INTERNATIONAL FUND FOR SAVING THE ARAL SEA

INTERSTATE COMMISSION FOR WATER COORDINATION OF CENTRAL ASIA

BULLETIN ICWC of Central Asia

February 2025

№ 1 (106)

Scientific-Information Center of Interstate Commission for Water Coordination of Central Asia

Interstate Commission for Water Coordination of Central Asia	**BULLETIN № 1 (106)**	February 2025

CONTENT

Minutes of the 88th meeting of the Interstate Commission for Water Coordination (ICWC) of the Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan and Republic of Uzbekistan

January 29, 2025 Dushanbe

Chairman:

Jamshed Sh. Shoimzoda	First Deputy Minister of Energy and Water Resources, Republic of Tajikistan

ICWC Members:

Nurjan M. Nurjigitov	Minister of Water Resources and Irrigation, Republic of Kazakhstan
Durdi M. Gendjiyev	Chairman of the State Committee for Water Management, Turkmenistan
Shavkat R. Khamraev	Minister of Water Management, Republic of Uzbekistan

ICWC Executive Bodies:

Umar A. Nazarov	Head, ICWC Secretariat
Makhmud Ya. Makhramov	Head, BWO Amu Darya
Odil A. Kholkhujaev	Head, BWO Syr Darya
Dinara R. Ziganshina	Director, Scientific-Information Center (SIC) of ICWC
Alisher M. Nazariy	Deputy Director, SIC ICWC
Farkhodjon N. Djabborov	Senior Officer, ICWC Secretariat

Invited:

Republic of Kazakhstan

Daniyar Ye. Sharip	Director, International Cooperation Department of the Ministry of Water Resources and Irrigation
Valikhan A. Turekhanov	Ambassador Extraordinary and Plenipotentiary of the Republic of Kazakhstan to the Republic of Tajikistan
Kazybek K. Bedebaev	Director, Turkistan Branch of the State Enterprise "Kazvodkhoz"
Bakhyt D. Jakhanov	Deputy Akim of Kyzylorda Region

Republic of Tajikistan

Daler A. Abdurazokzoda	Head of Central Water and Energy Policy Administration, Ministry of Energy and Water Resources
Rustam A. Abdulloyev	Head of Water and Energy Policy, Science and Technology Development Administration, Ministry of Energy and Water Resources
Muslikhiddin Kholikzoda	Head of Water Resources Administration, Ministry of Energy and Water Resources
Shafoat G. Nazifov	Head of Land Reclamation and Irrigation Basin Administration, Agency of Land Reclamation and Irrigation under the Government of Tajikistan

Turkmenistan

Aymyrat B. Gochmyradov	Ambassador of Turkmenistan to the Republic of Tajikistan
Yanov D. Paschiev	Head of Water Use Department, State Committee for Water Management
Saparmurat K. Chariev	Head of Digital Technology and Information Security Division, Water Use Department, State Committee for Water Management

Republic of Uzbekistan

Ilkhom U. Juraev	Director of the Center for Water Management

	Reforms, Ministry of Water Management
Asylbek M.Tursunaliyev	Senior officer, Transboundary Water Resources Department, Ministry of Water Management

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

Serik A. Bekmaganbetov	Deputy Chairman, EC IFAS

Agenda

1. The use of water withdrawal limits/quotas and operation regimes of reservoirs in the Syr Darya and Amu Darya River basins during the non-growing season 2024-2025
2. Progress on tasks arising from the summits of the Heads of IFAS Founder States.
3. Additional matters.
4. Agenda and venue of the regular 89th ICWC meeting.

Decision on the first item:

Take into consideration the reports by BWO Syr Darya and BWO Amu Darya on the use of water withdrawal limits and the operation regimes of reservoirs in the Syr Darya and Amu Darya River basins during the non-growing season 2024-2025.

Decision on the second item:

1. Acknowledge the work done by ICWC members and executive bodies for implementation of the proposals and initiatives put forward at the Summits of the Head of IFAS Founder States in Turkmenbashi (2018) and Dushanbe (2023). On the second item, Dinara Ziganshina, Director of SIC ICWC reported on the work undertaken by water management organizations and executive bodies of ICWC for implementation of the proposals and initiatives voiced at the Summits of the Head of IFAS Founder States in Turkmenbashi (2018) and Dushanbe (2023). The ICWC executive bodies were instructed to continue this

work.

2. ICWC members and executive bodies shall submit the updated information on fulfillment of the tasks arising from the IFAS summits at the next meetings.

3. ICWC members shall assist in organization of a regional forum on the sidelines of the High-Level International Conference on Glacier Preservation scheduled for May-June 2025 in Dushanbe. SIC ICWC and EC IFAS are tasked with mobilization of necessary funding, if possible.

Decision on the third item:

Facilitate the timely submission of official responses to the EC IFAS inquiry regarding the proposed option of the institutional structure for the improved IFAS and the new name "Organization for Cooperation of the Aral Sea Basin Countries" by February 15, 2025.

Decision on the fourth item:

1. Hold the regular 89th ICWC meeting in Tashkent, Uzbekistan in the second decade of April 2025.

2. The date of the regular ICWC meeting shall be agreed in working order.

3. Propose the following agenda for the 89th ICWC meeting:

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

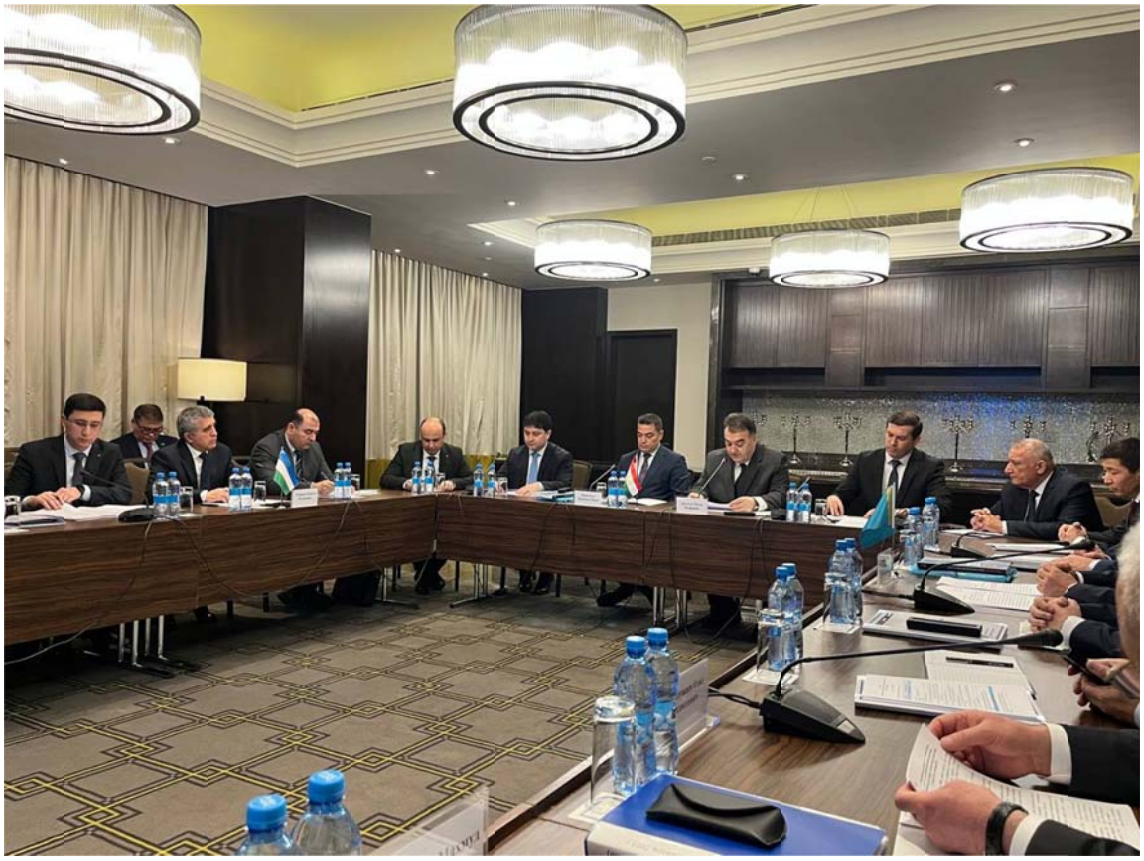
2) Approval of country water withdrawal limits and forecast operation regime of reservoir cascades in the Syr Darya and Amu Darya River basins for the growing season 2025.

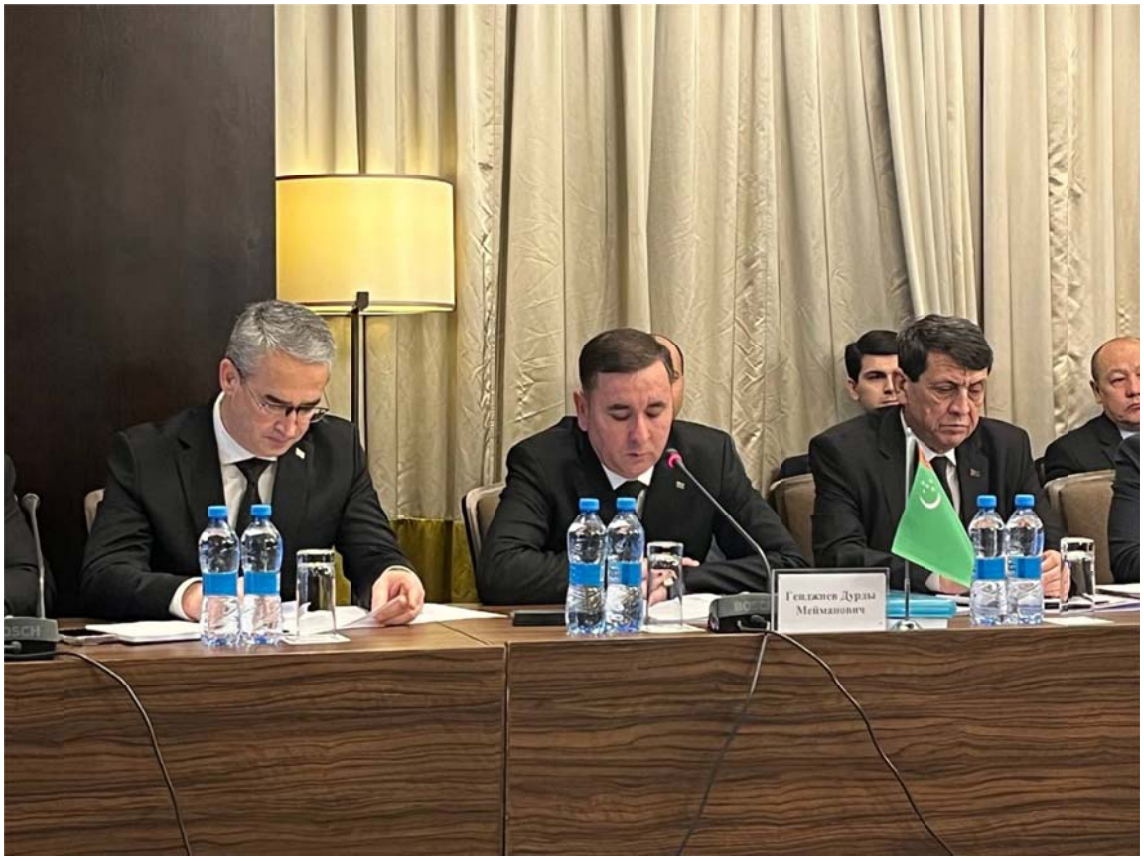
3) Progress on the fulfillment of tasks arising from the summits of the Heads of IFAS Founder States.

