138	130	143	120	117	171	817
Volume: beginning of the season	mcm	987	955	961	1013	1023	1077	
end of the season	mcm	955	961	1013	1023	1077	1114	
Water releases from the reservoir	m^3/s	63	48	34	41	26	50	
	mcm	170	124	90	110	63	134	691

Results of the use of water withdrawal limits/quotas and the operation regimes of reservoirs in the Amu Darya and Syr Darya River basins during the growing season 2024[1]

Amu Darya River Basin

Actual water availability in the Amu Darya River basin at the nominal Kerki gauging station (upstream of Garagumdarya) estimated for the natural non-regulated flow of the Vakhsh River and taking into account regulation by the Nurek reservoir was 94.3 % of the norm in the growing season 2024. During the previous growing season, the actual water availability was estimated at 93.1 % of the norm.

During the growing season 2024, water availability was quite ambiguous:, it varied within 85-90 % of the norm in April, whereas since the second ten-day period of May, water availability increased to 125 % above the norm due to rains in the upper basin. This allowed reaching planned accumulation in reservoirs for downstream water users during the growing season.

The use of allocated water withdrawal limits/quotas by states was as follows over the reporting growing season.

Under the current water-management situation, 85.3% of the total approved water withdrawal limit was used for the whole basin, with the limit of 39 701.6 mcm, 33 829.1 mcm was actually used, including:

Republic of Tajikistan: actually used 6 326.3 mcm or 90.6 % of the total limit;

Turkmenistan: actually used 13 959.9 mcm or 90.1% of the total limit;

Republic of Uzbekistan: actually used 13 542.9 mcm or 78.6 % of the total limit;

[1] Information on the first item of the 87th ICWC meeting's agenda

Water-user state	Limits/quotas of water withdrawal, growing season 2024	Actual mcm	%% of use
Republic of Tajikistan	6981.6	6326.3	90.6
Turkmenistan	15500.0	13959.9	90.1
Republic of Uzbekistan	17220.0	13542.9	78.6
Total	39701.6	33829.1	85.2

In the growing season 2024, 84.8 % of the total allocated water limit/quota was used downstream of the nominal Kerki gauging station (upstream of Garagumdarya), including:

Republic of Uzbekistan: actually used 12 763.1 mcm or 79.7 % of the total limit/quota.

Turkmenistan: actually used 13 959.9 mcm or 90.1 % of the total limit/quota.

Water-user state	Limits/quotas of water withdrawal, growing season 2024	Actual, mcm	%% of use
Downstream of the nominal Kerki GS	31520.0	26723.0	84.8
Turkmenistan	15500.0	13959.9	90.1
Republic of Uzbekistan	16020.0	12763.1	79.7

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

Upper reaches – actually used 7106.1 mcm or 86.9 % of the total limit, including: Tajikistan – 6326.3 mcm; Uzbekistan –779.8 mcm.

Middle reaches – actually used 15 698.5 mcm or 96.9% of the total limit, including: Turkmenistan – 10 243.7 mcm or 97.8% of the total limit; Uzbekistan – 5454.9 mcm or 95.1% of the total limit.

Lower reaches – actually used 11 024.5 mcm or 72.0 % of the total limit, including: Turkmenistan – 3716.2 mcm or 73.9 % of the total limit; Uzbekistan – 7308.2 mcm or 71.1 % of the total limit.

Water-user state	Limits/quotas of water withdrawal, growing season 2024	Actual, mcm	%% of use
Upper reaches	**8181.6**	**7106.1**	**86.9**
Republic of Tajikistan	6981.6	6326.3	90.6
Republic of Uzbekistan		779.8	
Middle reaches	**16207.0**	**15698.5**	**96.9**
Turkmenistan	10472.0	10243.7	97.8
Republic of Uzbekistan	5735.0	5454.9	95.1
Lower reaches	**15313.0**	**11024.5**	**72.0**
Turkmenistan	5028.0	3716.2	73.9
Republic of Uzbekistan	10285.0	7308.2	71.1

It was planned to deliver 2100 mcm to the river delta and the Aral Sea during the growing season. However, the actual supply was 1238 mcm or 59.0 % of the plan.

Forecast operation regimes of the Nurek and Tuyamuyun reservoirs were drawn out based on average water availability. Basically, the forecast regime for the Nurek reservoir was true, and the full volume was reached in the reservoir in August. Given the seasonal water availability of 94.3% of the norm, the monthly water availability varied from 85 to 125%. Consequently, 123.0% of planned accumulation in the Tuyamuyun reservoir was reached.

Inflow to the Nurek reservoir was expected to be 15 032 mcm during the growing season; the actual inflow was 16 388 mcm or 109.0 % of the forecast. Water releases from the reservoir were planned in the volume of 10 998 mcm, and the actual water releases amounted to 12 634 mcm or 114.9 % of the plan.

The volume of water in the reservoir was planned to be 10 522 mcm by the end of the growing season 2024; the actual volume amounted to 10 568 mcm or 100.4 % of the plan.

Inflow to the Tuyamuyun reservoir was expected to be 14 447 mcm during the growing season, and the actual inflow was 15 861 mcm or 109.6 % of the forecast. Water releases from the reservoir were planned in the amount of

14 200 mcm, the actual water releases amounted to 14 834 mcm or 104.5% of the plan.

Volume of water in the reservoir was planned to be 3250 mcm by the end of the growing season 2024; the actual volume amounted to 3999 mcm or 123.0 % of the plan.

Item		Unit	Nurek reservoir	Tuyamuyun reservoir
Volume: beginning of the season		mcm	6023	2973
Inflow to the reservoir	forecast		15032	14477
	actual	mcm	16388	15861
		%%	109.0	109.6
Water releases from the reservoir	forecast	mcm	10998	14200
	actual	mcm	12634	14834
		%%	114.9	104.5
Volume: end of the season	forecast	mcm	10522	3250
	actual	mcm	10568	3999
		%%	100.4	123.0
Accumulation (+), drawdown (-)	forecast	mcm	4499	277
	actual	mcm	4545	1026
		%%	101.0	370.0

Analysis of the use of water withdrawal limits/quotas in the Amu Darya River basin during the growing season 2024

Item	Limits/quota of water withdrawal for the growing season, mcm	Actual mcm	%%
Upper Darya Division (UDD) (Upper reaches)	8181.6	7106.1	86.9
including:			
Tajikistan	6981.6	6326.3	90.6
Uzbekistan	1200.0	779.8	65.0
Water withdrawal from the Amu Darya River at nominal Kerki GS	31520.0	26723.0	84.8
including:			
Turkmenistan	15500.0	13959.9	90.1
Uzbekistan	16020.0	12763.1	79.7
Middle Darya Division (MDD) (Middle reaches)	16207.0	15698.5	96.9
including:			
Turkmenistan	10472.0	10243.7	97.8
Uzbekistan	5735.0	5454.9	95.1
UPRADIC and Lower Darya Division			
Lower reaches:	15313.0	11024.45	72.0
including:			
Turkmenistan	5028.0	3716.22	73.9
Uzbekistan	10285.0	7308.23	71.1
Total in the basin	39701.6	33829.1	85.2
including:			
Tajikistan	6981.6	6326.3	90.6
Turkmenistan	15500.0	13959.9	90.1
Uzbekistan	17220.0	13542.9	78.6

Actual operation regime of the Nurek and Tuyamuyun reservoirs (April – September 2024)

Nurek reservoir	Unit	Actual						Total
		April	May	June	July	August	September	
Volume: beginning of the season	mcm	6023	6281	7516	8557	9985	10571	6023
Inflow to the reservoir	m^3/s	438	950	1166	1383	1550	707	
	mcm	1134	2545	3021	3705	4151	1832	16388
Water releases from the reservoir	m^3/s	385	596	810	925	1354	708	
	mcm	999	1597	2099	2477	3628	1834	12634
Volume: end of the season	mcm	6281	7516	8557	9985	10571	10568	10568
Accumulation (+), drawdown (-)	mcm	258	1235	1041	1428	586	-3	4545

Tuyamuyun reservoir	Unit	Actual						Total
		April	May	June	July	August	September	
Volume: beginning of the season	mcm	2973	2563	3736	3851	3674	4484	2973
Inflow to the reservoir	m^3/s	234	1104	1158	1323	1442	729	
	mcm	607	2958	3003	3542	3862	1889	15861
Water releases from the reservoir	m^3/s	393	666	1114	1389	1140	915	
	mcm	1017	1785	2887	3720	3052	2373	14834
Volume: end of the season	mcm	2563	3736	3851	3674	4484	3999	3999
Accumulation (+), drawdown (-)	mcm	-410	1173	116	-178	810	-484	1026

Water supply to the Aral Sea and the Amu Darya River delta during the growing season, mcm

Item	April	May	June	July	August	September	Actual water supply from 01.04.24 to 30.09.24
From the Amu Darya at Samanbay GS	37	37	82	116	78	102	452
Total water discharge From the Dustlik and Suenli canal system					6	6	12
CDW	219	81	87	113	144	130	774
TOTAL:	256	118	169	229	228	238	1238
Cumulative	256	374	543	772	1000	1238	

Syr Darya River Basin

I. Forecast of inflow

For the growing season 2024, by UzHydromet's forecast, water availability was expected on average at 100% (95-105%) of the norm in the river basin of the south Ferghana Valley, 90% (85-95%) in the basins of the Naryn River and the rivers of the north Ferghana Valley, 85% (80-90%) in the Karadarya and Chirchik basins, and 80% (75-85%) in the Akhangaran River basin.

Information on expected operation regime of the Toktogul reservoir was provided by the Coordination Dispatching Center (CDC) "Energy" on March 25, 2024.

The forecast operation regime of the Charvak reservoir was received from the Ministry of Water Management of the Republic of Uzbekistan after consultation with the Ministry of Energy of the Republic of Uzbekistan, JSC "UzbekHydroenergy" and "UzHydromet".

The forecast operation regime of the Andijan reservoir ws received from the Ministry of Water Management of the Republic of Uzbekistan after consultation with JSC "UzbekHydroenergy" and "UzHydromet".

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

Based on the forecast data, inflow to the upper reservoirs was expected to be as follows:

- Toktogul reservoir– 95% of the norm
- Andijan reservoir – 82% of the
- Charvak reservoir – 85% of the norm

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

Overall, water availability was expected at the level of 89% of the norm in the Syr Darya River basin.

The forecast operation schedule of the Naryn-Syr Darya resevoir cascade for the growing season was taken into consideration at the 86rd ICWC meeting and country water withdrawal limits/quotas for the Syr Darya River basin were approved.

