

ANALYSIS OF HYDROLOGICAL CONDITIONS IN THE SYRDARYA AND AMUDARYA RIVER BASINS OVER THE NON-GROWING SEASON 2019-2020

1 Syrdarya River basin

The actual inflow to the upstream reservoirs in the Syrdarya basin (Toktogul, Andizhan, and Charvak reservoirs) was 5.32 km³ during the non-growing season. Inflow to the Toktogul reservoir was 3.13 km³ or 109 % of the forecast. Inflow to the Andizhan reservoir was 16 % lower than expected, while inflow to the Charvak reservoir was 5 % higher than the forecast. The actual total water releases from the upstream reservoirs were 11.72 km³. This is 6 % less than planned according to BWO Syrdarya schedule (12.51 km³).

The total lateral inflow in the reach from the Toktogul reservoir to the Shardara reservoir, including discharges from the Karadarya and Chirchik rivers, was 9.59 km³. This is 1.8 times more than the total inflow to the upstream reservoirs.

By the end of the non-growing season, 12.93 km³ were accumulated in the upstream reservoirs, including 11.64 km³ in the Toktogul reservoir or 109 % of the BWO Syrdarya's scheduled amount, 0.82 km³ (91 %) in the Andizhan reservoir, and 0.47 km³ (68 %) in the Charvak reservoir. The Toktogul reservoir discharged water in the amount of 5.57 km³, the Charvak reservoir was drawn down by 1.28 km³, whereas the Andizhan reservoir accumulated water in the amount of 0.11 km³.

During the non-growing season, the inflow to the Bakhri Tochik reservoir amounted to 12.1 km³, which is 0.95 km³ less than scheduled by BWO Syrdarya. Water releases from the reservoir were 11.9 km³, which is 0.03 km³ less than scheduled by BWO Syrdarya. The accumulation of water in the reservoir amounted to 3.07 km³. Unrecorded inflow to the reservoir was found in the amount of 0.36 km³.

During the non-growing season, water withdrawal from the Naryn and the Syrdarya rivers in the reach up to the Shardara reservoir was 3.03 km³, of which: the Kyrgyz Republic – 0.03 km³, the Republic of Tajikistan – 0.03 km³, the Republic of Kazakhstan (through the Dustlik canal) – 0.5 km³, and the Republic of Uzbekistan – 2.44 km³. Water availability was uneven by state, river reach and in time (Table 1.1).

The difference between the actual water supply and the water limit was from -26 % (2nd ten-day of February) to 65 % (1st ten-day of December) in the Toktogul-Bakhri Tochik reach and from -51% (3rd ten-day of December) to 9 % (2nd ten-day of March) in the Bakhri Tochik-Shardara reach (Table 1.4).

Water losses were recorded in the amount of 4.74 km³ in the Toktogul-Shardara reach; this is 26% of the regulated flow (estimated by the balance method). To compare, losses amounted to 3.72 km³ in the same reach during the non-growing season 2018-2019.

During the non-growing season 2019-2020, the inflow to the Shardara reservoir was 10.35 km³ or 2.39 km³ less than scheduled by BWO Syrdarya. By the end of the season, the reservoir accumulated water to 4.88 km³ (94 %). Unrecorded inflow in the amount of 0.06 km³ was found. The discharge from the Shardara reservoir amounted to 6.66 km³ (75 %), including: 6.55 km³ into the river; 0.09 km³ into the Kzylykum canal; and, 0.02 km³ into Arnasay.

The actual water supply to the Aral Sea was 1.16 km³, according to KazHydromet's data, while the Kazakh Committee for Water Resources shows 1.95 km³.

Tables 1.2 and 1.3 show the river's main course balance and the water balance of reservoirs, respectively.