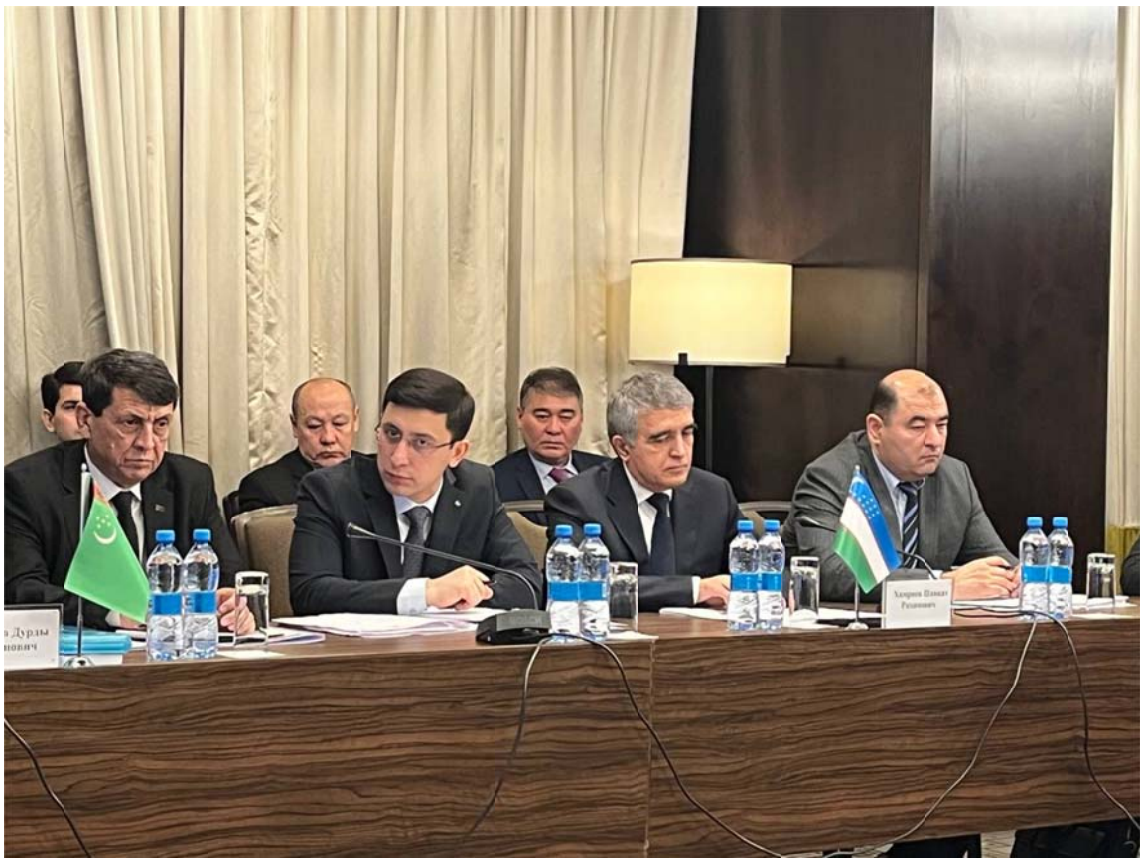
4) Additional matters.

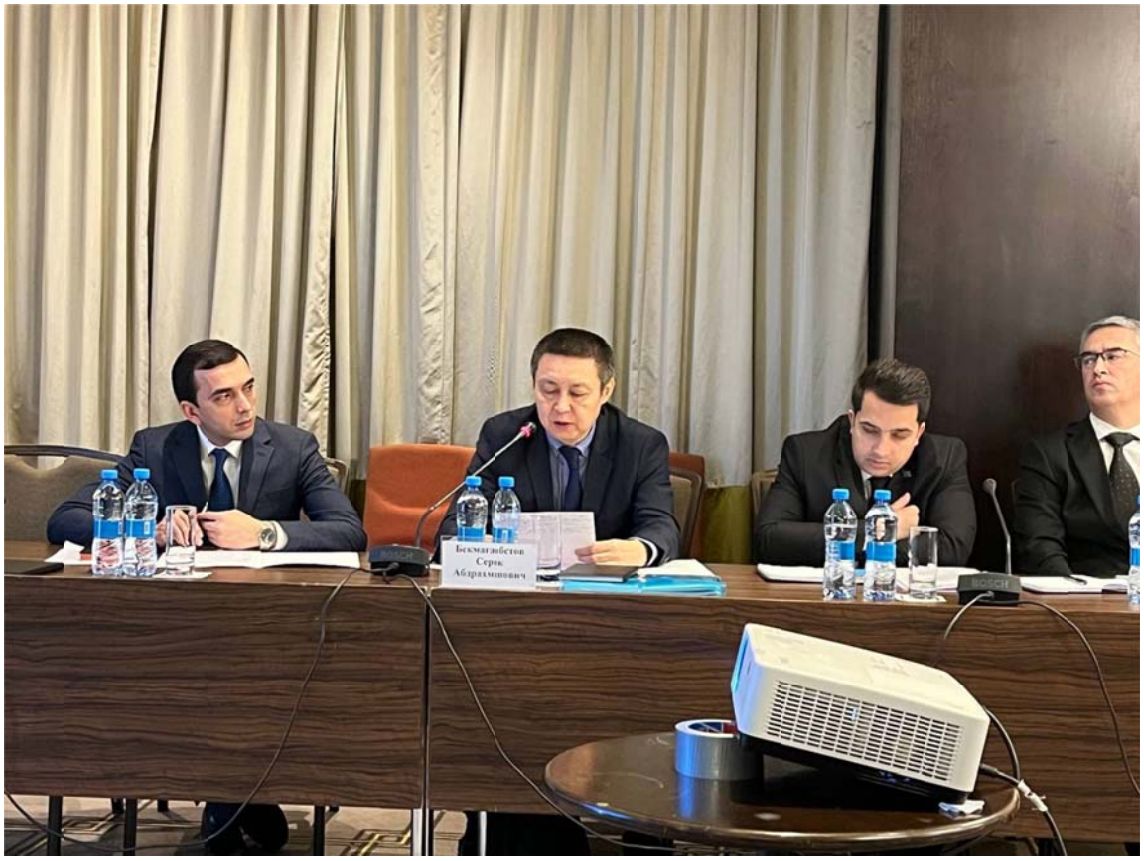
5) Agenda and venue of the regular 90th ICWC meeting.

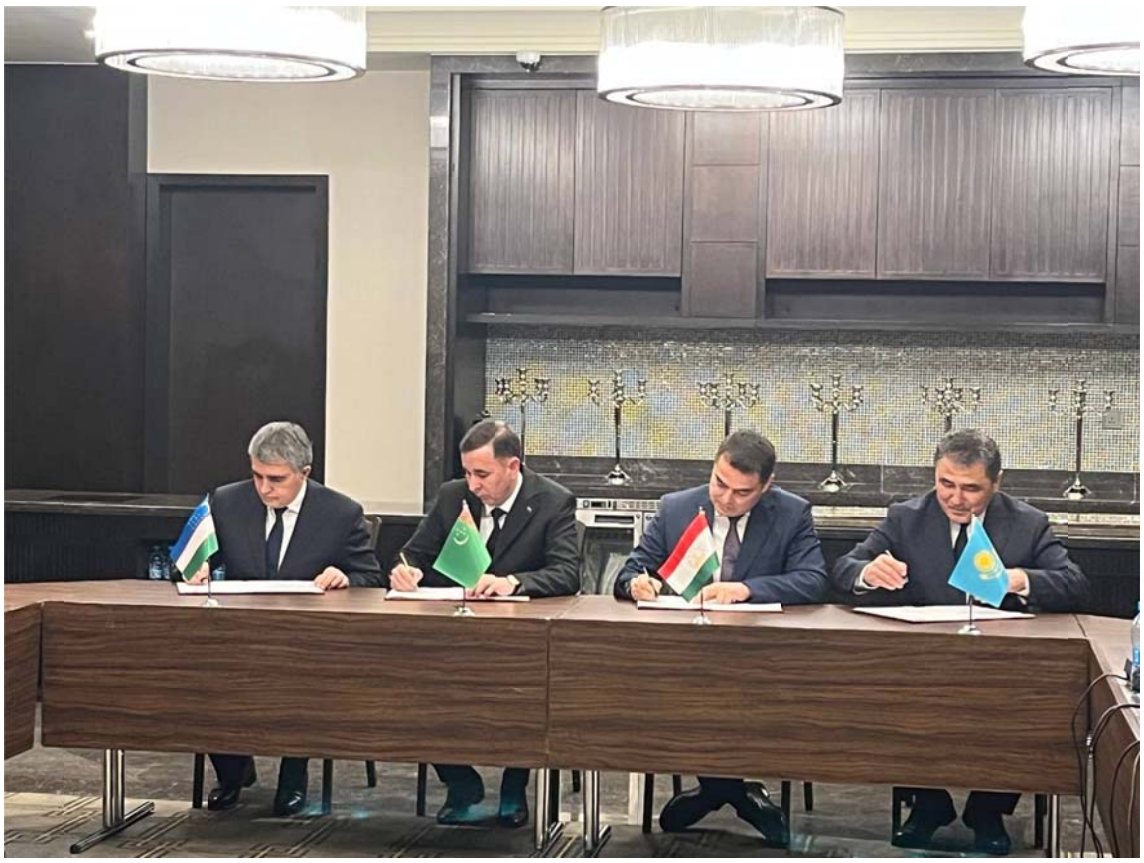
Republic of Kazakhstan	**N.M. Nurjigitov**
Kyrgyz Republic	
Republic of Tajikistan	**D.Sh. Shoimzoda**
Turkmenistan	**D.M. Gendjiev**
Republic of Uzbekistan	**Sh.R. Khamraev**