Actual water management situation for the growing season 2024 is characterized by the following:

II. Total inflow (Table 1)

The total inflow to the Syr Darya River basin for the growing season:

Norm is 29 494 mcm.

According to Uzhydromet forecast, the total inflow was expected to be 26 158 mcm or 89% of the norm.

In fact, the total inflow was 28 704 mcm, which is 2546 mcm higher or 110% of the forecast (97% of the norm).

III. Inflow to upper reservoirs (Table 1)

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

The inflow was forecasted to be 16 632 mcm.

The actual inflow to upper reservoir was 18 229 mcm, that is 1597 mcm higher or 110% of the forecast (98% of the norm).

Inflow by reservoir:

- Ito the Toktogul reservoir:

Norm – 9827 mcm

According to forecast, the inflow was expected to be 9336 mcm

Actual inflow – 10 693 mcm, which is 1357 mcm higher or 115% of the forecast (109% of the norm).

- to the Andijan reservoir:

Norm – 2927 mcm

According to forecast, the inflow was expected to be 2411 mcm

Actual inflow – 2465 mcm, which is 54 mcm higher or 102% of the forecast (84% of the norm).

- to the Charvak reservoir:

Norm – 5777 mcm

According to forecast – 4885 mcm

Actual inflow – 5071 mcm which is 186 mcm higher or 104% of the forecast (88% of the norm).

Table 1

Water body	Growing season, mcm April 1-September 30											
	2024						2023					
	norm	**forecast**	forecast/ norm (%)	**actual**	actual/ forecast (%)	actual/ norm (%)	**norm**	**forecast**	forecast/ norm (%)	**actual**	actual/ forecast (%)	actual/ norm (%)
Inflow to upper reservoirs												
Toktogul	**9827**	**9336**	95	**10693**	115	109	**9802**	**9806**	100	**9178**	94	94
Andijan	**2927**	**2411**	82	**2465**	102	84	**2927**	**3029**	104	**2072**	68	71
Charvak (total of 4 rivers)	**5777**	**4885**	85	**5071**	104	88	**5777**	**5003**	87	**4209**	84	73
Total:	**18531**	**16632**	**90**	**18229**	**110**	**98**	**18506**	**17838**	**96**	**15459**	**87**	**84**
Lateral inflow												
Toktogul – Uchkurgan	**1216**	**1155**	95	**1219**	105	100	**1216**	**1216**	100	**782**	64	64
Andijan – Uchtepe	**2511**	**2053**	82	**2014**	98	80	**2511**	**2369**	94	**1454**	61	58
Uchkurgan, Uchtepe - Bakhri Tojik	**3349**	**2685**	80	**3390**	126	101	**3349**	**2843**	85	**2129**	75	64
Bakhri Tojik – Shardara	**2985**	**2843**	95	**3087**	109	103	**2985**	**3001**	101	**2140**	71	72
Gazalkent- Chinaz (excluding Ugam)	**902**	**790**	88	**765**	97	85	**902**	**948**	105	**785**	83	87
Total:	**10963**	**9526**	**87**	**10475**	110	96	**10963**	**10377**	**95**	**7290**	70	66
Grand total inflow	**29494**	**26158**	**89**	**28704**	**110**	**97**	**29469**	**28215**	**96**	**22749**	**81**	**77**

Table 2

Item	Growing season, mcm April 1 – September 30							
	2024				2023			
	schedule	actual	actual/ schedule (%)	Difference (actual - schedule)	schedule	actual	actual/schedule (%)	Difference (actual - schedule)
Inflow to in-stream reservoirs								
Inflow to the Bakhri Tojik reservoir	5207	6328	122	1121	5218	4564	87	-654
Inflow to the Shardara reservoir (Chinaz-Syr Darya +Bozsu GS +Keles GS)	3692	5197	141	1505	4221	2522	60	-1699
Inflow to the Shardara reservoir (Kokbulak+Keles GS)	3692	4790	130	1098	4221	2407	57	-1814
Water supply to the Aral Sea								
Water supply to the Aral Sea	997	974	98	-23	996	340	34	-656

IV. Lateral inflow (Table 1)

Lateral inflow in the Syr Darya River basin up to Shardara reservoir during the growing season:

Norm – 10 963 mcm

According to Uzhydromet's forecast, the lateral inflow was expected to be 9526 mcm or 87% of the norm.

The actual lateral inflow was 10 475 mcm, which is 949 mcm higher or 110% of the forecast (96% of the norm).

V. Inflow to in-stream reservoirs and water supply to the Aral Sea (Table 2)

According to the forecast schedule, inflow to the Bakhri Tojik reservoir was planned to be 5207 mcm in the growing season 2024.

The actual inflow to the reservoir was 6328 mcm, which is 1121 mcm or 122% higher than the forecast schedule.

According to the forecast schedule, inflow to the Shardara reservoir was planned in the volume of 3692 mcm.

In fact, 5197 mcm flowed into the reservoir according to UzHydromet's data (Chinaz-SyrDarya+Bozsu+Keles gauging stations); this is by 1505 mcm or 141% higher than in the forecast schedule.

According to RSE "KazHydromet" (Kokbulak+Keles gauging stations), 4790 mcm flowed into the reservoir; this is 1098 mcm or 130% higher than the forecast schedule.

Inflow to the Aral Sea and the Aral Sea region was expected to be 997 mcm according to the forecast schedule of the Ministry of Water Resources and Irrigation of Kazakhstan, and the actual inflow as recorded at Karateren gauging station was 974 mcm or 98% of the forecast schedule.

Table 3

Reservoir	Water releases, mcm April 1 – September 30							
	2024				2023			
	Operation schedule NSRC	Actual	Difference (actual "-" schedule)	Actual/ schedule %	Operation schedule NSRC	Actual	Difference (actual "-" schedule)	Actual/ schedule %
Upper reservoirs								
Toktogul	5771	4990	-781	86	5300	5349	49	101
Andijan	2303	2376	73	103	2964	2190	-774	74
Charvak (discharge from Gazalkent HPP)	3823	4832	1009	126	4003	4010	7	100
Total:	**11897**	**12198**	**301**	**103**	**12267**	**11549**	**-718**	**94**
In-stream reservoirs								
Bakhri Tojik	6156	6421	265	104	6191	5423	-768	88
Shardara	6208	5267	-941	85	6869	3898	-2971	57
Total:	**12364**	**11688**	**-676**	95	**13060**	**9321**	**-3739**	71
Grand total:	**24261**	**23886**	**-375**	**98**	**25327**	**20870**	**-4457**	**82**

Table 4

Reservoir	Water volume in reservoir, mcm					
	Actual as of April 1, 2024	Scheduled as of October 1, 2024	Actual as of October 1, 2024	**Difference** (actual "- " schedule)	Actual as of October 1, 2023	**Difference** (actual as of October 1, 2024 " - " actual as of October 1, 2023
Upper reservoirs						
Toktogul	**7277**	**10842**	13036	2194	11748	1288
Andijan	**957**	**1062**	987	-75	775	212
Charvak	**611**	**1711**	1805	94	1531	274
Total:	**8845**	**13615**	15828	2213	**14054**	1774
In-stream reservoirs						
Bakhri Tojik	**3315**	**1698**	1716	18	1694	22
Shardara	**4821**	**1031**	1121	90	1008	113
Total:	**8136**	**2729**	2837	108	**2702**	135
Grand total:	**16981**	**16344**	18665	2321	**16756**	1909

VI. Water releases from reservoirs (Table 3)

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

The actual water releases were 23 886 mcm, which is 375 mcm or 98% lower than the forecast schedule.

Water releases from individual reservoirs were as follows:

- 5771 mcm were scheduled to be released from the Toktogul reservoir; the actual water releases were 4990 mcm, which was 781 mcm (or 86%) lower than the forecast schedule.
- 2303 mcm were scheduled to be released from the Andijan reservoir; the actual water releases were 2376 mcm, which was 73 mcm (or 103%) higher than the forecast schedule.
- 3823 mcm were scheduled to be released from the Charvak reservoir; the actual water releases were 4832 mcm, which was 1009 mcm (or 126%) higher than the forecast schedule.
- 6156 mcm were scheduled to be released from the Bakhri Tojik reservoir; the actual water releases were 6421 mcm, which was 265 mcm (or 104%) higher than the forecast schedule.
- 6208 mcm were scheduled to be released from the Shardara reservoir; the actual water releases were 5267 mcm, which was 941 mcm (or 85%) lower than the forecast schedule.

VII. Water storage in reservoirs (Table 4)

By the beginning of the growing season (April 1), the actual water storage in the Naryn-Syr Darya reservoir cascade was 16 981 mcm.

The water storage (as of October 1, 2024) was expected to be 16 344 mcm according to the forecast schedule. In fact, 18 665 mcm of water were accumulated, this is 2321 mcm higher than the forecast schedule.

Water storage was 8845 mcm in the upper reservoirs by the beginning of the growing season (April 1).

By 1 October 2024, according to the forecast schedule, the water volume in upper reservoirs was to be 13 615 mcm, while the actual storage was 15 828 mcm, which is 2213 mcm more than the forecast schedule.

Water accumulation in the upper reservoirs:

Toktogul reservoir – 13 036 mcm, which is 2194 mcm more than the forecast schedule (10 842 mcm);

Andijan reservoir – 987 mcm, which is 75 mcm less than the forecast schedule (1062 mcm);

Charvak reservoir 1805 mcm, which is 94 mcm more than the forecast schedule (1711 mcm).

Water storage was 8136 mcm in in-stream reservoirs by the beginning of the growing season (as of April 1).

According to the forecast schedule, the water volume in in-stream reservoirs was to be 2729 mcm by October 1, 2024, while the actual volume was 2837 mcm, which is 108 mcm more than the forecast schedule.

Water volume in in-stream reservoirs:

Bakhri Tojik reservoir – 1716 mcm, which is 18 mcm more than the forecast schedule (1698 mcm).

Shardara reservoir – 1121 mcm, which is 90 mcm more than the forecast schedule (1031 mcm).

VIII. Water supply to countries (Table 5)

According to the approved water withdrawal limits and submitted requests from water users, water was delivered to user countries during the growing season 2024 in the following amounts:

Republic of Kazakhstan – 728 mcm at the limit of 922 mcm,

Kyrgyz Republic – 244 mcm at the limit of 270 mcm,

Republic of Tajikistan – 1312 mcm at the limit of 1905 mcm,

Republic of Uzbekistan – 7566 mcm at the limit of 8800 mcm,

The actual total water withdrawal by water user countries amounted to 9850 mcm given the water withdrawal limit of 11 897 mcm.