Table 1.1

Water availability in the Syrdarya River basin countries for the non-growing season 2019-2020

№	Water user	Water volume, km ³		Water availability, %	Deficit(-), surplus (+), km ³
		Limit/schedule	Actual	Season	Season
1	Total water withdrawal	3.41	3.00	88	-0.41
2	Water withdrawal by country:				
	Kyrgyz Republic	0.037	0.03	70	-0.01
	Republic of Uzbekistan	2.48	2.44	98	-0.05
	Republic of Tajikistan	0.37	0.03	8	-0.34
	Republic of Kazakhstan	0.52	0.50	97	-0.01
3	By river reach				
3.1	Toktogul reservoir – Uchkurgan hydroscheme	1.37	1.29	95	-0.07
	of which:				
	Kyrgyz Republic	0.03	0.03	87	-0.004
	Republic of Tajikistan	0.09	0.03	36	-0.055
	Republic of Uzbekistan	1.25	1.24	99	-0.013
3.2	Uchkugran hydroscheme – Bakhri Tochik hydroscheme	0.25	0.16	63	-0.090
	of which:				
	Kyrgyz Republic	0.01	0.00	0	-0.007
	Republic of Tajikistan	0.07	0.00	0	-0.069
	Republic of Uzbekistan	0.17	0.16	92	-0.014
3.3	Bakhri Tochik hydroscheme – Shardara reservoir	1.79	1.55	86	-0.25
	of which:				
	Kyrgyz Republic	0.52	0.50	97	-0.01
	Republic of Tajikistan	0.21	0.00	0	-0.21
	Republic of Uzbekistan	1.06	1.04	98	-0.02
4	Inflow to the Shardara reservoir	12.74	10.35	81	-2.39
	Discharge into Arnasay	0.40	0.02	4	-0.38
5	Water supply to the Aral Sea (Karateren gauging station)	3.00	1.95	65	-1.05

Table 1.2

Syrdarya River's main course water balance for the non-growing season 2019-2020

№	Balance item	Water volume, km ³		Deviation (actual-plan)
		Forecast/plan	Actual	
1	Inflow to the Toktogul reservoir	2.87	3.13	0.26
2	Lateral inflow in the reach of Toktogul reservoir – Shardara reservoir (+)	9.67	9.59	-0.08
	of which:			
2.1	<i>Discharge from the Karadarya River</i>	1.66	1.75	0.09
2.2	<i>Discharge from Chirchik River</i>	1.05	0.84	-0.21
2.3	<i>Lateral inflow from CDF and small rivers</i>	6.97	7.00	0.03
3	Flow regulation by reservoirs: recharge (+) or diversion (-) of flow	5.23	5.36	0.13
	of which:			
3.1	<i>Toktogul reservoir</i>	6.54	5.57	-0.97
3.2	<i>Bakhri Tochik reservoir</i>	-1.31	-0.20	1.11
4	Regulated flow (1+2+3)	17.78	18.08	0.31
5	Water withdrawal at the Toktogul – Shardara reach (-)	-3.41	-3.00	0.41
6	Water losses (-) or unrecorded inflow to the main course (+) in the Toktogul-Shardara reach	-1.63	-4.74	-3.10
6.1	<i>Including % of the regulated flow</i>	9	26	
7	Inflow to the Shardara reservoir	12.74	10.35	-2.39
8	Flow regulation by the Shardara reservoir: recharge (+) or diversion (-) of flow	-3.81	-3.68	0.12
9	Releases from Shardara reservoir into the river	8.93	6.66	-2.26
10	Supply to the Aral Sea (Karateren GS)	3.00	1.95	-1.05

Table 1.3

Water balance of the Syrdarya River basin reservoirs for the non-growing season 2019-2020