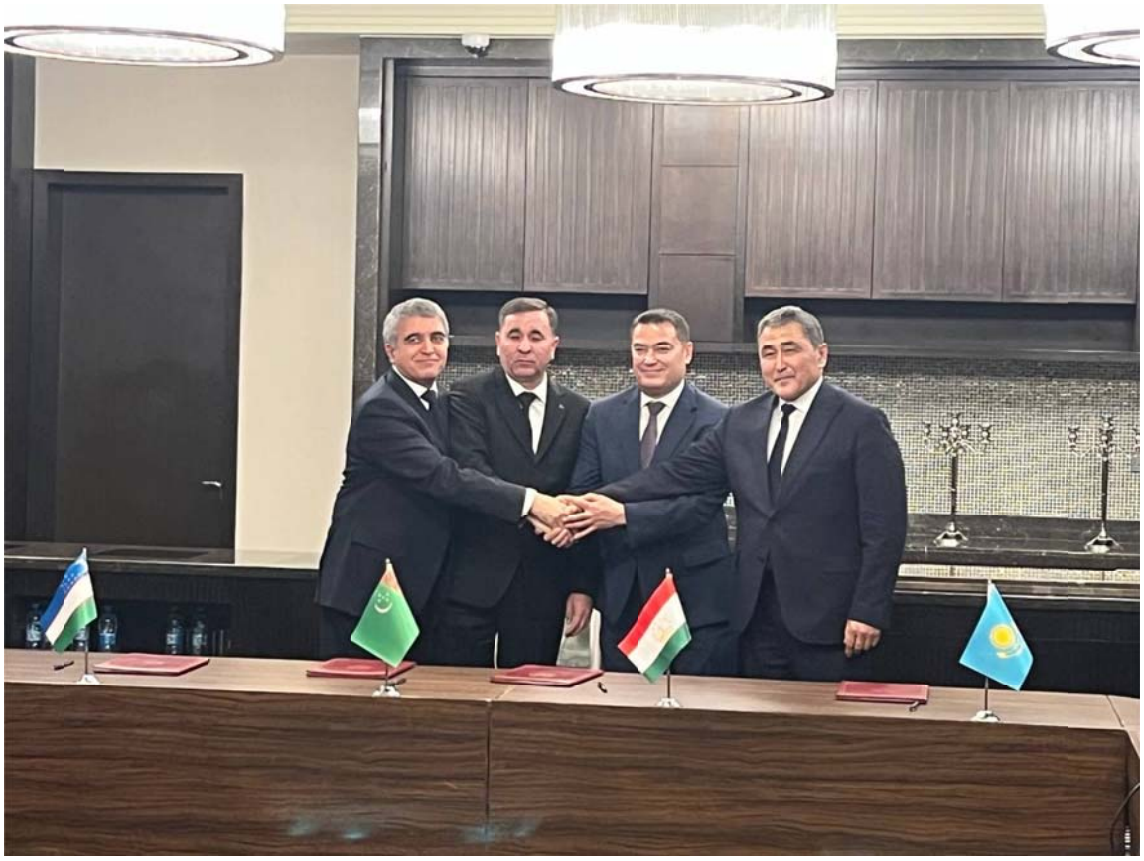


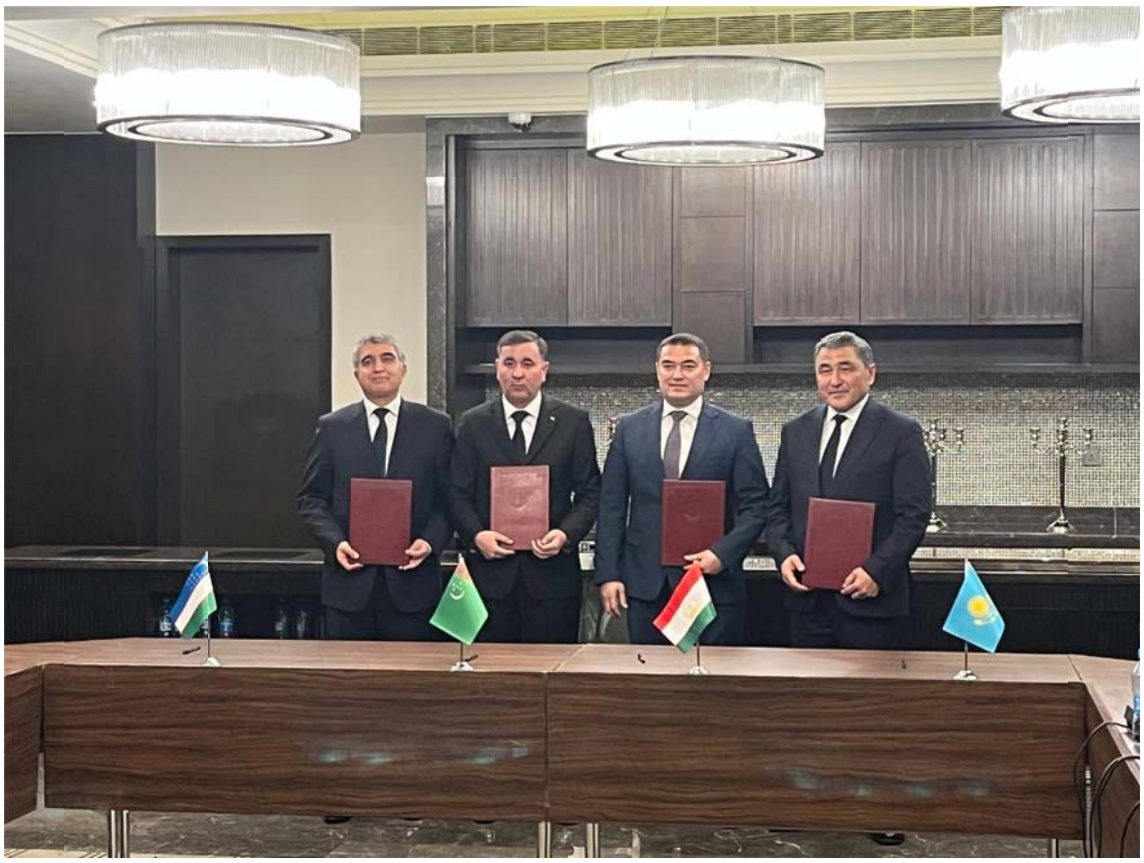

Генджиев Дурды
Мейманович




Исмагилбеков
Серик
Абдрахманович
BOSCH







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

Amu Darya River basin

As of January 20, 2025, the actual water availability for the non-growing season of 2024-2025 in the Amu Darya River basin at the nominal Kerki gauging station (upstream of water intake to Garagumdarya), which was calculated for natural flow of the Vaksh River with account of regulation by the Nurek Reservoir, amounted to 102.0% of the norm. For comparison, on the same date during the previous non-growing season, it was only 72.7% of the norm.

By December 16, 2024, the Tuyamuyun reservoir accumulated 5005 mcm of water. Based on this, in line with Protocol 266 of a technical meeting of the Commission on water allocation in the Amu Darya lower reaches, it was permitted to follow the operation regime of Tuyamuyun hydroscheme for winter conditions in case of increased inflow to the reservoir.

During the reporting non-growing season, the allocated country water withdrawal limits/quotas were used as follows:

97.6% of the total approved water withdrawal limit was used across the basin, and 7939.3 mcm were actually used at the cumulative water limit of 8131.7 mcm, including:

- Republic of Tajikistan: actually used 1690.27 mcm or 94.5 % of cumulative water limit.
- Turkmenistan: actually used 2977.8 mcm or 100.1 % of cumulative water limit.
- Republic of Uzbekistan: actually used 3271.27 mcm or 97.1% of cumulative water limit.

[1] Information on the first item of the 88th ICWC meeting's agenda

Water-user state	Cumulative, mcm as of 20.01.2025		
	Limit	Actual	%%
Republic of Tajikistan	1789.0	1690.27	94.5
Turkmenistan	2974.9	2977.80	100.1
Republic of Uzbekistan	3367.9	3271.27	97.1
Total	8131.7	7939.34	97.6

During the reporting period of the non-growing season 2024-2025, 99.0% of cumulative water limit was used downstream of nominal Kerki gauging station (upstream of water intake to Garagumdarya), including:

- Republic of Uzbekistan: actually used 3120.7 mcm or 98.0% of cumulative water limit.
- Turkmenistan: actually used 2977.8 mcm or 100.1% of cumulative water limit.

Water-user state	Cumulative, mcm as of 20.01.2025		
	Limit	Actual	%%
Downstream of nominal Kerki gauging station	6160.0	6098.5	99.0
Turkmenistan	2974.9	2977.8	100.1
Republic of Uzbekistan	3185.1	3120.7	98.0

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

Upper reaches – 1840.8 mcm or 93.4 % of cumulative water limit, including: Tajikistan – 1690.3 mcm or 94.5 % of cumulative water limit; Uzbekistan – 150.5 mcm или 82.3% of cumulative water limit.

Middle reaches – 4468.2 mcm or 98.1 % of cumulative water limit, including: Turkmenistan – 2667.7 mcm or 100.0 % of cumulative water limit; Uzbekistan – 1800.5 mcm or 95.5 % of cumulative water limit.

Lower reaches – 1630.4 mcm or 101.5 % of cumulative water limit, including: Turkmenistan – 310.1 mcm or 100.9 % of cumulative water limit; Uzbekistan – 1320.3 mcm or 101.6 of cumulative water limit.

Water-user state	Cumulative, mcm as of 20.01.2025		
	Limit	Actual	%%
Upper reaches	**1971.8**	**1840.8**	**93.4**
Republic of Tajikistan	1789.0	1690.3	94.5
Republic of Uzbekistan	182.8	150.5	82.3
Middle reaches	**4553.4**	**4468.2**	**98.1**
Turkmenistan	2667.5	2667.7	100.0
Republic of Uzbekistan	1885.9	1800.5	95.5
Lower reaches	**1606.5**	**1630.4**	**101.5**
Turkmenistan	307.3	310.1	100.9
Republic of Uzbekistan	1299.2	1320.3	101.6

It was planned to deliver 1050 mcm to the river delta and the Aral Sea for three months of the non-growing season. The actual water supply was 1045 mcm or 99.5 % of the plan.

Forecast operation regimes of the Nurek and Tuyamuyun reservoirs were drafted based on average water availability.

The inflow to the Nurek reservoir during the reporting period was expected to be 2564.6 mcm, while the actual inflow was 3013.2 mcm or 117.5 % of the forecast. Water releases from the reservoir were planned at 4506.1 mcm, and the actual water releases amounted to 4773.1 mcm or 105.9 % of the plan.

The water volume in the reservoir was planned to be 8443 mcm during the reporting period of the non-growing season 2024-2025, and the actual volume was 8568 mcm or 101.5 % of the plan.

The inflow to the Tuyamuyun reservoir was expected to be 3193.1 mcm during the reporting period, while the actual inflow was 4579.5 mcm or 143.4 % of the forecast. Water releases from the reservoir were planned at 2255.6 mcm, and the actual water releases amounted to 3556.0 mcm or 157.6 % of the plan.

Water volume in the reservoir was planned to be 4936 mcm during the reporting period of the non-growing season 2024-2025; the actual volume amounted to 5023 mcm or 101.8 % of the plan.