Table 5

Water-user country	Water withdrawal, mcm April 1 – September 30, 2024	
	limit	actual
Republic of Kazakhstan (Dustlik canal)	922	728
Kyrgyz Republic	270	244
Republic of Tajikistan	1905	1312
Republic of Uzbekistan	8800	7566
Total	**11897**	**9850**

IX. Implementation of the Protocol decision on mutual electricity supplies and additional water releases through Uchkurgan HPP since April 1 till September 30, 2024 (Table 6)

Given the expected water availability in the Syr Darya basin for the growing season 2024 and to prevent the Toktogul reservoir from being emptied to a critical level, to ensure inflow to the Bakhri Tojik reservoir, and to improve water availability in the upper and middle reaches of the Syr Darya River, a protocol was signed on water and energy cooperation and a schedule of water discharge from Uchkurgan HPP from April to September 2024 was agreed among the Kyrgyz Republic, Kazakhstan and Uzbekistan on April 11, 2024.

To oversee the implementation and facilitate necessary adjustments, a meeting of water management and energy ministers from Kyrgyzstan, Kazakhstan, and Uzbekistan was held in Cholpon-Ata, Kazakhstan, on June 29, 2024. During the meeting, a protocol was signed, and the schedule for water discharge from the Uchkurgan HPP for the period of July to September was agreed upon.

By CDC “Energy” data, the discharge from Uchkurgan HPP was 5169 mcm (5702 mcm by the Protocol).

X. Implementation of the trilateral Protocol on operation regime of the Bakhri Tojik reservoir for June 11-August 31, 2024 (Table 7)

Taking into account the water forecast for the Syr Darya River basin, the Uzbek, Kazakh and Tajik parties signed a trilateral protocol on additional water releases from the Bakhri Tojik reservoir on June 6, 2024.

Inflow to the Bakhri Tojik reservoir was set at 2125 mcm from June 11 to August 31 by the Protocol, while the actual inflow was 2698 mcm, which is 573 mcm more than in the Protocol.

Water releases from the Bakhri Tojik reservoir were set at 3371 mcm from June 11 to August 31, while actual water releases were 3700 mcm, which is 329 mcm more than in the Protocol.

Given the water level in the reservoir, the Republic of Tajikistan fully fulfilled its obligations under the Protocol, which outlined the operational schedule of the Bakhri Tojik reservoir for June through August 2024. As a result, the water requirements in the middle reaches of the Syr Darya River were effectively met during the peak of the growing season.

Table 8 shows the forecast operation schedule for the Naryn-Syr Darya reservoir cascade for the growing season 2024 (ICWC-86), while Table 9 shows the actual operation regime of the Naryn-Syr Darya reservoir cascade during the growing season 2024.

Table 6

Analysis of water discharge from Uchkurgan HPP from April 1 to September 30, 2024
(according to Protocols of April 11 and June 29, 2024)

Unit	April		May		June		July		August		September		Total for the period	
	protocol	actual	protocol	actual	protocol	actual	protocol	actual	protocol	actual	protocol	actual	protocol	actual
m^3/s	300	276	330	277	480	429	470	453	390	339	190	184		
mcm	778	715	884	743	1244	1111	1259	1214	1045	908	492	477	5702	5169

Table 7

Operation regime of the Bakhri Tojik reservoir from June 11 to August 31, 2024

Item	Unit	June						July								August								Total mcm	
		II		III		average (*June 11- 30*)		I		II		III		Av.monthly		I		II		III		Av.monthly			
		Protocol	Actual	Protocol	Actual	Protocol	Actual	Protocol	Actual	Protocol	Actual	Protocol	Actual	Protocol	Actual	Protocol	Actual	Protocol	Actual	Protocol	Actual	Protocol	Actual	Protocol	Actual
inflow	m^3/s	300	370	300	439	300	405	300	481	300	418	300	367	300	420	300	344	300	334	300	304	300	327		
	mcm	259	320	259	379	518	699	259	415	259	361	285	348	804	1125	259	297	259	288	285	289	804	875	2125	2698
Water releases	m^3/s	390	451	450	563	420	507	540	638	540	564	540	609	540	604	510	556	460	480	380	330	448	451		
	mcm	337	389	389	486	726	876	467	551	467	487	513	578	1446	1617	441	480	397	415	361	313	1199	1208	3371	3700

Table 8

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
Toktogul reservoir								
Inflow to the reservoir	m^3/s	373	540	1064	698	495	374	
	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	
Water releases from the reservoir	m^3/s	262	348	455	490	408	222	
	mcm	679	932	1179	1312	1093	575	5771
Discharge from the Uchkurgan HPP (by Protocol of April 11, 2024)	m^3/s	300	330	480	470	390	190	
	mcm	778	884	1244	1259	1045	492	5702
Bakhri Tojik reservoir								
Inflow to the reservoir	m^3/s	394	397	316	300	300	268	
(Akjar 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	
	mcm	1116	884	518	362	382	430	3692

Reservoir	Unit	April	May	June	July	August	September	Total mcm
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 to the 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
Charvak 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	
(Discharge from Gazalkent HPP)	mcm	354	597	812	909	684	467	3823
Andijan 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

Table 9

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

Reservoir	Unit	April actual	May actual	June actual	July actual	August actual	September actual	Total mcm
Toktogul reservoir								
Inflow to the reservoir	m^3/s	390	1001	839	797	647	369	
	mcm	1010	2682	2173	2136	1733	957	10693
Volume: beginning of the season	mcm	7277	7728	9916	11026	11905	12622	
end of the season	mcm	7728	9916	11026	11905	12622	13036	
Water releases from the reservoir	m^3/s	218	190	418	476	380	208	
	mcm	565	509	1083	1274	1019	540	4990
Discharge from Uchkurgan HPP (actual/protocol of April 11, 2024)	m^3/s	276	277	429	453	339	184	
	mcm	715	743	1111	1214	908	477	5169
Bakhri Tojik								
Inflow to the reservoir	m^3/s	450	510	393	420	327	301	
(Akjar g/s)	mcm	1165	1366	1018	1125	875	779	6328
Volume: beginning of the season	mcm	3315	3463	3502	3064	2166	1512	
end of the season	mcm	3463	3502	3064	2166	1512	1716	
Water releases from the reservoir	m^3/s	369	402	445	604	451	159	
	mcm	956	1077	1152	1617	1208	411	6421
Shardara reservoir								
Inflow to the reservoir	m^3/s	435	602	379	197	153	207	
	mcm	1129	1612	981	527	410	538	5197
Volume: beginning of the season	mcm	4821	4633	4951	3817	1904	1055	

Reservoir	Unit	April actual	May actual	June actual	July actual	August actual	September actual	Total mcm
end of the season	mcm	4633	4951	3817	1904	1055	1121	
Water releases from the reservoir	m^3/s	246	243	519	628	274	84	
	mcm	638	650	1345	1681	735	218	5267
Water releases to the Kyzylkum Canal	m^3/s	97	52	57	106	40	7	
	mcm	251	140	149	285	108	18	951
Water supply to the Aral Sea	m^3/s	61	16	27	83	104	78	
	mcm	158	44	69	222	277	203	974
Charvak reservoir								
Inflow to the reservoir	m^3/s	271	493	510	319	201	128	
	mcm	704	1321	1323	853	539	331	5071
Volume: beginning of the season	mcm	611	1054	1574	1982	1996	1865	
end of the season	mcm	1054	1574	1982	1996	1865	1805	
Water releases from the reservoir	m^3/s	174	409	467	372	262	145	
(Discharge from Gazalkent HPP)	mcm	450	1095	1212	998	702	376	4832
Andijan reservoir								
Inflow to the reservoir	m^3/s	183	315	206	136	50	45	
	mcm	474	844	533	364	133	117	2465
Volume: beginning of the season	mcm	957	1179	1403	1471	1285	984	
end of the season	mcm	1179	1403	1471	1285	984	987	
Water releases from the reservoir	m^3/s	97	213	179	202	162	44	
	mcm	252	570	464	541	434	114	2376

*According to “Kazhydromet” (Kokbulak g/s+Keles g/s), the inflow to the Shardara reservoir was 4790 mcm.

Approval of country water withdrawal limits/quotas and forecast operation regime of the reservoir cascades in the Syr Darya and Amu Darya River Basins for the non-growing season 2024-2025[2]

Amu Darya River basin

Quotas/limits of water withdrawal from Amu Darya River and water supply to the river delta and the Aral Sea during the non-growing season 2024-2025

River basin, state	Water withdrawal limits/quotas , mcm	
	Total annual (from 1.10.24 to 1.10 .25)	Incl, non-growing season (from1.10.24 to 1.04.25)
Total from the Amu Darya River basin	55 391	15 791
of which:		
Republic of Tajikistan	9 821	2 941
From the Amu Darya River to the nominal Kerki gauging station	44 000	12 480
Turkmenistan	22 000	6 500
Republic of Uzbekistan	22 000	5 980
In addition:		
-water supply to the river delta and the Aral Sea, including irrigation water releases and CDW	4 200	2 100
- sanitary and environmental flow to irrigation systems:	800	800
Dashoguz province	150	150
Khorez province	150	150
Republic of Karakalpakstan	500	500

[2] Information on the second item of the 87th ICWC meeting's agenda

Forecast operation regime of Nurek and Tuyamuyun reservoirs (October 2024- March 2025)

Nurek reservoir	Unit	Forecast						Total
		October	November	December	January	February	March	
Volume: beginning of the season	mcm	10568	10494	10028	9117	8035	6970	10568
Inflow to the reservoir	m^3/s	357	250	230	200	190	180	
	mcm	955	648	616	536	460	482	3696
Water releases from the reservoir	m^3/s	374	413	547	574	600	465	
	mcm	1002	1071	1465	1538	1452	1244	7772
Volume: end of the season	mcm	10494	10028	9117	8035	6970	6151	6151
Accumulation (+), drawdown (-)	mcm	-74	-466	-911	-1083	-1064	-820	-4417

Tuyamuyun reservoir	Unit	Forecast						Total
		October	November	December	January	February	March	
Volume: beginning of the season	mcm	3999	4035	4366	4861	4982	4387	3999
Inflow to the reservoir	m^3/s	398	303	360	220	285	290	
	mcm	1067	785	963	590	689	778	4872
Water releases from the reservoir	m^3/s	385	175	175	175	534	851	
	mcm	1031	454	469	469	1291	2278	5991
Volume: end of the season	mcm	4035	4366	4861	4982	4387	2880	2880
Accumulation (+), drawdown (-)	mcm	36	331	494	121	-595	-1507	-1119

Syr Darya River basin

I. Forecast of inflow

On September 27, 2024, the Uzhydromet provided the forecast for non-growing season 2024-2025.