№	Balance item	Water volume, km ³		Deviation (actual–plan)
		Forecast/plan	Actual	
1	Toktogul reservoir			
1.1	Inflow to the reservoir	2.87	3.13	0.26
1.2	Water volume in the reservoir:			
	- beginning of the season (1 October 2019)	17.21	17.214	0.00
	- end of the season (1 April 2020)	10.66	11.641	0.98
1.3	Water releases from the reservoir	9.42	8.70	-0.72
1.4	Unrecorded inflow (+) or losses (-)	-0.01	-0.006	0.007
	Including % of inflow to the reservoir	0	0	0
1.5	Flow regulation: recharge (+) or diversion (-) of flow	6.54	5.57	-0.97
2	Andizhan reservoir			
2.1	Inflow to the reservoir	0.81	0.68	-0.13
2.2	Water volume in the reservoir:			
	- beginning of the season (1 October 2019)	0.71	0.71	0.00
	- end of the season (1 April 2020)	0.90	0.82	-0.08
2.3	Water releases from the reservoir	0.62	0.55	-0.06
2.4	Unrecorded inflow (+) or losses (-)	0.00	-0.02	-0.02
	Including % of inflow to the reservoir	0	2	2
2.5	Flow regulation: recharge (+) or diversion (-) of flow	-0.20	-0.13	0.07
3	Charvak reservoir			
3.1	Inflow to the reservoir	1.43	1.50	0.08
3.2	Water volume in the reservoir:			
	- beginning of the season (1 October 2019)	1.75	1.75	0.00
	- end of the season (1 April 2020)	0.69	0.47	-0.22
3.3	Water releases from the reservoir	2.48	2.47	-0.01
	Unrecorded inflow (+) or losses (-)	-0.01	-0.32	-0.31
	Including % of inflow to the reservoir	1	21	20
3.5	Flow regulation: recharge (+) or diversion (-) of flow	1.05	0.96	-0.09
4	Bakhri Tochik reservoir			
4.1	Water inflow to the reservoir from the river	13.05	12.10	-0.95
4.2	Lateral inflow	0.300	0.372	0.07
4.3	Water volume in the reservoir:			
	- beginning of the season (1 October 2019)	2.15	2.15	0.00
	- end of the season (1 April 2020)	3.42	3.07	-0.35
4.4	Water releases from the reservoir	12.04	11.91	-0.12
	of which:			
	- releases into the river	11.93	11.90	-0.03
	- water withdrawal from the reservoir	0.11	0.02	-0.09
4.5	Unrecorded inflow (+) or losses (-)	-0.05	0.36	0.40
	Including % of inflow to the reservoir	0	3	3

№	Balance item	Water volume, km ³		Deviation (actual–plan)
		Forecast/plan	Actual	
4.6	Flow regulation: recharge (+) or diversion (-) of flow	-1.31	-0.20	1.11
5	Shardara reservoir			
5.1	Water inflow to the reservoir from the river	12.74	10.35	-2.39
5.2	Lateral inflow	0.0	0.0	0.00
5.3	Water volume in the reservoir:			
	- beginning of the season (1 October 2019)	1.13	1.13	0.00
	- end of the season (1 April 2020)	5.19	4.88	-0.31
5.4	Water releases from the reservoir	8.93	6.66	-2.26
	of which:			
	- discharge into Arnasay	0.40	0.02	-0.384
	- water releases into the river	8.44	6.55	-1.89
	- water withdrawal from the reservoir	0.08	0.09	0.01
5.5	Unrecorded inflow (+) or losses (-)	0.25	0.06	-0.19
	Including % of inflow to the reservoir	2	1	1
5.6	Flow regulation: recharge (+) or diversion (-) of flow	-3.81	-3.79	0.01
	Total flow regulation by reservoirs: inflow (+) or diversion (-)	2.28	2.41	0.13
	Total unrecorded inflow (-) or losses (+)	0.19	0.08	-0.10

Table 1.4

Deviation of actual water supply from limit in the Syrdarya River basin over the non-growing season 2019-2020