Item		Unit	Nurek reservoir	Tuyamuyun reservoir
Water volume: beginning of the season		mcm	10568	3999
Inflow to the reservoir	Forecast	mcm	2564.6	3193.1
	Actual	mcm	3013.2	4579.5
		%%	117.5	143.4
Water releases	Forecast	mcm	4506.1	2255.6
	Actual	mcm	4773.1	3556.0
		%%	105.9	157.6
Water volume: end of the season	Forecast	mcm	8443	4936
	Actual	mcm	8568	5023
		%%	101.5	101.8
Recharge (+), drawdown (-)	Forecast	mcm	-2124.6	937.5
	Actual	mcm	-2000.3	1023.5
		%%	94.1	109.2

Analysis of the use of water withdrawal limits/quotas in the Amu Darya River basin during the non-growing season 2024-2025, mcm

Item	Limits/quotas of water withdrawal for the non-growing season 2024-2025	Cumulative as of 20.01.2025		
		Limit	Actual	%%
Upper Darya Division (UDD) (Upper reaches)	**3311.0**	**1971.8**	**1840.8**	**93.4**
including:				
Tajikistan	2941.0	1789.0	1690.3	**94.5**
Uzbekistan	370.0	182.8	150.5	**82.3**
Water withdrawal from the Amu Darya at nominal Kerki g/s	**12480**	**6160**	**6098.5**	**99.0**
including:				
Turkmenistan	6500.0	2974.9	2977.8	100.1
Uzbekistan	5980.0	3185.1	3120.7	98.0
Middle Darya Division (MDD) (Middle reaches)	**8345**	**4553.4**	**4468.2**	**98.1**
including				
Turkmenistan	5100	2667.5	2667.7	**100.0**
Uzbekistan	3245	1885.9	1800.5	**95.5**
Lower reaches:	**4135**	**1606.51**	**1630.4**	**101.5**
including:				
Turkmenistan	1400.0	307.3	310.1	**100.9**
Uzbekistan	2735.0	1299.2	1320.3	**101.6**
In addition, sanitary flow, total	**800**	**525.1**	**525.1**	**100.0**
including Karakalpakstan	500	326.5	326.5	**100.0**
Dashoguz province	150	120	120.0	**100.0**
Khorezm province	150	78.6	78.6	**100.0**
Total in the basin:	**15791.0**	**8131.7**	**7939.3**	**97.6**
including				
Tajikistan	2941.0	1789.0	1690.27	**94.5**
Turkmenistan	6500.0	2974.9	2977.80	**100.1**
Uzbekistan	6350.0	3367.9	3271.27	**97.1**

Water supply to the river delta and the Aral Sea during the non-growing season 2024-2025, mcm

Item	October	November	December	January	February	March	Actual water supply from 01.10.24 to 31.12.24
From the Amu Darya at Samanbay g/s	131	245	321				697
Total water discharge from Dustlik and Suenli canal system	69	59	39				167
CDW	89	50	42				181
Total	289	354	402				1045
Cumulative	289	643	1045				

Actual and forecast operation regime of Nurek and Tuyamuyun reservoirs (October 2024 – March 2025)

Nurek reservoir	Unit	Actual			Forecast			TOTAL
		October	November	December	January	February	March	
Volume: beginning of the season	mcm	10568	10525	10314	9282	8159	7095	10568
Inflow to the reservoir	m^3/s	373	344	269	221	190	180	
	mcm	999	891	721	592	460	482	4145
Water releases from the reservoir	m^3/s	382	421	603	603	600	465	
	mcm	1022	1090	1616	1616	1452	1244	8039
Volume: end of the season	mcm	10525	10314	9282	8159	7095	6275	6275
Accumulation (+), drawdown (-)	mcm	-43	-210	-1033	-1123	-1064	-820	-4293
Tuyamuyun reservoir	Unit	Actual			Forecast			Total
		October	November	December	January	February	March	
Volume: beginning of the season	mcm	3999	4048	4560	5102	4982	4380	3999
Inflow to the reservoir	m^3/s	401	408	588	484	301	240	
	mcm	1073	1057	1574	1298	729	643	6373
Water releases from the reservoir	m^3/s	383	210	385	529	550	800	
	mcm	1025	545	1031	1418	1331	2142	7492
Volume: end of the season	mcm	4048	4560	5102	4982	4380	2880	2880
Accumulation (+), drawdown (-)	mcm	49	512	543	-120	-603	-1499	-1119

Syr Darya River Basin

I. Forecast of inflow

The forecast for the non-growing season 2024-2025 was received from UzHydromet on September 27, 2024.

Information on expected operation regime of the Toktogul reservoir was provided by the Coordination Dispatching Center (CDC) "Energy" on October 10, 2024.

The forecast operation regime of the Charvak reservoir was received from the SUE "National Dispatch Center" under the Ministry of Energy of the Republic of Uzbekistan, after consultation with the Uzbek Ministry of Water Management and JSC "UzbekHydroenergy".

The forecast operation regime of the Andijan reservoir was received from JSC "UzbekHydroenergy", after constultation with 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.

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

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

The total lateral inflow was expected to be 92% of the norm.

Overall, water availability was expected at the level of 94% of the norm in the Syr Darya River basin.

The forecast operation schedule of the Naryn-Syr Darya reservoir cascade for the non-growing season was taken into consideration at the 87th ICWC meeting and country water withdrawal limits/quotas for the Syr Darya River basin were approved.

Actual water management situation from 1.10.2024 to 10.01.2025 is characterized by the following:

II. Total Inflow (Table 1)

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

- **Norm**: 9,128 mcm
- **Forecast inflow** (according to UzHydromet): 8,552 mcm or 94% of the norm

- **Actual inflow**: 9,767 mcm, which is 1,215 mcm more or 114% of the forecast (107% of the norm).

III. Inflow to the upper reservoirs (Table 1)

The norm for inflow to the upper reservoirs of the Naryn-Syr Darya cascade is 3169 mcm. The **forecast** inflow was 3068 mcm or 97% of the norm.

The **actual** inflow to the upper reservoirs was 3773 mcm, which is by 705 mcm more or 123% of the forecast (119% of the norm):

- inflow to the Toktogul reservoir:

Norm: 1 billion 797 mcm

Forecast: 1 bln 836 mcm

Actual: 2 bln 306 mcm, which is 470 mcm more, or 126% of the forecast (128% of the norm).

- **inflow to the Andijan reservoir:**

Norm: 542 mcm

Forecast: 453 mcm

Actual: 508 mcm, which is 55 mcm more, or 112% of the forecast (94% of the norm).

- **Inflow to the Charvak reservoir:**

Norm: 830 mcm

Forecast: 779 mcm

Actual: 959 mcm, which is 180 mcm more, or 123% of the forecast (116% of the norm).

IV. Lateral inflow (Table 1)

Lateral inflow in the Syr Darya River basin from the Toktogul reservoir up to Shardara reservoir is as follows:

Norm: 5 959 mcm

Forecast (according to UzHydromet): 5 484 mcm, or 92% of the norm

Actual lateral inflow: 5 994 mcm, which is 510 mcm more, or 109% of the forecast (101% of the norm).

Table 1

Item	Non-growing season, mcm													
	October 1, 2024 – January 10, 2025							October 1, 2023 – January 10, 2024						
	norm	forecast	forecast/ norm (%)	actual	actual/ forecast (%)	Difference actual "-" forecast	actual/norm (%)	norm	forecast	forecast/ norm (%)	actual	actual/ forecast (%)	Difference actual "-" forecast	actual/norm (%)
Inflow to upper reservoirs														
Toktogul	1797	1836	102	2306	126	470	128	1797	1675	93	1865	111	190	104
Andijan	542	453	84	508	112	55	94	542	475	88	392	83	-83	72
Charvak	830	779	94	959	123	180	116	830	779	94	781	100	2	94
Total	**3169**	**3068**	97	**3773**	**123**	**705**	**119**	**3169**	**2929**	92	**3038**	104	**109**	96
Lateral inflow														
Toktogul – Uchkurgan	225	207	92	226	109	19	101	225	209	93	163	78	-46	72
Andijan– Uchtepe	1425	1151	81	1294	112	143	91	1425	1151	81	1132	98	-19	79
Uchkurgan, Uchtupe – Bakhri Tojik	2349	2265	96	2248	99	-17	96	2349	1929	82	2042	106	113	87
Bakhri Tojik – Shardara	1497	1425	95	1821	128	396	122	1497	1346	90	1453	108	107	97
Gazalkent- Chinaz	463	436	94	405	93	-31	88	463	436	94	372	85	-64	80

Item	Non-growing season, mcm													
	October 1, 2024 – January 10, 2025							October 1, 2023 – January 10, 2024						
	norm	forecast	forecast/ norm **(%)**	actual	actual/ forecast **(%)**	Difference actual "-" forecast	actual/norm **(%)**	norm	forecast	forecast/ norm **(%)**	actual	actual/ forecast **(%)**	Difference actual "-" forecast	actual/norm **(%)**
(excluding Ugam)														
Total	**5959**	**5484**	92	**5994**	**109**	510	**101**	**5959**	**5071**	85	**5162**	102	91	87
Grand total inflow	**9128**	**8552**	94	**9767**	**114**	1215	**107**	**9128**	**8000**	88	**8200**	102	200	90

Table 2

Item	Non-growing season, mcm October 1, 2024 – January 10, 2025				Non-growing season, mcm October 1, 2023 – January 10, 2024			
	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	5878	6925	118	1047	6161	5010	81	-1151
Inflow to the Shardara reservoir (Chinaz g/s-Syr Darya+Bozsu g/s+Keles g/s)	5129	7966	155	2837	5201	4182	80	-1019
Inflow to the Shardara reservoir (Kokbulak g/s +Keles g/s)	5129	7408	144	2279	5201	4208	81	-993
Water supply to the Aral Sea								
Water supply to the Aral sea	687	791	115	104	443	452	102	9

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

According to the forecast, **inflow to the Bakhri Tojik reservoir** was to be 5 878 mcm from October 1, 2024, to January 10, 2025. The actual inflow to the reservoir was 6 925 mcm, which is 1 047 mcm more than the forecast schedule.

Inflow to the Shardara reservoir was expected to be 5129 mcm. In fact, 7 966 mcm flowed into the reservoir according to UzHydromet's data (Chinaz g/s-Syr Darya + Bozsu g/s + Keles g/s), which is 2 837 mcm more than the forecast schedule. According to RSE "KazHydromet" (Kokbulak + Keles gauging stations), 7 408 mcm flowed into the reservoir, which is 2 279 mcm more than the forecast schedule.

Inflow to the Aral Sea and the Aral Sea region was expected to be 687 mcm, while the actual inflow, as recorded at the Karateren gauging station, was 791 mcm, which is 104 mcm more than the forecast schedule.

VI. Water releases from reservoirs (Table 3)

According to the **forecast operation schedule** of the Naryn - Syr Darya reservoir cascade, it was planned to discharge 13 838 mcm of water from reservoirs from October 1, 2024, to January 10, 2025.

The actual water releases from reservoirs amounted to 15 314 mcm, which is 1 476 mcm or 111% higher than the forecast:

- **Toktogul Reservoir**: 3 900 mcm - planned water releases, 4 482 mcm - actual water releases;
- **Andijan Reservoir**: 427 mcm - planned water releases, 340 mcm - actual water releases.
- **Charvak Reservoir**: 1 461 mcm - planned water releases, 1 537 mcm - actual water releases.
- **Bakhri Tojik Reservoir**: 4 577 mcm - planned water releases, 5 923 mcm - actual water releases.
- **Shardara Reservoir**: 3 473 mcm - planned water releases, 3 032 mcm - actual water releases.