On October 10, 2024, the Coordination Dispatch Center (CDC) “Energy” provided the ancicipated operation regime of the Toktogul reservoir.

The forecast operation regime of the Charvak reservor was received from State Unitary Enterprices (SUE) “National Dispatch Center” of the Uzbek Ministry of Energy, agreed with the Ministry of Water Management and Joint Stock Company “Uzbekhydroenergy”.

The operational forecast regime of the Andijan reservoir was provided by JSC “Uzbekhydroenergy” and approved by the Ministry of Water Management of the Republic of Uzbekistan.

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

According to the forecast data, inflows to the upper reservoirs are expected to be as follows:

- Toktogul reservoir – 102% of the norm
- Andijan reservoir – 88%;
- Charvak reservoir – 94%.

Total lateral inflow is expected to be 92% of the norm.

In general, water availability in Syr Darya River basin is expected at 94% of the norm.

II. Total inflow (Table 1)

The total standard inflow in the Syr Darya River basin is 16 413 mcm for the non-growing season.

According to the forecast, the total inflow is expected to be 15 415 mcm (94% of the norm).

For the non-growing season 2023-2024, the forecast of total inflow was 14 483 mcm, while the actual inflow was 15 130 mcm (which is by 647 mcm more or 104% of the forecast).

III. **Inflow to upper reservoirs** (Table 1)

The standard inflow to upper reservoirs of the Naryn–Syr Darya reservoir cascade is 5283 mcm for the non-growing season.

According to the forecast, the inflow is expected to be 5150 mcm (97% of the norm).

Inflow to the Toktogul reservoir is 2932 mcm of the norm, by forecast it is expected to be 2993 mcm (102% of the norm).

Inflow to the Andijan reservoir is 929 mcm under the norm, by forecast it is expected to be 817 mcm (88% of the norm).

Inflow to the Charvak reservoir is 1422 mcm under the norm, by forecast it is to be 1340 mcm (94% of the norm).

IV. **Lateral inflow** (Table 1)

Lateral inflow is 11 130 mcm under the norm and is expected to be 10 265 mcm (92% of the norm) by forecast.

V. **Water storage in the reservoirs** (Table 2)

As of October 1, 2024, the total volume of water in the reservoirs is 18 665 mcm (including the dead storage of 7963 mcm). Usable water storage in reservoirs, excluding dead storage, is 10702 mcm.

As of October 1, 2023, the total volume of water in the reservoir was 16 756 mcm (including the dead storage of 7963 mcm). Usable water storage in reservoirs, excluding dead storage, was 8793 mcm.

Available water resources of the Naryn-Syr Darya reservoir cascade (total inflow + water storage in reservoirs excluding dead storage) is 26 117 mcm for the non-growing season 2024-2025.

(15 415 mcm + 10 702 mcm = 26 117 mcm)

Table 1

Reservoir	Non-growing season, mcm								
	2024-2025			2023-2024					
	norm	forecast	forecast/ norm (%)	norm	forecast	forecast/ norm (%)	actual	actual/ forecast (%)	actual/ norm (%)
Inflow to upper reservoirs									
Toktogul	**2932**	2993	102	**2945**	2746	93	3108	113	106
Andijan	**929**	817	88	**934**	851	91	720	85	77
Charvak	**1422**	1340	94	**1428**	1348	94	1476	109	103
Sub-total:	**5283**	**5150**	**97**	**5307**	**4945**	**93**	**5304**	**107**	**100**
Lateral inflow									
Toktogul – Uchkurgan	**398**	366	92	**400**	372	93	334	90	83
Uchkurgan, Uchtupe-Bakhri Tojik	**4397**	4240	96	**4423**	3633	82	3931	108	89
Andijan-Uchtupe	**2533**	2045	81	**2546**	2056	81	2054	100	81
Bakhri Tojik -Shardara	**2969**	2828	95	**2987**	2687	90	2764	103	93
Gazalkent -Chinaz (excluding Ugam)	**833**	786	94	**838**	790	94	743	94	89
Sub total:	**11130**	**10265**	**92**	**11194**	**9538**	**85**	**9826**	**103**	**88**
Total (total inflow):	**16413**	**15415**	**94**	**16501**	**14483**	**88**	**15130**	**104**	**92**

Table 2

Reservoir	Water volume in reservoirs, mcm			
	Actual as of October 1, 2024	Actual as of October 1, 2023	Difference 2024 "-" 2023	Dead storage
Upper reservoirs				
Toktogul	13036	11748	1288	5500
Andijan	987	775	212	150
Charvak	1805	1531	274	426
SUB-TOTAL:	15828	14054	1774	6076
In-stream reservoirs				
Bakhri Tojik	1716	1694	22	917
Shardara	1121	1008	113	970
SUB-TOTAL:	2837	2702	135	1887
TOTAL:	18665	16756	1909	7963

VI. **Water releases from reservoirs** (Table 3)

According to the forecast operation schedule of the Naryn-Syr Darya reservoir cascade, 27 644 mcm were planned to be released from the reservoirs during the non-growing season 2024-2025.

As to the non-growing season 2023-2024, , 27 884 mcm were planned to be released from the Naryn-Syr Darya reservoir cascade , while the actual water releases amounted to 23 731 mcm (by 4153 mcm less than in the forecast schedule).

Table 3

Reservoir	Water releases, mcm		
	Forecast schedule 2024-2025	Forecast schedule 2023-2024	Actual 2023-2024
Upper reservoirs			
Toktogul	7996	8212	7572
Andijan	691	820	523
Charvak (discharge from Gazalkent HPP)	2633	2364	2342
TOTAL:	11320	11396	10437
In -stream reservoirs			
Bakhri Tojik	9904	9500	9076
Shardara	6420	6988	4218
SUB-TOTAL:	16324	16488	13294
TOTAL:	27644	27884	23731

VII. Water withdrawal limits (Table 4)

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

The total volume of water withdrawal limit of water-user states is 4247 mcm for the non-growing season.

Table 4

Water-user state	Request, mcm
Republic of Kazakhstan (Dustlik canal)	488
Kyrgyz Republic	47
Republic of Tajikistan	365
Republic of Uzbekistan	3347
Total	**4247**

According to the data from the Ministry of Water Resources and Irrigation of the Republic Kazakhstan, inflow to the Aral Sea and the Aral Sea region is expected to be 1672 mcm for the non-growing season.

The actual inflow to the Aral Sea and the Aral Sea region at Karaten gauging station was 1273 mcm during the non-growing season 2023-2024.

Based on the forecast data and accumulated storage in reservoirs, as well as the request from water-user states, the forecast operation schedule for Naryn-Syr Darya reservoir cascade was drafted for October 1, 2024 to March 31, 2025. The schedule is shown in Table 5.

Table 5

Forecast operation regimes of the Naryn-Syr Darya reservoir cascade (October 1, 2024 – March 31, 2025)

Reservoir		October	November	December	January	February	March	Total mcm
Toktogul reservoir								
Inflow to reservoir:	$м^3/s$	250	212	179	162	163	175	
	mcm	669	549	478	434	395	468	2993
Volume: beginning of the season	mcm	13036	13102	12692	11467	9933	8656	
end of the season	mcm	13102	12692	11467	9933	8656	8033	
Water releases from reservoir	$м^3/s$	225	370	636	735	691	407	
	mcm	603	959	1703	1969	1672	1090	7996
Bakhri Tojik reservoir								
Inflow to reservoir	$м^3/s$	340	621	941	957	919	545	
(Akdjar g/s)	mcm	910	1611	2521	2563	2223	1459	11286
Volume: beginning of the season	mcm	1716	2390	2936	3170	3383	3479	
end of the season	mcm	2390	2936	3170	3383	3479	3446	
Water releases from reservoir	$м^3/s$	142	420	870	900	900	566	
	mcm	381	1089	2330	2411	2177	1516	9904
Shardara reservoir								
Inflow to reservoir	$м^3/s$	210	507	910	945	950	670	
	mcm	562	1314	2437	2531	2298	1795	10938
Volume: beginning of the season	mcm	1121	1089	1190	2248	3416	4720	
end of the season	mcm	1089	1190	2248	3416	4720	5175	

Reservoir		October	November	December	January	February	March	Total mcm
Water releases from reservoir	м^3/s	200	450	500	500	400	400	
	mcm	536	1166	1339	1339	968	1071	6420
Water supply to the Aral Sea	м^3/s	50	70	100	120	140	160	
	mcm	134	181	268	321	339	429	1672
Charvak reservoir								
Inflow to reservoir	м^3/s	102	91	78	69	69	101	
	mcm	272	236	209	186	167	271	1340
Volume: beginning of the season	mcm	1805	1726	1556	1247	906	637	
end of the season	mcm	1726	1556	1247	906	637	534	
Water releases from reservoir	м^3/s	139	157	193	197	180	140	
(Discharge from Gazalkent HPP)	mcm	373	406	518	527	435	374	2633
Andijan reservoir								
Inflow to reservoir	м^3/s	51	50	53	45	48	64	
	mcm	138	130	143	120	117	171	817
Volume: beginning of the season	mcm	987	955	961	1013	1023	1077	
end of the season	mcm	955	961	1013	1023	1077	1114	
Water releases from reservoir	м^3/s	63	48	34	41	26	50	
	mcm	170	124	90	110	63	134	691

Progress on implementation of the tasks set at the summits of the Heads of IFAS founder-states[3]

General information

The Summit of the Council of Heads of IFAS founder-states was held on August 24, 2018 in the city of Turkmenbashi. The heads of states put forward proposals and a number of initiatives aimed at environmental, water and socio-economic improvement in the Aral Sea basin and adopted a Joint Communique[4] .

On September 15, 2023, the regular meeting of the Council of Heads of IFAS founder-states was held in Dushanbe. The outcome of this meeting was the Dushanbe Statement addressing a wide range of matters of regional cooperation in water management, environmental, energy and socio-economic industries.

The progress on implementation of presidential initiatives put forward at the meeting in Turkmenbashi (since August 2018) and the tasks for ICWC arising from the meeting in Dushanbe (from September 2023) were considered at 85th (November 1-2, 2023, Tashkent) and 86th (April 12, 2024, Shymkent) ICWC meetings. The relevant decision of the 86th meeting reads as follows: "1. To acknowledge the efforts of water management organizations and executive bodies of the ICWC in implementing the proposals and initiatives put forward at the meetings of the Heads of IFAS founder-states in Turkmenbashi (2018) and Dushanbe (2023). 2. Executive bodies of ICWC shall present updates on implementation of the tasks arising from the IFAS summits at subsequent meetings."