Indicator	Unit	October			November			December			January			February			March			Per season	
		I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III		
Toktogul-Bakhri Tochik reach																					
Total water withdrawal, of which:	Limit	m ³ /s	188	182	162	80	39	19	5	11	31	67	73	76	87	76	101	194	213	226	1,613
	Actual	m ³ /s	152	157	143	82	58	24	7	19	30	54	67	70	70	56	88	161	195	212	1,451
	Deviat.	%	-19	-14	-11	3	48	27	49	65	-3	-19	-7	-8	-20	-26	-13	-17	-8	-6	-10
Kyrgyz Republic	Limit	m ³ /s	9	7	7	1	1	1	0	0	0	0	0	0	0	0	0	4	5	7	37
	Actual	m ³ /s	5	4	4	3	2	2	1	0	0	0	0	0	0	0	0	1	3	2	26
	Deviat.	%	-41	-37	-45	116	219	213										-77	-43	-66	-30
Tajikistan	Limit	m ³ /s	23	20	20	12	0	0	0	0	0	0	0	0	6	8	10	22	25	28	154
	Actual	m ³ /s	5	5	4	4	5	1	0	0	0	0	0	0	0	0	1	2	3	4	30
	Deviat.	%	-78	-76	-81	-63									-100	-100	-88	-90	-87	-84	-80
Uzbekistan	Limit	m ³ /s	157	155	135	67	38	19	5	11	31	67	73	76	81	68	91	168	184	191	1,423
	Actual	m ³ /s	142	147	136	75	51	22	6	18	29	54	67	69	69	56	87	158	189	205	1,395
	Deviat.	%	-10	-5	1	12	32	16	35	63	-4	-19	-8	-8	-15	-18	-4	-6	3	8	-2
Bakhri Tochik-Shardara reach																					
Total water withdrawal, of which:	Limit	m ³ /s	149	143	140	85	75	66	66	81	96	54	74	113	130	153	163	158	146	153	1,794
	Actual	m ³ /s	115	111	110	75	71	61	56	53	47	46	53	96	130	141	145	155	160	143	1,549
	Deviat.	%	-23	-22	-21	-12	-6	-9	-15	-35	-51	-14	-28	-15	0	-8	-11	-2	9	-7	-14
Kazakhstan	Limit	m ³ /s	0	0	0	0	0	0	15	30	50	5	40	80	85	100	95	45	25	25	519
	Actual	m ³ /s	0	0	0	0	0	0	0	0	0	1	17	55	90	105	108	95	70	44	505
	Deviat.	%							-100	-100	-100	-82	-59	-31	6	5	14	111	180	77	-3
Tajikistan	Limit	m ³ /s	36	30	27	16	6	0	0	0	0	0	0	0	0	8	22	32	32	35	214
	Actual	m ³ /s	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Deviat.	%	-97	-100	-100	-100	-100									-100	-100	-100	-100	-100	-100
Uzbekistan	Limit	m ³ /s	113	113	113	69	69	66	51	51	46	49	34	33	45	45	46	81	89	93	1,061
	Actual	m ³ /s	114	111	110	75	71	61	56	53	47	45	37	40	40	36	36	60	90	99	1,043
	Deviat.	%	-55.1	-32.3	-7.6	6.0	10.1	4.9	12.1	3.9	8.2	10.2	34.3	25.3	27.1	32.1	25.6	-2.4	-2.5	19.9	0

2 Amudarya River basin

The actual water content in the Amudarya River at the nominal Atamyrat gauging station (upstream of intake to Garagumdarya) was 10.4 km³, which is 0.8% more than scheduled by BWO Amudarya.

Inflow to the Nurek reservoir was 4.3 km³ (111 % of the forecast), while water releases from the reservoir were 8.01 km³ (102 % of that scheduled by BWO Amudarya). The river received additional 3.74 km³ through drawdown of the Nurek reservoir. The reservoir was drawn down to 6.13 km³ by the end of season.

In the reservoirs of Tuyamuyun hydroscheme, the water accumulation plan has not been achieved – by the 1st of April the actual water volume was lower than the scheduled one by 0.75 km³ and totaled 2.8 km³. Failure to fulfill the accumulation plan is explained by lower inflow to the in-stream reservoir than was expected – flow at the Bir-Aral section was estimated at 6.94 km³ (95 % of the forecast). Water releases from TMHS also were higher than scheduled by BWO Amudarya – 8.41 km³ (107 %). Water losses at the Bir-Ata – Tuyamuyun g/s reach (discrepancy calculated by the balance method) amounted to 0.76 km³ or 11 % of river flow at Bir-Ata g/s.

The established limit of water withdrawal in the basin was 103 % used; water withdrawal was 16.16 km³, including 12.99 km³ downstream of the Atamyrat gauging station (starting from the intake to Garagumdarya).

Water availability for states changed from 97 % to 104 % (Table 2.1). The available water supply was 98 % in the upper reaches (up to Garagumdarya intake), 98 % in the middle reaches (from nominal Atamyrat g/s to TMHS), and 116 % (130 % - Turkmenistan, 108 % - Uzbekistan) in the lower reaches. Water deficit was 82 million m³ (3 %) in the Republic of Tajikistan, while it was not observed in the Republic of Uzbekistan and Turkmenistan.

The difference of actual water supply and the established water limit changed from -15 % to 22 % in the Nurek-Tuyamuyun reach and from -83% (2nd ten-day of November) to 3,081 % (1st ten-day of January) in the Tuyamuyun-Samanbay reach (Table 2.4).

Water losses in the nominal Atamyrat-Bir-Ata reach were insignificant and amounted to 0.46 km³ (3 % of river flow at the nominal Atamyrat g/s). Water losses in the Tuyamuyun-Samanbay reach amounted to 2.03 km³ (34 % of river flow at Tuyamuyun g/s). The total open-channel losses in middle and lower reaches amounted to 2.49 km³ or 24 % of river flow plus losses in TMHS reservoirs 2.49+0.76=3.25 km³ or 31 % of river flow at the nominal Atamyrat gauging station.