Table 3

Reservoir	Water releases, mcm October 1, 2024 – January 10, 2025				Water releases, mcm October 1, 2023 – January 10, 2024			
	Operation schedule NSRC	Actual	Difference (actual "-" schedule)	Actual/schedule %	Operation schedule NSRC	Actual	Difference (actual "-" schedule)	Actual/ schedule %
Upper reservoirs								
Toktogul	3900	4482	582	115	4469	3431	-1038	77
Andijan	427	340	-87	80	495	325	-170	66
Charvak (discharge from Gazalkent HPP)	1461	1537	76	105	1369	1284	-85	94
TOTAL:	**5788**	**6359**	571	**110**	**6333**	**5040**	-1293	**80**
In-stream reservoirs								
Bakhri Tojik	4577	5923	1346	129	4702	3597	-1105	76
Shardara	3473	3032	-441	87	3039	1847	-1192	61
Total:	**8050**	**8955**	905	111	**7741**	**5444**	-2297	70
Grand Total:	**13838**	**15314**	1476	**111**	**14074**	**10484**	-3590	**74**

Table 4

Reservoir	Water volume in reservoirs, mcm					
	Actual by October 1, 2024	Scheduled by January 11, 2025	Actual by January 11, 2025	Difference (actual minus schedule)	Actual by January 11, 2024	Difference (actual 2025 minus actual 2024)
Upper reservoirs						
Toktogul	**13036**	10972	**10816**	-156	10171	645
Andijan	**987**	1013	**1141**	128	836	305
Charvak	**1805**	1145	**1248**	103	979	269
TOTAL:	**15828**	13130	**13205**	75	**11986**	1219
In-stream reservoirs						
Bakhri Tojik	**1716**	3249	**3286**	37	2929	357
Shardara	**1121**	2623	**4424**	1801	2547	1877
TOTAL:	**2837**	5872	**7710**	1838	**5476**	2234
GRAND TOTAL:	**18665**	19002	**20915**	1913	**17462**	3453

VII. Water storage in reservoirs (Table 4)

The actual water storage in reservoirs of the Naryn-Syr Darya reservoir cascade was 18 665 mcm at the **beginning** of the non-growing season (as of October 1, 2024).

As of January 11, 2025, the water storage was to be 19 002 mcm according to the forecast schedule**. In fact**, the water storage on that date was 20 915 mcm, which is 1 913 mcm more than the forecast value.

Water storage **in the upper reservoirs** was 15 828 mcm **at the beginning** of the non-growing season *(as of October 1).*

According to the forecast schedule, the water storage by **January 11, 2025**, was expected to be 13 130 mcm. In fact, 13 205 mcm of water were accumulated, which is 75 mcm more than the forecast schedule.

The water accumulation by reservoir:

Toktogul Reservoir – forecast: 10 972 mcm, actual: 10 816 mcm, 156 mcm less than the forecast; **Andijan reservoir** – forecast: 1013 mcm, actual: 1141 mcm, 128 mcm more than the forecast.

Charvak reservoir – forecast: 1 145 bcm, actual: 1248 mcm, 103 mcm more than the forecast.

Water storage in the **in-stream reservoirs** was 2 837 mcm **by the beginning** of the non-growing season (as of October 1)

According to the forecast schedule, the water volume in in-stream reservoirs was expected to be 5 872 mcm **by January 11, 2025,** while the actual volume was 7 710 mcm, which is 1 838 mcm more than the forecast schedule.

Water volume by reservoir:

Bakhri Tojik reservoir – forecast: 3249 mcm, actual: 3286 mcm, 37 mcm more than the forecast;

Shardara reservoir – forecast: 2 623 mcm, actual: 4 424 mcm, 1 801 mcm more than the forecast.

VIII. Water supply to countries (Table 5)

According to the approved limits and submitted requests from water users, water was delivered to user countries from October 1, 2024 to January 10, 2025 in the following amounts:

- Republic of Kazakhstan: limit - 103 mcm, actual – 56 mcm
- Kyrgyz Republic: limit - 29 mcm, actual – 42 mcm
- Republic of Tajikistan: limit - 168 mcm, actual – 42 mcm
- Republic of Uzbekistan: limit - 1 781 bcm, actual – 1 473 bcm.

The actual total water withdrawal by water user countries amounted to 1 613 bcm, given the water withdrawal limit of 2 081 bcm.

Table 5

Water-user country	Water withdrawal, mcm October 1, 2024 – January 10, 2025	
	Limit	Actual
Republic of Kazakhstan (Dustlik canal)	103	56
Kyrgyz Republic	29	42
Republic of Tajikistan	168	42
Republic of Uzbekistan	1781	1473
Total	**2081**	**1613**

Table 6 presents the forecast schedule for the operation regime of the Naryn-Syrdarya reservoir cascade during the non-growing season 2024–2025 (ICWC-87).

Table 7 compares the forecast schedule for the Naryn-Syrdarya reservoir cascade operation regime with the actual data from October 1, 2024, to January 10, 2025.

Table 6

Forecast operation schedule of the Naryn-SyrDarya reservoir cascade
October 1, 2024 – March 31, 2025

		October	November	December	January	February	March	Total mcm
Toktogul reservoir								
Inflow to 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	
(Akjar 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 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	
end of the season	mcm	1089	1190	2248	3416	4720	5175	

		October	November	December	January	February	March	Total mcm
Water releases from the reservoir	m^3/s	200	450	500	500	400	400	
	mcm	536	1166	1339	1339	968	1071	6420
Water supply 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	
(Disharge 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

Table 7

Forecast operation schedule of the Naryn – Syr Darya reservoir cascade
October 1, 2024 – January 10, 2025

		October		November		December		January (1st ten days)		Total, mcm	
		forecast	actual	forecast	actual	forecast	actual	forecast	actual	forecast	actual
Toktogul reservoir											
Inflow to the reservoir	m^3/s	250	321	212	288	179	195	162,11	209		
	mcm	669	859	549	745	478	521	140	181	1836	2306
Volume: beginning of the season	mcm	13036	13036	13102	13171	12692	12709	11467	11185		
end of the season	mcm	13102	13171	12692	12709	11467	11185	10972	10816		
Water releases from the reservoir	m^3/s	225	262	370	464	636	759	735	632		
	mcm	603	702	959	1203	1703	2032	635	546	3900	4482
Bakhri Tojik reservoir											
Inflow to the reservoir	m^3/s	340	403	621	858	941	1056	968	917		
(Akdjar g/s)	mcm	910	1079	1611	2225	2521	2829	836	792	5878	6925
Volume: beginning of the season	mcm	1716	1716	2390	2550	2936	3335	3170	3306		
end of the season	mcm	2390	2550	2936	3335	3170	3306	3249	3286		
Water releases from the reservoir	m^3/s	142	194	420	572	870	1166	900	922		
	mcm	381	520	1089	1483	2330	3124	778	797	4577	5923
Shardara reservoir											
Inflow to the reservoir	m^3/s	210	302	507	812	910	1504	945	1187		
	mcm	562	808	1314	2105	2437	4028	816	1026	5129	7966
Volume: beginning of the season	mcm	1121	1121	1089	1422	1190	2124	2248	4402		

		October		November		December		January (1st ten days)		Total, mcm	
		forecast	actual	forecast	actual	forecast	actual	forecast	actual	forecast	actual
end of the season	mcm	1089	1422	1190	2124	2248	4402	2623	4424		
Water releases from the reservoir	m^3/s	200	113	450	415	500	380	500	737		
	mcm	536	302	1166	1075	1339	1019	432	637	3473	3032
Water supply to the Aral Sea	m^3/s	50	52	70	96	100	115	120	112		
	mcm	134	140	181	248	268	307	104	97	687	791
Charvak reservoir											
Inflow to the reservoir	m^3/s	102	118	91	123	78	93	71	87		
	mcm	272	317	236	320	209	248	62	75	779	959
Volume: beginning of the season	mcm	1805	1805	1726	1750	1556	1678	1247	1342		
end of the season	mcm	1726	1750	1556	1678	1247	1342	1145	1248		
Water releases from the reservoir	m^3/s	139	139	157	169	193	209	190	191		
(Disharge from Gazalkent HPP)	mcm	373	372	406	439	518	560	164	165	1461	1537
Andijan reservoir											
Inflow to the reservoir	m^3/s	51	71	50	76	53	34	50	33		
	mcm	138	191	130	198	143	91	43	29	453	508
Volume: beginning of the season	mcm	987	987	955	994	961	1075	1013	1117		
end of the season	mcm	955	994	961	1075	1013	1117	1013	1141		
Water releases from the reservoir	m^3/s	63	70	48	42	34	15	50	5		
	mcm	170	187	124	109	90	40	43	4	427	340

* According to Uzhydromet (Chinaz g/s -Syr Darya + Bozsu g/s+ Keles g/s), the actual inflow to the Shardara reservoir was 7 966 mcm.

** According to Kazhydromet (Kokbulak g/s+Keles g/s), the actual inflow to the Shardara reservoir was 7 408 mcm.

Progress on implementation of the tasks arising from the summits of the Heads of IFAS founder-states[2]

(November 7, 2024 – January 29, 2025)

General information

The Summit of the Council of Heads of IFAS founder-states was held in the city of Turkmenbashi on August 24, 2018. The heads of states put forward proposals and a number of initiatives aimed at environmental, water and socioeconomic improvement in the Aral Sea basin and adopted a Joint Communique[3].

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 (since September 2023) were considered at 85th (November 1-2, 2023, Tashkent), 86th (April 12, 2024, Shymkent), and 87th (November 6, 2024, Ashgabat) ICWC meetings. The relevant decision of the 87th meeting reads as follows: "1. To acknowledge the efforts of members 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. Members and executive bodies of ICWC shall update on implementation of the tasks arising from the IFAS summits at subsequent meetings, putting particular emphasis on strengthening regional co-operation mechanisms".

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

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[2] Information on the second item of the 88th ICWC meeting's agenda

[3] "Starting from the 77th ICWC meeting (November 5-6, 2019), the implementation of these initiatives has been regularly discussed at subsequent ICWC meetings.

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

Efforts to enhance the institutional and legal framework of IFAS have been ongoing under the chairmanship of Kazakhstan (2024-2026). The 13th meeting of the Working Group (WG) on the institutional and legal improvement of IFAS was held and followed by a draft middle structure of the improved organization, along with the 2025 work plan of EC IFAS. This draft is expected to be agreed upon by the parties by February 15, 2025 (December 12-13, Almaty).

In Uzbekistan, a Working Group[4] on reviewing the IFAS's institutional structure continues functioning. An inventory of the constituent documents related to IFAS's establishment and an analysis of the performance of its various organizations were completed. Proposals have been developed on the improvement of activities of IFAS's working bodies, including those located in Uzbekistan (such as BWO Amu Darya, BWO Syr Darya and SIC ICWC). Additionally, efforts are underway to enhance staff qualifications and strengthen the material and technical base of these subdivisions. Proposals are also prepared on coordination of activities of IFAS's working bodies and improvement of their overall efficiency.

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. Issues related to implementation of pilot projects in the Aral Sea basin countries corresponding to the goals and objectives of ASBP-4 were discussed on the margins of the 'One Water' Summit by EC IFAS Chairman A. Orazbay and Deputy Director General of the French Agency for Development (AFD) Bertand Walckenaer (December 3, Riyadh, Saudi Arabia). ED IFAS in RK also works with international partners, local executive bodies, non-governmental and community organizations, scientific communities and academia to implement projects under ASBP-4.