Brief information on the work of the countries and executive bodies on implementation of the tasks set at the summits is presented below.

1. Institutional and legal improvement of IFAS, strengthening its capacity and image in the international arena

Work on institutional and legal improvement of IFAS has been continuing under the chairmanship of Kazakhstan (2024-2026). The following meetings were held: (1) 12th meeting of the Working Group (WG) on institutional and legal improvement of IFAS (September 4-5, Astana); (2) meeting of IFAS

[3] Information on the third item of the 87th ICWC meeting's agenda

[4] Progress on these initiatives has been regularly discussed at ICWC meetings since the 77th ICWC meeting (November 5-6, 2019). .

Board, where the EC IFAS Work Plan for 2024-2026 was approved. The Board also made a decision on WG activities underlining that “Item 2: EC IFAS jointly with ICWC, ICSD and relevant ministries and agencies of the IFAS founder-states shall take actions to accelerate process on the improvement of institutional and legal frameworks of IFAS” (September 18, Astana).

In Uzbekistan, a Working Group established by the Uzbek Cabinet of Ministers as part of the implementation of the Action Plan (Road Map) for the Implementation of Initiatives proposed by the President of the Republic of Uzbekistan at the Summit of Heads of State in Dushanbe on 15 September 2023 continues its activities. The Working Group analyzes the institutional structure of IFAS, conducts an inventory and review of its constituent documents and treaties, and develops proposals on coordination of the IFAS working bodies and their improvement.

2. Development and implementation of joint projects and programs as part of ASBP–4, 2020-2023

Under the chairmanship of Kazakhstan, IFAS is working on the implementation and systematic monitoring of ASBP-4. The meeting titled "Transboundary Water Cooperation in the Aral Sea Basin for a Better Future" (May 22, Bali) was organized by EC IFAS and IWAC as part of the 10th WWF. During the meeting, an outcome document was approved, emphasizing the strengthening of regional cooperation and consolidating support for the implementation of ASBP-4.

At the meeting of the IFAS Board (September 18, Astana), the information provided by the EC IFAS regarding the status of ASBP-4 implementation (item 1) was reviewed. A decision was made that EC IFAS, ICWC and ICSD, in collaboration with the relevant ministries and agencies of the founder-states of the Fund, shall continue joint efforts to ensure the implementation of ASBP-4 (item 2). Additionally, the EC IFAS will continue to provide regular updates to the IFAS Board on the progress of ASBP-4 (item 3).

At the request of EC IFAS (No. 10/3 of 19.04.2024, to IFAS structural divisions), proposals for improving the effectiveness of ASBP-4 implementation, along with information on the progress of projects aligned with the main directions of ASBP-4, were submitted to the countries.

SIC ICWC, at the request of EC IFAS, also provided a detailed project proposal for 1.14 titled "Water and Education: breeding the solicitous attitude towards water in the states of Central Asia", as well as the project proposal “Adjustment of hydromodule zoning and optimization of crop irrigation regime in the Uzbek territory of the Fergana Valley within the Syr Darya River basin” (project 1.11, ASBP-4). Additionally, collaboration with the French

Development Agency (AFD) is underway to secure financing for these projects.

3. Measures to address the consequences of the Aral disaster in a comprehensive manner

On August 13, the UN General Assembly in New York unanimously adopted a resolution, initiated by Uzbekistan titled "Fostering sustainable forest management, including afforestation and reforestation, in degraded lands, especially drylands, as an effective solution to environmental challenges". Over 100 member states, including all Central Asian states, co-sponsored the resolution.

In **Kazakhstan,** various projects are addressing the socio-economic development of the Aral Sea region and improving the living conditions of the population, including: "Zhassyl Kazakhstan"/"Green Kazakhstan" for 2021-2025 (PPRK No.731 of 12.10.2021) and "Environmentally oriented regional development of the Aral Sea region" (ECO ARAL). Saxaul is being planted over an area of 275,000 ha (about four times the size of Astana or two times the size of Shymkent). The project “Regional development and environmental restoration of the North Aral Sea in Kazakhstan” is to be implemented in the course of the Kazakhstan’s chairmanship of IFAS (the World Bank and the Government of Kazakhstan; the project will cover the Kazakh part of the Aral Sea region and the territory of Kyzylorda province). The ultimate goal is to fill the Saryshyganak bay so that the sea reaches up to Aralsk. According to the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan[5], the volume of water in the North Aral Sea reached 27 billion m^3 by July 2024 through the reconstruction of the Kokaralsk dam and joint efforts with Kyrgyzstan and Uzbekistan.

Turkmenistan is working on the implementation of E/ESCAP/RES/79/8 resolution “Consideration of the modalities for the establishment of the United Nations Special Programme for the Aral Sea Basin" / UN SPAS (May 15-19, 2023, Bangkok, Thailand). Consultations with relevant UN agencies are underway to prepare project documents for the establishment of the UN SPAS. Specifically, the feasibility and potential modalities for the establishment of the Special Programme have been studied. The findings will be presented at an expert meeting in Ashgabat at the end of November 2024.

At the 79th session of the UN General Assembly on September 27, 2024, the Minister of Foreign Affairs of Turkmenistan, Rachid Meredov, called for greater UN involvement in efforts to save the Aral Sea. As a concrete step,

[5] ”The achievement of this indicator is attributed to the fact that 650 m^3 of water per second now flows through the Syr Darya River to the Kyzylorda region. Joint efforts have been carried out with Uzbekistan and Kyrgyzstan. Specifically, water supply plans have been approved and are currently implemented. There is enough water to irrigate crops,“ stated N. Nurjigitov, Minister of Water Resources and Irrigation."

Turkmenistan is collaborating with the UN to establish a specialized agency – the Regional Center for Climate Change Technologies. Additionally, Turkmenistan is implementing its National Program on the Aral Sea for 2021-2025, alongside the project titled “Conservation and sustainable management of land resources and high-nature-value ecosystems in the Aral Sea Basin for multiple benefits” (UNDP/GEF).

In Uzbekistan, the national program “Yashil Makon”[6] is implemented to conserve and restore biodiversity by promoting the greening of urban and rural areas. The Ministry of Ecology, Environment, and Climate Change of Uzbekistan, in collaboration with UNDP, has signed two agreements to launch a new phase of the Small Grants Programme (SGP) in 2025 and to continue supporting the “Yashil Makon” initiative. Additionally, equipment valued at 2 billion sums has been provided to protected natural areas in the Aral Sea region.

At the VI Consultative Meeting of the Heads of State of Central Asia, the President of Uzbekistan proposed that Central Asian countries issue a unified statement at the upcoming Climate Summit in Azerbaijan in November 2024. He called for a joint presentation on the region's environmental situation to draw the attention of the international community, funds, and donor organizations to the urgent challenges, including the Aral Sea disaster.

SIC ICWC continues its efforts on (1) assessing the inflow from Amu Daray River and collectors; (2) evaluating the water surface, wetlands and the dried bed of the Large and Small/North Aral Sea, as well as other water bodies in the Aral Sea region, using satellite imagery; (3) implementing the project titled “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 better water management in ASB.

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

In Kazakhstan, work is in progress[7] on implementation of the Plan for the irrigation network automation in 2021-2025. Specifically, 3 500 km of irrigation networks in the Almaty, Jambyl, Kyzylorda and Turkistan provinces are to be digitized. Additionally, design and estimate documentation is being prepared for 17 facilities. The Ministry of Water Resources and Irrigation of the Republic of Kazakhstan, together with the national company “Kazakstan Ғarysh

[6] Presented at the UN High-Level Forum 'Her Land, Her Rights: Advancing Gender Equality and Land Restoration Goals' on the occasion of the World Day to Combat Desertification and Drought, held on June 17, 2023 in New York.

[7] The results of the first half of 2024, Ministry of Water Resources and Irrigation of the Republic of Kazakhstan (MWRI RK).

Sapary", works on the development of a unified water information system to monitor the distribution and use of water to the end user. A digital platform hydro.gov.kz has been created. It contains a single water cadastre indicating water bodies, hydraulic structures, water management basins and sites, and gauging stations.

Kazakhstan and Uzbekistan have identified 10 gauging stations along the Syr Darya River where automatic water accounting systems will be installed. Additionally, both parties have agreed to develop a **Regional strategy for the rational use of water resources.** This strategy represents a significant step toward improving water management and preserving the ecology of the Syr Darya and Amu Darya River basins.

Tajikistan continues implementing its "Water Sector Reform Programme for 2016-2025, which aims at a complete transition to integrated water resources management. In particular, drafts of the "National Water Strategy of Tajikistan for the period up to 2040" and the "State Program for Drinking Water Supply and Sanitation for the period up to 2032" have been developed and submitted to the government for consideration. Additionally, the work is ongoing on the development of a unified water information system.

In February 2024, transboundary gauging stations "Patar" and "Sarvak" were installed[8] along the North and Big Fergana canals on the border between Uzbekistan and Tajikistan. The purpose of these stations is to monitor transboundary water, enabling accurate measurement of water usage for irrigation. Joint efforts will be made for the rehabilitation and maintenance of the gauging stations, as well as for the exchange and utilization of the data obtained.

In Turkmenistan, measures to conserve water resources and create additional water reserves will continue as part of the "Programme of Socio-Economic Development of the President of Turkmenistan for 2019-2025".

SIC ICWC has begun[9] the pre-project survey of the technical condition (including the necessary normative and methodological documents for the feasibility study of automation) of gauging stations selected by the Republic of Kazakhstan in the Syr Darya River basin. At the request of BWO Syr Darya, studies have been conducted to clarify components of the water balance of the Syr Darya River and its main tributaries for the period 2019-2023. In collaboration with the BWO Amu Darya, control measurements of water discharge at the main gauging stations and canals in the middle reaches of the Amu Darya River have been carried out since September. Based on these measurements, the methodology for calculating the water balance of the Amu

[8] The project was implemented with the support of the Swiss Government's Blue Peace Central Asia initiative.
[9] as part of the Regional Transformation Mechanism project

Darya River has been refined (September 13-23, Turkmenabad; October 13-23, Lepab province).