In Uzbekistan, joint projects and programs on sustainable socio-

[4] Formed and approved by the Cabinet of Ministers of the Republic of Uzbekistan on October 16, 2023, №04/1-2259 for the implementation of the 'Plan of Practical Actions ("Road Map") for initiatives put forward by the President of the Republic of Uzbekistan at the meeting of Heads of State (September 15, 2023, Dushanbe).

economic development of the Aral Sea region are developed and implemented with the support of international partners.

SIC ICWC together with EC IFAS is preparing for AFD funding a project from the list of ASBP-4 projects titled “Hydro-module zoning of the Syr Darya River basin using RS tools and satellite mapping technologies to adjust local crop water requirements and irrigation regimes”.

3. Water conservation and climate change adaptation

As part of the *Regional Climate Change Adaptation Strategy for Central Asia* (RCCAS CA) approved by the **Central Asian countries** a series of national and regional dialogues[5] were held to discuss key issues related to the joint implementation of the Strategy. The 3rd meeting of the Regional Working Group[6] (RWG) took place on November 29 in Bishkek, where participants discussed and agreed on further steps for implementation.

Central Asian countries presented proposals and initiatives for overcoming climate challenges at the UN Climate Change Conference (COP29) held in Baku, Azerbaijan (November 11-12).

Kazakhstan is currently implementing the **Concept for the Development of the Water Resources Management System for 2024-2030** (PP RK No 66 of February 5, 2024). A new Water Code has been drafted and first hearings were held in the Majilis of the Parliament. Additionally, the **Comprehensive Water Sector Development Plan until 2028** (No 694 of August 28, 2024) and the **Road Map for Water Saving until 2026** have been approved. The documents are designed to modernize the water sector, introduce water-saving technologies, and enhance climate resilience. The **Coordination Council of Partners for Water Sector Development** in the country has also commenced its work. UNDP in collaboration with the Ministry of Water Resources and Irrigation presented the **Water Partnership Initiative for 2024-2030.** This initiative focuses on four key areas: (1) development of a water information system, (2) modernization of water infrastructure to address climate challenges, (3) implementation of up-to-date irrigation systems, and (4) fostering transboundary water cooperation. Water-saving technologies are expected to cover 300 thousand ha of land.

In 2024, the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan (MWRI RK) launched 137 water development projects on across the country, along with the development of 201 design and estimate

[5] Organized by the Collective Leadership Institute (CLI) with the support of GIZ.
[6] With the support of the GIZ Green Central Asia Programme.

documentation. Efforts are underway to rehabilitate and reclaim over 700 thousand ha of irrigated land and construct and reconstruct approximately 7 000 km of canals.

According to MWRI RK, **in 2024, water supply to the North Aral Sea** has been increased by 400 mcm compared to 2023, with 200 mcm of this increase resulting from the implementation of water-saving technologies in Kyzylorda province.

On the sidelines of COP29, the Government of Kazakhstan and the Islamic Development Bank (IDB) signed a loan agreement for $1.15 bln to support the project titled "Development of Climate Resilient Water Resources" (November 13). The first phase of the project will involve the construction of four new reservoirs, the reconstruction of four existing reservoirs, and the overhaul of one reservoir, as well as the reconstruction and overhaul of 115 irrigation canals. Construction works will take place across all provinces of Kazakhstan, including the Aral Sea region.

Tajikistan has adopted the "National Water Strategy of the Republic of Tajikistan for the period up to 2040" (PPRT No 627 of November 29, 2024). The strategy aims to improve water legislation, introduce water-saving technologies, modernize infrastructure, and enhance the safety of hydraulic facilities.

In his speech at the opening ceremony of the Water Pavilion for Climate[7] (November 12, Baku), the **President of the Republic of Tajikistan** E. Rahmon emphasized that effective water management and use are key to addressing climate change. On Tajikistan's initiative, **2025** has been declared the **"Year of Glaciers' Preservation**". In line with a UN resolution, the **International Trust Glaciers' Preservation Fund** has been established, and a High-Level Conference on Glacier Preservation will be held in Dushanbe in May 2025.

In **Turkmenistan,** the establishment of a **UN Regional Center for Climate Change Technologies** in Central Asia[8] was discussed at the third meeting of the Turkmenistan-UN Strategic Advisory Council (December 6, Ministry for Foreign Affairs of Turkmenistan).

Uzbekistan has developed the **first National Framework for Hydrometeorological and Climate Services** (NFCS), a strategic initiative designed to enhance resilience to climate change and natural phenomena by improving access to climate data, modernizing the UzHydromet infrastructure,

[7] 29th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP29).

[8] For the concept of the establishment of the Centre, see https://unfccc.int/sites/default/files/resource/Turkmenistan%27s_proposal_on_technology_center_for_COP%2029.pdf

and introducing innovative methods of information transmission. Additionally, the **National Programme on Adaptation of Agriculture to Climate Change and Mitigation of its Negative Impact on Climate** was approved (PP RUz No. 233 of June 24, 2024).

SIC ICWC in partnership with BWO Amu Darya and BWO Syr Darya carries out ten-day monitoring of water balance in the Amu Darya and Syr Darya River basins[9]. SIC ICWC presented at two thematic sessions of COP29 (November 11-12, Baku): (1) “Sustainable water resources: technologies and innovations”, organized by the Ministry of Water Management of Uzbekistan (November 18, online); (2) “One World – One Climate: Uniting Efforts on Transboundary Adaptation”, organized by the Strategic Initiative Agency of the Russian Federation (November 21, online).

On the sidelines of COP29, **EC IFAS** hosted a side event titled "Central Asia on the Way to Improving the Efficiency of Transboundary Water Management in the context of the Climate Impact in the Aral Sea Basin."

4. Measures to address the consequences of the Aral Sea disaster

In Kazakhstan, the issues of socio-economic development in the Aral Sea region are addressed through the Action Plan for the implementation of the Concept for the Transition of the Republic of Kazakhstan to a "Green Economy" for 2024-2030, the Kazakhstan’s Water Sector Development Concept for 2024-2030, and the “Ecologically Oriented Development in the Aral Sea Region” (ECO ARAL). Every year, efforts are made to establish phyto-reclamation plantations over an area of 250,000 ha. Additionally, work is ongoing to expand the area of saxaul plantations on the dried bed of the Aral Sea, with the goal of reaching 1 to 1.1 Mha by 2025.

Best practices for expanding afforestation areas on the dried seabed and sustainable solutions to mitigate the consequences of the sea drying up were discussed at the Conference on Ecosystem Restoration on the Dried Aral Seabed[10] (November 20, Almaty). In December 2024, saxaul was sown on over 12,000 ha, and additional 108,000 ha are planned to be sown in January-February 2025.[11]

In the course Kazakhstan's chairmanship in IFAS, it is planned to

[9] Analytical reports are published in the sections "Water Management Situation in the Amu Darya Basin," "Water Management Situation in the Syr Darya Basin," and in the weekly newsletter "Water Sector, Irrigation, and Ecology in EECCA Countries," which is disseminated to 77 recipients.
[10] As part of USAID project on ecosystem restoration of the dried Aral Sea bed, ERAS II (2022-2025).
[11] Under the agreement between the Ministry of Ecology and Natural Resources of the Republic of Kazakhstan (RK) and KATCO.

implement North Aral Sea Development and Revitalization Project (funded by the World Bank and the Government of Kazakhstan). This project will cover the Kazakh part of the Aral Sea region and the territory of Kyzylorda province, with the ultimate goal of filling the Saryshyganak Bay.

As of January 21, 2025, the volume of the Northern Aral Sea is 22.3 bln m^3, with the total inflow of 2.6 km^3 to the sea in 2024.

The project "Preservation of the Kokaral Dam and Restoration of the Syr Darya River Delta in the Aralsk District of Kyzylorda Province" is also ongoing, and the feasibility study for the North Aral Sea Development and Revitalization Project is under development. The project includes the construction of a dam, which will allow for the accumulation of up to 5 km^3 of water near the town of Aralsk, covering 1,000 km^2 of the dried Aral Sea bed with water. This will help to eliminate the dust and salt transfer from the seabed.

Kazakhstan ratified the Agreement[12] between the Government of the **Republic of Kazakhstan** and the Government of the **Republic of Uzbekistan** on Cooperation in the Field of Ecology and Environmental Protection (ZRK No 134-VIII of 07.11.2024). The agreement aims, among other things, to implement joint measures for environmental improvement in the Aral Sea basin and develop a procedure for the exchange of information on the status of the environment in the border areas.

Turkmenistan continues to implement the **National Programme of Turkmenistan for the Aral Sea for 2021-2025**, as well as the project Conservation and sustainable management of land resources and high nature value ecosystems in the Aral Sea basin for multiple benefits (UNDP/GEF).

The assessment of current progress and identification of new opportunities for strengthening regional cooperation in the area of water and natural disasters in the Aral Sea basin, based on the **UN Special Programme for the Aral Sea basin** (ESCAP resolution E/ESCAP/RES/79/8 "Consideration of the modalities for the establishment of the United Nations special programme for the Aral Sea basin" / UN SPAS[13]), was discussed during the ESCAP Regional Consultative Meeting (31 November 31-December 1, Ashgabat). The participants discussed the modalities, feasibility, and formats for establishment of the Special Programme and agreed on the next steps. The results will be presented at the 81st session of ESCAP (May 21-25, Bangkok).

Uzbekistan has declared 2025 the Year of Environmental Protection and Green Economy. The country continues implementing the nation-wide

[12] The agreement was signed in Tashkent on December 22, 2022.
[13] May 15-19, 2023, Bangkok, Thailand, https://www.unescap.org/news/asia-pacific-countries-adopt-10-un-resolutions-reaffirming-commitments-protect-planet-and-its

program "Yashil Makon,"[14] which aims to achieve 30% greening of urban and rural areas by 2030. Currently, this indicator stands at 12%, and the area of green cover in the Aral Sea region has exceeded 2 Mha. A platform for monitoring the environmental situation in deserts is under development in collaboration with the Uzbekcosmos Agency.

The following projects are ongoing: (1) “Conservation and sustainable management of lakes, wetlands and riparian corridors as pillars of a sustainable and land degradation neutral Aral Sea basin landscape supporting sustainable livelihoods” (Aral wetlands)[15]. This project aims to address the corresponding drivers of land, water degradation and biodiversity decline, which are directly linked to the diminishment and loss of lakes, wetlands and riparian biodiversity in this arid landscape; (2) “Environmental restoration of the Aral Sea II (ERAS-II)”(USAID): a meeting of the Uzbek-Kazakh working group was held to develop a bilateral ‘Roadmap’ defining the main strategic areas and potential actions on the theme ‘Combating Drought and Sandstorms on the Coast of the Island’ (October 19); (3) My Garden in the Aral Sea; (4) Green rehabilitation of the Republic of Karakalpakstan to eliminate the consequences of the Aral Sea crisis (KOICA/GGGI); (5) "Business Incubator for 'Green' Start-ups – Climate Smart".