5. Developing an integrated and mutually beneficial mechanism of cooperation on water and energy in Central Asia

Kazakhstan continues working on a Central Asian Water and Energy Cooperation Mechanism aimed at the rational use of water and energy resources in the Aral Sea basin. A draft agreement on this mechanism is under development and engages the Central Asian countries. In his speech at the VI Consultative Meeting of the Heads of the Central Asian States (Astana, August 9, 2024), the President of Kazakhstan highlighted the **rational use of water and energy resources** as one of priorities on the regional agenda. “Initiatives for the joint construction of hydroelectric power plants and the establishment of a water and energy consortium for Central Asian countries could form the foundation for multilateral water cooperation. The digitalization of water distribution and metering, promotion of remote sensing technologies and systematic scientific work are among urgent tasks”, said the President. The Minister of Foreign Affairs of the Republic of Kazakhstan, Murat Nurtleu, spoke about the creation of a long-term and sustainable cooperation mechanism for the efficient use of water and energy resources in Central Asia in his speech at the General Debate of the 79th session of the UN General Assembly (September 28, New York).

SIC ICWC in collaboration with the countries of the region works[10] on approaches and recommendations for a financial mechanism on water and energy cooperation in Central Asia.

6. Regional co-operation and water diplomacy

Kazakhstan, in collaboration with France, will organize the "One Water Summit" on the margins of the 16th session of the Conference of the Parties to the UN Convention to Combat Desertification on December 3, 2024. The event aims to accelerate progress on SDG 6 (clean water and sanitation) and discuss solutions to water challenges in preparation for the UN Water Conference in 2026.

In Kazakhstan, in line with the Concept of Water Management System Development for 2024-2030 (PP RK No. 66 of February 5, 2024), the development of transboundary cooperation is a key aspect of state policy in the field of water relations. The target indicator in this regard is the signing of further trilateral agreements between the Republic of Kazakhstan and its neighboring countries on the joint management and use of transboundary water

[10] as part of the Regional Transformation Mechanisms project

bodies.

According to the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan, as a result of agreements between the countries on the operation schedules of the Toktogul and Bakhri–Tojik reservoirs, water continuously flows into the Kazakh section of the interstate canal "Dostyk". This ensures stable supply of irrigation water to farmers in Turkistan province.

A water diplomacy discipline has been opened at Al-Farabi Kazakh National University (KazNU). A training for diplomats from Central Asia on the implementation of the SDGs and water diplomacy was held at the Academy of Public Administration under the President of the Republic of Kazakhstan (June 10-12, Astana).

Tajikistan actively promotes water on the global agenda and has initiated the "Dushanbe Water Process". The 3rd High-Level Conference on the International Decade for Action, "Water for Sustainable Development" (2018–2028) was held, resulting in the adoption of the Final Declaration. As part of the conference, the following events took place: the Central Asian Forum on "Water and Climate Change", the Parliamentary Forum on MCR30 titled "Water Resources and Demographic Resilience in the Interests of Youth", and others. The conference provided a timely and essential platform to build on the progress made at the UN Water Conference 2023, including advancing the Water Agenda (June 10–13, Dushanbe), the International Forum on Glaciers dedicated to the International Year of Glaciers' Preservation in 2025, the Forum on "Women and Water", and the Youth & Children's Water and Climate Forum, among others. Speaking at the 79th General Debate of the UNGA, the President of Tajikistan emphasized the importance of utilizing the "Dushanbe Water Process" platform to ensure a follow up on the outcomes of the UN Water Conference 2023 (September 24, New York).

The 7th meeting of the Joint Working Group on Integrated Use of Transboundary Water Resources of Central Asia between the Republic of Tajikistan and the Republic of Uzbekistan was held in Dushanbe on August 3.

Water diplomacy is a key priority in **Turkmenistan's** foreign policy and is actively promoted across various international platforms. On April 30, Ashgabat hosted the Regional Water Conference, bringing together Central Asian countries to mark the Earth Day. The conference focused on ongoing reforms in the water sector across Central Asia, strategies for its development, and shared experiences in implementing regional projects by USAID, GIZ, and UNDP aimed at the effective management of water resources.

Uzbekistan. The National Research University (NRU) "TIIAME" and the University of World Economy and Diplomacy (UWED) have signed a Memorandum of Understanding to offer a dual degree in the joint master's

program “Water Diplomacy”, set to begin in the 2025-2026 academic year. NRU “TIIAME”, in collaboration with UMED, the Diplomatic Academy of the Ministry of Foreign Affairs of the Kyrgyz Republic, and IWMI, conducts training courses on water diplomacy for faculty members from Central Asian universities as part of the HWCA Erasmus+ project. Additionally, the Institute for Advanced International Studies under UMED has drafted a concept for the Central Asian Center for Water and Climate Diplomacy, which is currently undergoing the approval process.

The **SIC ICWC** continues its membership in the Board of Governors of the World Water Council, having taken part in its 87th meeting on May 19. It also serves as the Vice-Chair of the Implementation Committee of the Water Convention, with its most recent meeting held online on July 19. The SIC ICWC maintains strong cooperation with organizations such as UNECE, ICID, OECD, UNESCO, ADB, EECCA NWO, SDC, EDB, GIZ, and other partners. Additionally, it is engaged in discussions regarding the establishment of a Working Group on Water Law within the Global Forum on Law, Justice, and Development (GFLJD) under the World Bank. The SIC ICWC participated in the following events: (1) session on “Water Diplomacy in Transboundary Basins” at the World Water Forum (WWF) May 23, Bali; (2) workshop “The Phenomenon of Convergence in International Law” (June 25, online); and (3) international conference "Rethinking the Concept of ’Community‘ in International Water Law" (June 26, online), both organized by the Faculty of Law at the University of Edinburgh and the International Academy of Water Law at Wuhan University.

7. Water conservation and climate change adaptation

Central Asian countries have endorsed the Regional Climate Change Adaptation Strategy in Central Asia (RCCAS CA) aimed at achieving four strategic objectives: 1) strengthen regional coordination for climate change; 2) create mechanisms for the development and implementation of adaptation projects/programs; 3) improve adaptive capacity through accumulation and sharing of knowledge and scientific cooperation; and 4) develop climate monitoring, information exchange and forecasting systems. The process of preparing the "Feasibility Study for Further Support to the Regional Strategy" has been launched. National and regional dialogues[11] were held in May to discuss key issues related to the joint implementation of the Regional Strategy (in May).

[11] Organized by the Collective Leadership Institute (CLI) with support from GIZ

Kazakhstan is implementing the **Concept of Water Resources Management System Development for 2024-2030** (PP RK No. 66 of February 5, 2024). This includes the development of a new regulatory framework to support an effective water-saving policy, demand management, and the reuse of treated wastewater, which will become a key source of water supply. The initiative also focuses on the modernization of water infrastructure, the introduction of water-saving technologies, the digitalization of water accounting and distribution, the implementation of a new tariff policy, and the promotion of a water-saving culture. The Ministry of Water Resources and Irrigation of Kazakhstan has developed the following initiatives: (1) Roadmap for Water Saving for 2024-2026; (2) **Comprehensive Development Plan for the Water Sector of Kazakhstan for 2024-2028,** which aims at the comprehensive modernization of water infrastructure, adoption of advanced water-saving irrigation technologies, digitalization and automation of water accounting on irrigation canals, and construction of new reservoirs and storage ponds to accumulate snowmelt and floodwater; (3) new draft Water Code has been submitted to the Majlis of the Parliament for consideration. The Code prioritizes the efficient use of water resources, the widespread adoption of water-saving technologies, and the establishment of water recycling systems. According to the decree, **the Committee for Regulation, Protection, and Use of Water Resources** was established under the Ministry of Water Resources of the Republic of Kazakhstan. Its main functions include: oversee compliance with regulations on economic activities in water protection zones and strips, engage in determination of procedures for ensuring safety of water infrastructure, and exercise state control over the use and protection of the water fund. The Regulations governing the Committee have been approved.[12]

As a crucial step towards a strategic approach to environmental challenges in Central Asia, **Turkmenistan** is actively working to establish a specialized institution—**the Regional Center for Climate Change Technologies in Central Asia.** The center will focus on areas such as climate change adaptation, restoration of fragile ecosystems, and the reduction of greenhouse gas emissions, among other key objectives.

Uzbekistan has established the **Climate Council** (CC) under the President of Uzbekistan[13] to monitor the implementation of the country's commitments under the UN Framework Convention on Climate Change and the Paris Agreement. The following documents have been approved: the composition of the Climate Council, the regulations governing the Council, and the roadmap for the development and implementation of the national strategy on

[12] Order No. 115-NQ of 16 July 2024 of the Minister of Water Resources and Irrigation of the Republic of Kazakhstan

[13] UP No 106 of 23.07.2024 "On the establishment of the Climate Council under the President of the Republic of Uzbekistan", https://lex.uz/ru/pdfs/7044892.

climate change mitigation and adaptation, as well as a unified state policy in this area. Additionally, the National Center for Ecological Transformation and Climate Change Adaptation, a state institution under the Ministry of Ecology, has been renamed the **National Center for Climate Change**, which will serve as the working body of the Climate Council.

In his speech at the VI Consultative Meeting**,** the **President of Uzbekistan** highlighted a new proposal for the development and adoption of **a comprehensive Program for the Sustainable Development of Central Asia,** which includes the **Regional Strategy for the Rational Use of Transboundary Water.**

In light of the urgent need for water conservation, the President of Uzbekistan declared **2024 as the period of transition to an emergency water-saving regime in the country.** A governmental decree was issued in support and includes provisions for accelerated financing and the concreting of major canals. One of the Ministry of Water Resources of the Republic of Uzbekistan's key priorities is to increase the use of water-saving technologies (WST) in crop production. At the regional level, it is essential to intensify efforts to implement WST, exchange experiences in their application, and promote their production.

The **BWO Syr Darya** is actively involved in the implementation of the regional program "Climate Risk Management in Central Asia" (GIZ). Discussions have been initiated with the International Water Management Institute (IWMI) under the WE-ACT project regarding the installation of a gauging station on the Naryn River, located on the border with the Republic of Uzbekistan. This station aims to provide more accurate measurement of water flowing from the Kyrgyz Republic.

The **SIC ICWC,** in cooperation with BWO Amu Darya and BWO Syr Darya, conducts ten-day monitoring of water balance in the Amu Darya and Syr Darya River basins[14]. Together with its partners[15], SIC ICWC has begun assessing water security in the Aral Sea basin and has prepared educational materials for a training course on water and climate. At WWF 10, SIC ICWC participated in a side event organized at the UNESCO pavilion to launch the UNESCO/UNITWIN Climate Education Network (May 20, Bali).