SIC ICWC continues working on the: (1) assessment of inflow from the Amu Darya River and collecting drains; (2) RS-based assessment of water surface, wetlands and dried areas of the Large and Small/Northern Aral Sea, as well as water bodies of the Aral Sea basin (www.cawater-info.net/aral/data/monitoring_amu.htm); (3) project ”Adaptation of a modern system for water and land resources monitoring and water balance (water requirement) modeling in the conditions of the Aral Sea region with a view of combating salinization and increasing land productivity” aimed at better water management in the Aral Sea region.

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

In Kazakhstan, a key focus of the water sector reform is the promotion of digital technologies for water accounting, management, and forecasting. Work is currently underway to digitize 3,500 km of irrigation networks across

[14] 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, June 17, 2023, New York.

[15] Financed by GEF, with execution by UNDP and the State Committee on Ecology and Environmental Protection.

the country. Since 2024, a project has been implemented to reconstruct gauging stations and install an automated water accounting system along five canals stretching to 231.95 km in total. Additionally, design and estimate documentation is developed for the automation of 16 main and inter-farm canals in Kyzylorda province. The implementation timeframe for these projects is from 2025 to 2027, and the total length of the canals to be automated will exceed 2,600 km. It is planned to automate canals in Turkistan province in 2025-2027. Currently, the design and estimate documentation is updated to account for the increased number of canals to be automated.

The RSI "RMC Kazagromeliovodkhoz" has been reorganized into the non-profit joint-stock company "Information-Analytical Centre for Water Resources," which will focus on water monitoring. The Ministry has also begun addressing violations in water management, with basin inspection divisions established at each provincial center across the republic. In 2025, the **National Water Information System** is set to launch. This Information System is to ensure real-time monitoring of water bodies and forecasting of floods and droughts.

Kazakhstan and Uzbekistan have approved the Terms of Reference (ToR) for the automation of gauging stations along the Syr Darya River[16] and are currently in negotiations with international financing institutions. The overall ToR for the project is developed by GIZ. In the future, it is planned to automate all key gauging stations to ensure the transparency of water accounting.

In Tajikistan and Uzbekistan, the automation of the "Patar" and "Sarvak" gauging stations on the interstate Big Fergana and North Fergana canals has been successfully completed. In the near future, it is planned to automate the Akjar and Kyzylkishlak gauging stations. This will help to expand the coverage by digital technologies and improve the accuracy of water accounting along transboundary watercourses.

In Turkmenistan, as part of the "Programme of Socio-Economic Development of the President of Turkmenistan for 2019-2025," the efforts for water saving and search for additional water reserves are continued. An automated water-accounting system has been put into operation on the bank of the Karakum Canal for sustainable hydro resource management.

The Ministry of Water Management of Uzbekistan[17] works on concreting canals and ditches, improving pump efficiency, and promoting water-saving technologies (WST) and digitalization. In 2024, WST was implemented on 326,000 ha, with an additional coverage of 500,000 ha planned for 2025. At

[16] Earlier, the countries identified 10 sites where automated water metering systems will be installed.
[17] On the initiative of the President of Uzbekistan, 2024 has been declared the year of canal concreting, and 2025 will be the year to improve the efficiency of pumping stations in the water sector.

present, "Smart Water" systems have been installed at 12,988 water metering stations of reservoirs and irrigation systems, while Diver systems have been installed in 8,894 wells to monitor groundwater and soil salinity. Water control devices have been installed at 1,739 pumping stations. 80 large water infrastructure facilities have now automated control. A Centre for Digitalization of the Water Sector is being established at the Ministry, and a unified information system of water use and metering will be launched.

SIC ICWC in partnership with BWO Amu Darya made control flow measurements at the main gauging stations and canals in the Amu Darya middle reaches. BWO Amu Darya was provided with methodological, calculation, and information resources to calculate river water balance and its components within the Kelif–Darganata reach, along with recommendations on addressing river water imbalances. Assistance was also provided in drafting recommendations for effective water allocation in the context of climate change in the Naryn and Karadarya River basins[18].

6. Development of an integrated and mutually beneficial mechanism for water and energy co-operation in Central Asia

Kazakhstan continues working on a mechanism of water-energy cooperation in Central Asia, aiming at sound use of water and energy resources in the Aral Sea basin.

In Uzbekistan, the work towards water-energy cooperation is ongoing through the strengthening of regional ties and coordination of actions. Platforms for data exchange on water and energy resources are established and agreements on transboundary water sharing are signed.

At the 3rd meeting of the **Regional Working Group on mutually beneficial water and energy mechanism** as part of the Green Central Asia Initiative, organized by GIZ, OECD, and SIC ICWC (December 10, Tashkent), the Central Asian countries and development partners presented their efforts in this direction. **SIC ICWC** shared approaches for improving the institutional and financial mechanisms of water-energy cooperation in Central Asia[19].

[18] as part of the EU We-ACT project

[19] as part of the Regional mechanisms for low-carbon, climate resilient transformation of the energy-water-land Nexus in Central Asia"/IKI project.

7. Regional cooperation and water diplomacy

Kazakhstan jointly with France organized the 'One Water Summit' on the sidelines of the 16th session of the Conference of the Parties to the UN Convention to Combat Desertification. President K.-J. Tokayev emphasized that "…water security calls for the development of multilateral dialogue based on the One Water principle. Kazakhstan is ready to contribute to collective efforts to strengthen global water management" (December 3, Riyadh). During the Summit, the MWRI of Kazakhstan and the World Bank signed a memorandum of understanding to preserve the North Aral Sea and improve the environmental status in the Aral Sea area.

Kazakhstan continues advancing actively the water diplomacy. During its chairmanship in IFAS, about 35 meetings were held on transboundary rivers, including with the Central Asian countries. Agreements were reached with **Kyrgyzstan and Uzbekistan** on water delivery to the country through the transboundary rivers Shu, Talas, and Syr Darya.

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

At the initiative of **Turkmenistan**, the UN General Assembly adopted the Resolution '2025 – the **International Year of Peace and Trust**'.[20] Several important initiatives in **water diplomacy** have been proposed and included the establishment of the UN Regional Council on Water Use in Central Asia, with its headquarters in Ashgabat.[21] Additionally, Turkmenistan is promoting the initiative to accelerate the adoption of **UN Conventions on the Amu Darya and Syr Darya rivers.**

The Diplomatic Academy at the UIED of **Uzbekistan** and the Diplomatic Academy of the Ministry of Foreign Affairs of the **Kyrgyz Republic** organized an international roundtable titled 'Water Law Development in Central Asia.' The event aimed to share experiences and strengthen cooperation between the countries in water law and diplomacy (November 19, online).

During the expert dialogue on water scarcity in Central Asia (November 28, Berlin, Friedrich Ebert Foundation headquarters), **representative of the Institute for Strategic and Interregional Studies under the President of the Republic of Uzbekistan** noted that **Central Asia is transforming into a water-climate diplomacy hub,** actively engaging in the global dialogue on climate change. Specifically, from 2025 to 2028, five major forums on water and climate will be held in the region under the auspices of the UN. Regional cooperation

[20] 86 countries are co-authors
[21] proposed at the One Water Summit.

and water diplomacy play a crucial role in preventing and resolving water-related conflicts. Regular meetings and consultations are held to strengthen trust and jointly address environmental challenges.

SIC ICWC continues its work as: a member of the Board of Governors of the World Water Council, the International Scientific Committee of the XIX IWRA World Water Congress (December 1-5, 2025, Marrakech) and the Organizing Committee of the III International Conference "Eurasia Lakes: Problems and Solutions" (May 20-23 2025, Kazan); a Vice-Chair of the Implementation Committee of the Water Convention. SIC ICWC maintains co-operation with UNECE, ICID, OECD, UNESCO, ADB, EECCA NWO, SDC, EDB, GIZ and other partners; new partnerships have been established with WB, University of Manchester, UNEP, FAO, Korea Rural Community Corporation (KRC), University of Tokyo, Federal State Budgetary Educational Institution of Higher Education 'All-Russian Academy of Foreign Trade at the Ministry of Economic Development of the Russian Federation'. In the course of the year, SIC staff presented more than 60 reports at various events.

8. Capacity-building and scientific cooperation

In 2024, **Kazakhstan** made an important step in the development of the water sector by establishing new scientific and educational institutions. The Kazakh National University of Water Resources and Irrigation was founded. In 2025, a new discipline 'hydroecology' will be included in the curricula. The Taraz Regional University and the National Research University "TIIIAME" signed an agreement on a joint double-diploma program. Water disciplines were also included in the 'Bolashak/Future' program, enabling students to study abroad. More than 450 water employees participated in vocational training.

Turkmenistan approved the Strategy for the Development of Science for 2024-2052, along with the Action Plan for 2024-2028 (Decree of the President of Turkmenistan of 24.09.2924).

In Uzbekistan, Schools of Water Workers[22] are actively functioning in all regions of the country to build capacities and maintain scientific cooperation. During the first stage, more than **61 000 farmers,** farm managers, and irrigators from 155 districts of the republic got training. 13 **Schools of Water Workers** established in the Republic of Karakalpakstan and other provinces engaged 15 teachers from Turkey. In the second stage, more than 200 employees from water-saving equipment manufacturing companies participated in the training.

[22] Established in May 2023 on the initiative of the President of Uzbekistan to improve the water use culture and promote water-saving technologies.

SIC ICWC and its partners[23] work on strengthening and potentially integrating activities of the ICWC Regional Training Centre and the EECCA Expert Platform on Water Security, Sustainable Development, and Future Studies to enhance the capacity of practitioners, including increased **representation of youth and women**. Efforts are underway to assess the Central Asia's water heritage to recognize its value for water management in the context of current and future challenges. At the meeting of the Expert Platform (November 9, Tashkent), it was proposed to develop the thematic area 'Water and Heritage in Central Asia' as the main research focus for 2025.

Five training seminars were organized in 2024 jointly with partners. A Training Manual for Trainers titled "Integration of Adaptation to Climate Change into Water Planning in Turkmenistan" was published. Additionally, lectures were delivered at several universities in Central Asian countries and at the 'School of Water Workers' under the Ministry of Water Management of Uzbekistan.

[23] As part of the Regional mechanisms for low-carbon, climate resilient transformation of the energy-water-land Nexus in Central Asia"/IKI project.

Regional events

Events dedicated to the launch of the International year of glaciers' preservation

The official launch of the International Year of Glaciers' Preservation took place on January 21, 2025 at the World Meteorological Service (WMO).

The High-Level Plenary Opening was co-organized by WMO and UNESCO with the support of Tajikistan. Over 50 local side events were conducted as part of the global campaign as well.

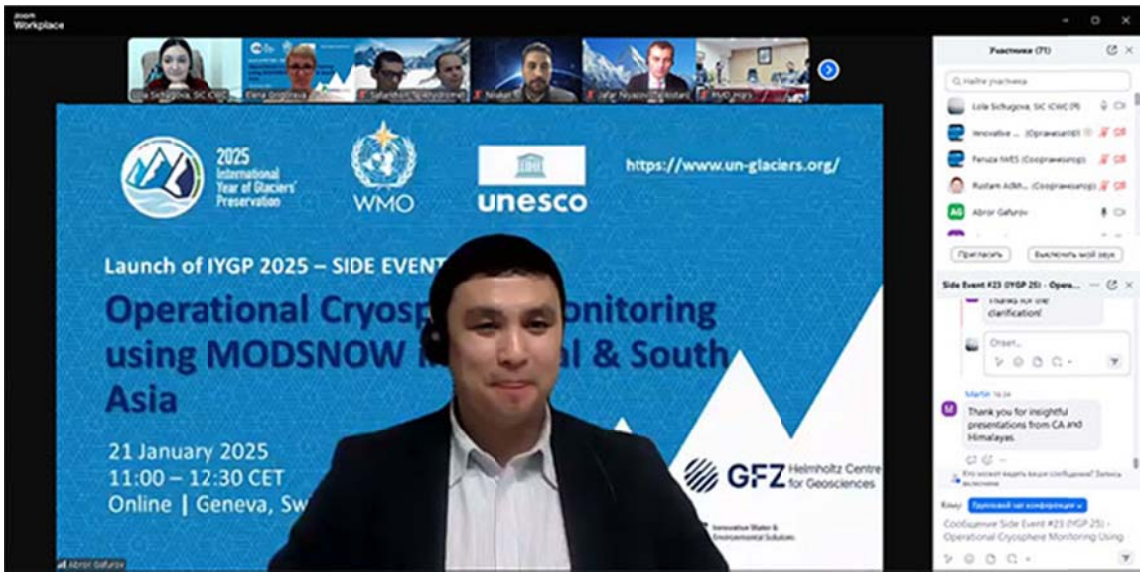
The International Year of Glaciers' Preservation highlights the challenges posed to all countries by a shrinking glacier and global cryosphere. By marking the International Year of Glaciers' Preservation, the global community will both recognize the importance of glaciers and commit to taking the urgent steps needed to preserve them.

In conjunction with this high-level launch, the online side event "Operational Cryosphere Monitoring Using MODSNOW in Central & South Asia" featured leading experts and scientists from Central and South Asia who presented:

- An overview of MODSNOW and its capabilities.
- Practical use cases of MODSNOW in operational cryosphere monitoring and hydrological forecasting across the region.

Lola Sichugova, Islom Ruziev, Anatoliy Sorokin and Gulnoza Khamdamova participated in this side event on behalf of SIC ICWC.

Ms. Sichugova made a presentation “Forecast of water content in the Vakhsh and Naryn rivers for the growing season using MODSNOW”. To improve the reliability of flow forecasts and minimize deviations between actual and forecast data, SIC ICWC proposed to improve the methodology by including a snow cover factor for the flow formation zones. This resulted in hydrological forecast models using two major predictors of snow cover and flow of water. These predictors make forecasts more reliable as they reflect major processes contributing to runoff in mountain catchments. Such an approach enables operational and reliable forecasts of river runoff in the context of complex topography and climate change.



The presented reports highlighted the importance of application of advanced RS-based tools in the region, which is highly dependent on cryosphere

for formation of its water resources. The participants also discussed ways for the improvement of MODSNOW and its integration with other monitoring tools

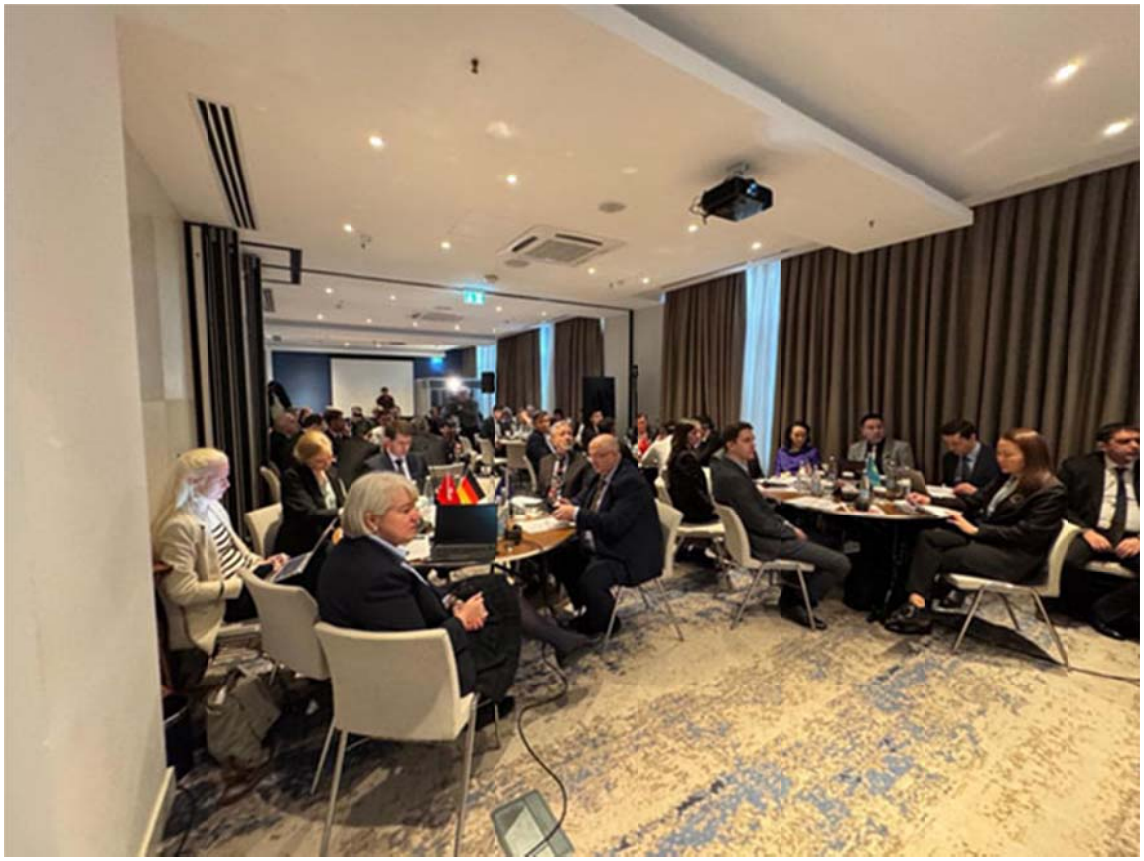
Second Meeting of the Syr Darya River Basin Dialogue

On January 22, 2025, the 2nd meeting of the Basin Dialogue in the Syr Darya River Basin was held in Tashkent as part of the Program "Climate Sensitive Water Resources Management in Central Asia". Dinara Ziganshina, Alexander Dolidudko and Gulnoza Khamdamova took part in the meeting on behalf of SIC ICWC.

The Program is implemented by the Deutsche Gesellschaft fur International Zusammenarbeit (GIZ) GmbH, with the financial support from the German Federal Ministry for Economic Cooperation and Development (BMZ) and co-financing by the EU and SDC.

The Programme's primary goal is to strengthen national and regional organizations responsible for water management in Central Asia to implement climate-sensitive integrated water resources management in a regionally coordinated manner, taking into account climate change impacts, thus improving regional cooperation and governance for sustainable development in Central Asia.

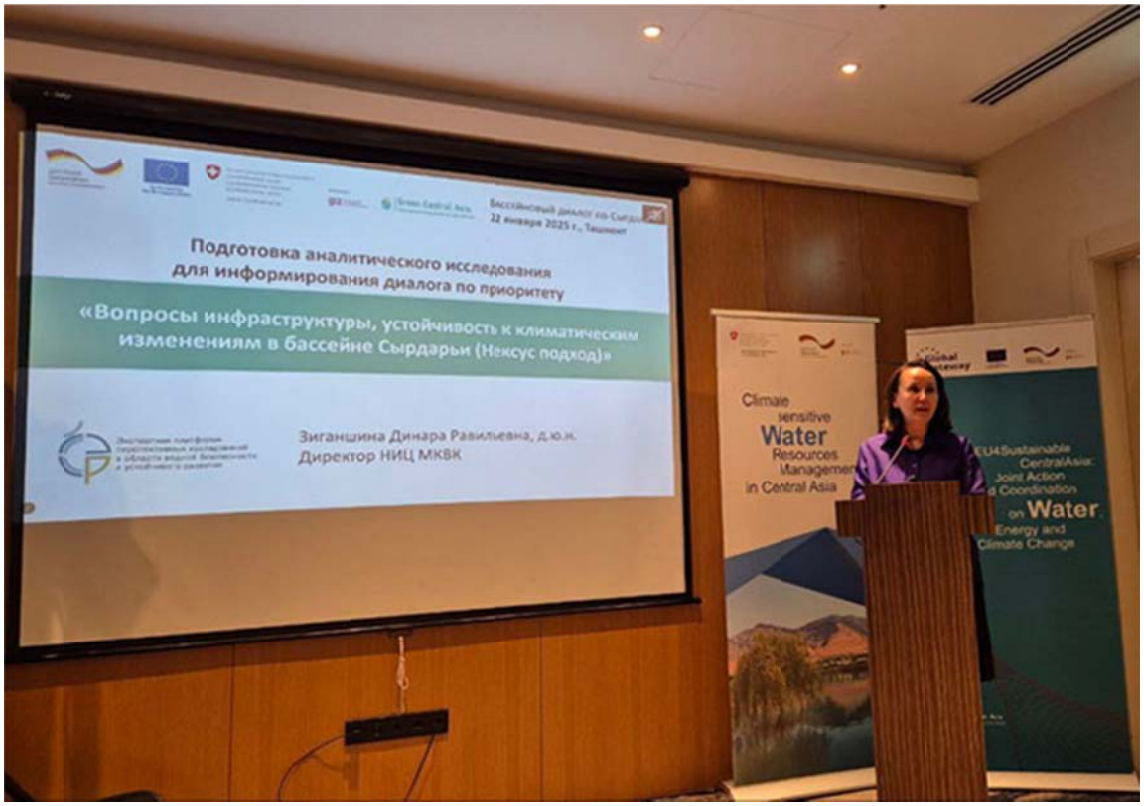
The meeting was attended by authorized representatives appointed from each Central Asian country (representatives of the Ministries of Foreign Affairs of Central Asia, relevant sectoral ministries, Hydrological Services), as well as representatives of the programme's international partners.



The meeting's objectives included:

- based on agreement with national authorities, improving regional cooperation through the development of monitoring and planning tools in line with the principles of integrated water resources management (IWRM), with account of climate change;
- presenting and discussing pilot projects agreed upon by national partners within the framework of the GIZ/SDC/EU water management programme;
- facilitating the exchange of management practices and enhancing the water management system and infrastructure within the Syr Darya river basin;
- discussing proposals for joint work within the agreed priority area "Enhancing resilience to climate change through the discussion of possible infrastructure development (Nexus approach) and improving monitoring/forecasting of river flow using modern methods along the Syr Darya river";
- discussing the concept for organization of events on occasion of the Syr Darya River Day in 2025.

Dinara Ziganshina, Director of SIC ICWC presented the conceptual framework of joint analytical work for informing dialogue on the priority "Infrastructure issues, resilience to climate change (Nexus approach) in the Syr Darya basin". Relevant country experts have reviewed the proposed concept.



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