[14] Analytical briefs are published in sections 'Water management situation in the Amu Darya basin', 'Water management situation in the Syr Darya basin' and in the weekly newsletter 'Water management, irrigation and ecology in EECCA countries', which is distributed among 77 recipients.
[15] as part of Regional Transformation Mechanisms project

8. Capacity-building and scientific cooperation

According to Governmental Resolution, the Kazakh National University of Water Management and Irrigation has begun operations in Taraz. New curricula will be introduced there - "Water Management and Land Reclamation", "Geodesy and Cartography", "Hydraulic Engineering in Water Management", "Engineering Water Supply Systems", and "Innovative Technologies in Water Management". The Ministry of Water Resources and Irrigation of the Republic of Kazakhstan takes measures to make water education more attractive. Specifically, such water disciplines as "Hydrogeology", "Water Resources", and "Water Security" were included in the "Bolashak" program, allowing Kazakh students to study these fields abroad. Memorandum of understanding has been signed with the Kingdom of the Netherlands and the Delft Institute of Water Education (IHE Delft). Additionally, a consortium of leading water research and educational organizations has been established in collaboration with the Ministry of Science and Higher Education. In 2024, 450 water professionals will be trained at specialized centers.

The Youth and Children Forum on Water and Climate, held on June 10 in Dushanbe, **Tajikistan,** as part of the 3rd Dushanbe International Water Conference of the International Decade of Action "Water for Sustainable Development", became an important platform for exchanging experiences and ideas. It highlighted that young people can play a more active role in addressing global, regional, and national challenges related to water resources and climate change.

The Academy of Sciences of **Turkmenistan** has developed the concept "Strategy for the Development of the Scientific System of Turkmenistan for 2024-2052", and corresponding five-year development programs have been adopted for its implementation.

SIC ICWC and its partners[16] have begun efforts to strengthen and potentially merge the activities of the ICWC Regional Training Center and the EECCA Expert Platform on Water Security, Sustainable Development and Future Studies. This initiative aims to enhance the capacity of practitioners, with a particular focus on youth and women. Additionally, work has been initiated on the Central Asia's water heritage to recognize its value for current and future water management. Specifically, efforts are underway to outline the requirements for nominating Central Asian water heritage sites for recognition as ICID's "World Heritage Irrigation Structures" or for inclusion in the UNESCO World Heritage List.

[16] as part of Regional Transformation Mechanisms project

SIC ICWC, in collaboration with national experts from Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, and with the support from GIZ, has started analytical studies on: (1) “Infrastructure challenges and resilience to climate change (Nexus approach)”, in support of the Basin Dialogue in the Syr Darya River Basin; and (2) “Collaborative efforts to conserve ecosystems in the Amu Darya River Basin, including zones of flow formation and dispersion”, to inform the Basin Dialogue in the Amu Darya River Basin.

The minutes of the 86th ICWC meeting (Shymkent, April 12-20, 2024) note the importance of **strengthening training activities at both the regional and national levels**. ICWC members instructed SIC ICWC to collaborate with international partners to get timely information on upcoming regional workshops and to ensure that workshop materials are posted on the ICWC website. To this end, SIC ICWC has carried out the following activities:

Calendar of regional trainings

- SIC ICWC collects information on upcoming training and professional development courses from open sources and posts it on the Training Center’s website (http://cawater-info.net/training/index.htm). This information is available at the “Calendar of Events” section (http://cawater-info.net/training/calendar.htm) and in the Yearbook’s section “Professional Development Courses and Trainings in 2024”.
- On April 15, 2024, requests were sent to key development partners (UNDP, UNESCO, WB, ADB, USAID, CAREC, IWMI, GIZ, SDC) to provide information about upcoming regional-level trainings.

Updating of teaching and learning materials

- Materials for the course “Political and legal aspects of water resources management in Central Asia” and the training manual on water accounting and automation at large hydrosystems and reservoirs are in process of updating.
- A new training manual titled “Modernization of management, operation, and maintenance of irrigation systems: A win-win measure for adaptation to climate change impacts” and a new training course (manual) on “Climate change impacts on water resources” are under developed.

Renewal of Material and Technical Base

- The SIC ICWC Training Center premises have begun repaired, and funding has been allocated for procurement of necessary equipment.

Training Needs

- Professional development programs and trainings are under preparation based on individual requests from organizations (OSCE, Ministry of Water Resources and Irrigation of the Republic of Kazakhstan).

Project pipeline

A consortium consisting of the International Water Management Institute (IWMI), the International Union for Conservation of Nature (IUCN) in cooperation with the Regional Environmental Center for Central Asia (CAREC) is launching the Blue Peace Central Asia 2.0 (BPCA 2.0) program.

Project brief: In its initial phase (until April 2025), the project seeks recommendations from stakeholders of the Central Asian participating states on the following key items: (1) potential activities within the three areas of Water Diplomacy: environmental management, specialized education, and data collection; (2) identification, selection, and harmonization of two small transboundary tributaries, where the development of basin plans, joint management plans, and investments are planned. At these sites, the project will focus on supporting existing institutional and intergovernmental cooperation mechanisms, enabling national institutions and scientists to conduct comprehensive data collection that will provide evidence for the investment planning process. In this context, the project consortium proposes two small transboundary tributaries —Chirchik (Kaz-Uzb) and Shokhimardan (Kyr-Uzb)—as well as two pilots—Karatag (Taj-Uzb) and Murghab (Afg-Turkm); (3) establishment of a Project Advisory Board, which will include permanent representatives from all five Central Asian states, with potential participation from water, environment, and other relevant ministries. The board will also include non-permanent representatives from government agencies involved in sectors related to water resources management.

Analytics

Analysis of water management situation in the Syr Darya and Amu Darya River Basins for the growing season 2024

1 Syr Darya River Basin

During the growing season, the actual inflow to the upper reservoirs of the Syr Darya River basin (Toktogul, Andijan, Charvak) was 18.23 km^3 or 110% of the forecast, 98% of the norm (18.5 km^3) and by 2.73% km^3 more than in the growing season 2023.

Total lateral inflow to the Naryn and Syr Darya Rivers amounted to 10.5 km^3 in the reach up to the Chardara reservoir (by 3.2 km^3 more than in the growing season 2023), including 1.48 km^3 from the Karadarya River (Uchtepa g/s), 1.32 km^3 from the Chirchik River (Chinaz-Chirchik g/s), and 7.7 km^3 from return flow and small rivers.

Water accumulation in the upper reservoirs (Toktogul, Andijan, Charvak) was 8.85 km^3 by the beginning of the growing season. By the end of the growing season, the water volume was 15.83 km^3 in the upper reservoirs, i.e. water accumulation was 6.98 km^3.

The inflow to the Toktogul reservoir from the Naryn River reached 10.7 km^3, which is by 1.36 km^3 more than the forecast and 109% of the norm (9.8 km^3). Discharge from the reservoir amounted to 5.0 km^3, which is by 0.78 km^3 (14%) less than scheduled by BWO Syr Darya. The total water withdrawal from the Naryn River made up 5.7 km^3 (inflow – water releases: 10.7 - 5.0 = 5.7). This is by 60% more than scheduled by BWO Syr Darya.

In the Bakhri Tojik reservoir the water volume was 3.32 km^3 at the beginning of the growing season and 1.72 km^3 by the end of the growing season. Inflow to the Bakhri Tojik was 6.33 km^3, and total water releases amounted to 7 km^3, including 6.42 km^3 of water discharged into the river. Analysis of Bakhri Tojik operation shows that reservoir accumulated by 1.12 km^3 more than planned by BWO and, accordingly, water releases from the reservoir into the river were by 0.26 km^3 more than scheduled.

Total water withdrawal from the Naryn and Syr Darya rivers in reaches up to Shardara reservoir amounted to 9.85 km^3 or 83% of the limit. During the growing season 2024, the water withdrawal was by 2.05 km^3 less than planned by limits approved at the ICWC meeting. Due to heavy rainfall from April to May, no requests for water have been submitted.

The total water withdrawal was 0.73 km^3 for Kazakhstan (through the Dustlik canal), 0.24 km^3 for the Kyrgyz Republic, 1.31 km^3 for Tajikistan, and 7.57 km^3 for Uzbekistan.

In the Shardara reservoir the water volume was 4.8 $км^3$ at the beginning of the growing season and 1.12 km^3 by the end of the growing season. Inflow to the Shardara reservoir amounted to 5.2 km^3 or 141% of the plan. The discharge from the Shardara reservoir amounted to 6.29 km^3.

According to the Committee for Water Resources of Kazakhstan, water supply to the Aral Sea and Aral Sea region (Karateren g/s) was 0.97 km^3in the growing season.

Water use in the lower reaches of the Syr Darya (including water withdrawal plus water losses, minus lateral inflow) is estimated at 4.29 km^3, this is less by 18% of the plan.

Table 1.1

Indicators of available water supply for the riparian countries of the Syr Darya River Basin in the growing season 2024

Water user	Water volume, km^3	
	BWO schedule /limit	Actual
1 Total water withdrawal (in the reach up to Shardara reservoir)	11.90	9.85
2 By country:		
– *Kyrgyz Republic*	0.270	0.244
– *Republic of Uzbekistan*	8.800	7.566
– *Republic of Tajikistan*	1.905	1.312
– *Republic of Kazakhstan*	0.921	0.728
3 By river reach		
3.1 Toktogul reservoir – Uchkurgan hydroscheme	3.99	3.52
Including:		
– *Kyrgyz Republic*	0.21	0.18
– *Republic of Tajikistan*	0.24	0.09
– *Republic of Uzbekistan*	3.55	3.24
3.2 Uchkurgan hydroscheme – Bakhri Tojik reservoir	1.05	1.00
Including:		
– *Kyrgyz Republic*	0.06	0.06
– *Republic of Tajikistan*	0.45	0.46
– *Republic of Uzbekistan*	0.54	0.48
3.3 Bakhri Tojik reservoir – Shardara reservoir	6.85	5.33
Including:		
– *Republic of Kazakhstan*	0.92	0.73
– *Republic of Tajikistan*	1.22	0.76
– *Republic of Uzx*	4.71	3.84
4 In addition:		
– Inflow to Shardara reservoir	3.69	5.20
– Discharge into Arnasay	0.00	0.07
– Water supply to the Aral Sea and Aral Sea region[17]	1.00	0.97

[17] Committee for Regulation, Protection and Use of Water Resources at the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan

Table 1.2

Water balance of the Syr Darya River in the growing season 2024

Balance item	Water volume, km^3		Difference (actual-plan)	
	Forecast/ plan	Actual	km^3	%
1 Inflow to Toktogul reservoir	9.34	10.69	1.36	15
2 Lateral inflow in the Toktogul reservoir -Shardara reservoir reach (+)	9.23	10.49	1.26	14
including:				
– *Disharge from the Karadarya river (Uchtepa g/s)*	1.34	1.48	0.14	10
– *Discharge from the Chirchik river (Chinaz-Chirchik g/s)*	1.21	1.32	0.11	9
– *Lateral inflow from CDN and small rivers*	6.68	7.70	1.02	15
3 Flow regulation by reservoirs: recharge (+) or diversion of flow (-)	-2.62	-5.61	-2.99	114
Including:				
– *Toktogul reservoir*	-3.56	-5.70	-2.14	60
– *Bakhri Tojik reservoir*	0.95	0.09	-0.86	90
4 Regulated flow (1+2+3)	15.95	15.57	-0.38	2
5 Water diversion in the Toktogul – Shardara reach (-)	-11.90	-9.85	2.05	17
6 Inflow to Shardara reservoir	3.69	5.20	1.50	41
7 Water releases from Shardara reservoir (into the river and water withdrawal)	6.21	5.27	-0.94	15
8 Water use (-) downstream of Shardara reservoir (water withdrawal - lateral inflow + losses)	-5.21	-4.29	0.92	18
9 Water supply to the Aral Sea and Aral Sea region	1.00	0.97	-0.02	2

Table 1.3

Reservoir water balance in the Syr Darya River basin for the growing season 2024

Balance item	Water volume, km^3		Difference (actual-plan)	
	Forecast/ plan	Actual	km^3	%
1. Toktogul reservoir				
1.1 Inflow	9.34	10.69	1.36	15
1.2 Water volume:				
– beginning of the season (1 April 2024)	7.28	7.28	0.00	0
– end of the season (1 October 2024)	10.84	13.04	2.19	20
1.3 Water releases	5.77	4.99	-0.78	14
1.4 **Flow regulation:** recharge (+) or diversion of flow (-)	-3.56	-5.70	-2.14	60
2. Andijan reservoir				
2.1 Inflow	2.41	2.47	0.05	2
2.2 Water volume :				
– beginning of the season (1 April 2024)	0.96	0.96	0.00	0
– end of the season (1 October 2024)	1.06	0.99	-0.07	7
2.3 Water releases	2.30	2.38	0.07	3
2.4 **Flow regulation:** recharge (+) or diversion of flow (-)	-0.11	-0.09	0.02	
3. Charvak reservoir				
3.1 Inflow	4.88	5.07	0.19	4
3.2 Water releases				
– beginning of the season (1 April 2024)	0.61	0.61	0.00	0
– end of the season (1 October 2024)	1.71	1.81	0.09	6
3.3 Water releases	3.82	4.83	1.01	26
3.4 **Flow regulation:** recharge (+) or diversion of flow (-)	-1.06	-0.24	0.82	78
4 Bakhri Tojik reservoir				
4.1 Inflow	5.21	6.33	1.12	22
4.2 Lateral inflow	0.28	0.155	-0.12	45
4.3 Water volume				
– beginning of the season (1 April 2024)	3.32	3.32	0.00	0
– end of the season (1 October 2024)	1.70	1.72	0.02	1
4.4 Water releases	6.73	6.998	0.26	4
including*:*				
– *water releases into the river*	6.16	6.42	0.26	4
– *water diversion from the reservoir*	0.58	0.58	0.00	0
4.5 **Flow regulation:** recharge (+) or diversion of flow (-)	0.95	0.09	-0.86	90
5 Shardara reservoir				
5.1 Inflow	3.69	5.20	1.50	41
5.2 Lateral inflow	0.00	0.00	0.00	

Balance item	Water volume, km^3		Difference (actual-plan)	
	Forecast/ plan	Actual	km^3	%
5.3 Water volume:				
– beginning of the season (1 April 2024)	4.82	4.82	0.00	0
– end of the season (1 October 2024)	1.03	1.12	0.09	9
5.4 Water releases	7.04	6.29	-0.75	11
Including:				
– *discharge into Arnasay*	0.00	0.07	0.07	
– *water releases into the river*	6.21	5.27	-0.94	15
– *water diversion from the reservoir*	0.83	0.95	0.12	15
5.5 **Flow regulation:** discharge (+) or diversion of flow (-)	2.52	0.07	-2.45	97
TOTAL flow regulation by reservoirs: recharge (+) or diversion of flow (-)	-1.27	-5.87	-4.60	362

2 Amu Darya River Basin

The actual flow in the Amu Darya River at “nominal Kerki” g/s (upstream of water intake to Garagumdarya) was 44.11 km^3 (94% of the norm), which is by 3.48 km^3 more than expected by BWO Amu Darya (Table 2.2). For comparison, the actual river flow was 43.46 km^3 in the growing season 2023.

Inflow to Nurek dam amounted to 16.39 km^3 and was more than the projected flow by 1.36 km^3. Water releases from the reservoir were 12.63 km^3, which is by 1.64 km^3 more than scheduled by BWO Amu Darya. Diversion of river flow through accumulation of water in the Nurek reservoir amounted to 3.75 km^3 (Table 2.3).

Based on data from Darganata g/s, inflow to the Tuyamuyun hydroscheme (TMHS) was 18.07 km^3, which exceeded the expected inflow by 1.86 km^3. As a result, 0.75 km^3 more water was accumulated in the reservoirs of TMHS during the growing season and reached a total of 4.0 km^3. Water releases from TMHS exceeded the planned amount by 0.63 km^3, totaling 14.83 km^3.

In the current water management situation, the established water withdrawal limit for the Amu Darya River basin was covered by 85% (Table 2.1). The total water withdrawal was 33.83 km^3, including 26.72 km^3- downstream of Kerki g/s (starting from water intake to Garagumdarya). The average water availability was 91% for Tajikistan, 90% for Turkmenistan, and 79% Uzbekistan in the growing season.

In the growing season, water supply to the Aral Sea region and the Aral Sea amounted to 1.24 km^3 (from the Amu Darya River at Samanbay g/s plus discharge from CDN) or 59% of BWO’s forecast schedule.

Table 2.1

Indicators of available water supply for the countries of the Amu Darya River Basin in the growing season 2024

Water user	Water volume, km^3		Water availability, %	Shortage (-), surplus (+), km^3
	Limit/ schedule	Actual	Season	Season
1. Total water withdrawal	**39.70**	**33.83**	**85**	**-5.9**
2. Breakdown by states:				
Kyrgyz Republic	-	-	-	-
Republic of Tajikistan	7.0	6.3	91	-0.7
Turkmenistan	15.5	14.0	90	-1.5
Republic of Uzbekistan	17.2	13.5	79	-3.7
3. Downstream of nominal Kerki g/s	**31.520**	**26.72**	**85**	**-4.8**
including:				
Turkmenistan	15.5	14.0	90	-1.5
Republic of Uzbekistan	16.0	12.8	80	-3.3
4. By river reach:				
Upper reaches	**8.182**	**7.11**	**87**	**-1.1**
including:				
Kyrgyz Republic	-	-	-	-
Republic of Tajikistan	6.98	6.33	91	-0.7
Syrkhandarya province, Uzbekistan	1.20	0.78	65	-0.4
Middle reaches	**16.207**	**15.70**	**97**	**-0.5**
including:				
Turkmenistan	10.47	10.24	98	-0.2
Republic of Uzbekistan	5.73	5.45	95	-0.3
Lower reaches	**15.313**	**11.02**	**72**	**-4.3**
including:				
Turkmenistan	5.03	3.72	74	-1.3
Republic of Uzbekistan	10.285	7.31	71	-3.0
5. Additionally:				
Emergency-environmental flow to canals in the lower reaches	0	0		
including:				
Turkmenistan	0	0		
Republic of Uzbekistan	0	0		
Water supply to the Aral Sea region and the Aral Sea **	2.10	1.24	59	-0.9

***)** nominal Kerki g/s (upstream of water intake to Garagumdarya)

**) including discharge from CDN

Table 2.2

Water balance of the Amu Darya River in the growing season 2024

Balance item	Water volume, km^3		Difference (actual-plan)	
	Forecast /plan	actual	km^3	%
1. Flow in the Amu Darya River – non-regulated flow at nominal Kerki station*	40.63	44.11	3.48	9
2. Flow regulation by Nurek reservoir: recharge (+) or diversion of flow (-)	-4.03	-3.75	0.28	7
3. Water intake in middle reaches (-)	-16.21	-15.70	0.51	3
4. Return flow in middle reaches (+)	0.95	0.94	-0.01	1
5. River flow at Darganata g/s	16.21	18.07	1.86	11
6. Water releases from TMHS (including water intake from the reservoir)	14.20	14.83	0.63	4
7. Water intake in lower reaches, including water intake from TMHS (-)	-15.31	-11.02	4.29	28
8. Return flow in lower reaches (+)	0.00	0.00	0.00	
9. Emergency-environmental flow to canals (-)	0.00	-0.01	-0.01	
10. Supply to the Aral Sea region and the Aral Sea (Samanbay g/s)	0.58	0.45	-0.13	22

* Amu Darya River flow (upstream of water intake to Garagumdarya) at the non-regulated flow rate at Nurek dam (excluding regulation of flow of the Vakhsh River).

Table 2.3

Reservoir water balance in the Amu Darya River basin in the growing season 2024

Balance item	Water volume, km^3		Difference (actual-plan)	
	Forecast /plan	Actual	km^3	%
1 Nurek reservoir				
1.1. Inflow	15.03	16.39	1.36	9
1.2. Water volume:				
– beginning of the season (1 April 2024)	6.02	6.02	0.00	0
– end of the season (1 October 2024)	10.52	10.57	0.05	0
1.3. Water releases	11.00	12.63	1.64	15
1.4. **Flow regulation:** recharge (+) or diversion (-) of flow	-4.03	-3.75	0.28	7
2 Reservoir of TMHS				
2.1 River flow at Darganata g/s	16.21	18.07	1.86	11
2.2 Water volume:				
– beginning of the season (1 April 2024)	2.97	2.97	0.00	0
– end of the season (1 October 2024)	3.25	4.00	0.75	23
2.3 Water releases	14.20	14.83	0.63	4
including:				
– water releases into the river	10.21	10.22	0.01	0
– water intake	3.99	4.62	0.63	16
2.4 **Flow regulation:** recharge (+) or diversion (-) of flow	-6.00	-7.85	-1.85	31
TOTAL flow regulation by reservoirs: recharge (+), diversion (-) of flow	-10.03	-11.60	-1.57	16

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