The established limits of environmental water releases into canals in the Amudarya lower reaches were 100% used; the water supply was 0.8 km³. According to the Uzbek Hydromet's data, 2.03 km³ were delivered to Prearalie and the Aral Sea or 97 % of planned water delivery.

Tables 2.2 and 2.3 show the river's main course balance and the water balance of reservoirs, respectively.

Table 2.1

Water availability in the Amudarya River basin countries for the non-growing season 2019-2020

№	Water user	Water volume, km ³		Water availability, %	Deficit (-), surplus (+), km ³
		Limit/schedule	Actual	Season	Season
1	Total water withdrawal	15.73	16.16	103	0.433
2	Water withdrawal by state:				
	<i>Kyrgyz Republic</i>	-	-	-	-
	<i>Republic of Tajikistan</i>	2.88	2.80	97	-0.08
	<i>Turkmenistan</i>	6.50	6.78	104	0.28
	<i>Republic of Uzbekistan</i>	6.35	6.59	104	0.24
3	Downstream of the Atamyrat reach	12.48	12.99	104	0.51
	of which:				
	<i>Turkmenistan</i>	6.50	6.78	104	0.28
	<i>Republic of Uzbekistan</i>	5.98	6.21	104	0.23
4	By river reache				
	Upper reaches	3.25	3.17	98	-0.07
	of which:				
	<i>Kyrgyz Republic</i>	-	-	-	-
	<i>Republic of Tajikistan</i>	2.88	2.80	97	-0.08
	<i>Republic of Uzbekistan, Surkhandarya</i>	0.37	0.38	102	0.01
	Middle reaches	8.35	8.21	98	-0.14
	of which:				
	<i>Turkmenistan</i>	5.10	4.95	97	-0.15
	<i>Republic of Uzbekistan</i>	3.25	3.25	100	0.01
	Lower reaches	4.13	4.78	116	0.64
	of which:				
	<i>Turkmenistan</i>	1.40	1.83	130	0.43
	<i>Republic of Uzbekistan</i>	2.73	2.95	108	0.22
5	Sanitary and environmental releases into canals within lower reaches	0.80	0.80	100	0.00
	Including:				
	<i>Turkmenistan</i>	0.15	0.15	100	0.00
	<i>Republic of Uzbekistan</i>	0.65	0.65	100	0.00
6	Supply to Priaralie and the Aral Sea	2.1	2.03	97	-0.07

Table 2.2

The Amudarya River's main course water balance for the non-growing season 2019-2020

Balance item	Water volume, km ³		Deviation (actual-plan)
	Forecast/plan	Actual	
1. Water content in the Amudarya River - non-regulated flow at Atamyrat g/s nominal*	10.32	10.41	0.083
2. Flow regulation by the Nurek reservoir: recharge (+) or diversion (-) of flow	4.06	3.74	-0.32
3. Water withdrawal in the middle reaches (-)	-8.35	-8.21	0.14
4. Return CDF (+) in middle reaches	1.24	1.46	0.22
5. Water losses (-) or unrecorded inflow to the main course (+)	0.04	-0.46	-0.50
% of flow at the nominal Atamyrat GS	0	3	3
6. Flow at the Bir-Ata GS	7.31	6.94	-0.37
7. Water releases from TMHS (including water diversion from the reservoir)	7.87	8.41	0.55
8. Water withdrawa in lower reaches, including from TMHS (-)	-4.13	-4.78	-0.64
9. Return CDF (+) in lower reaches	0.00	0.00	0.00
10. Emergency and environmental water releases into canals (-)	-0.80	-0.80	0.00
11. Runoff losses (-) or unrecorded inflow to the main course (+)	-1.73	-2.03	-0.30
% of flow in the Tuyamuyun GS reach	30	34	4
12. Supply to Prearalie and the Aral Sea (Samanbay GS)	1.21	0.80	-0.41
TOTAL losses:	-1.69	-2.49	-0.80
<i>% of water content</i>	16	24	8

* Minus water withdrawals in upper reaches (Tajikistan and Surkhandarya province)

Table 2.3

Water balance of the reservoirs in the Amudarya River basin for the non-growing season
2019-2020

Balance item	Water volume, km ³		Deviation (actual-plan)
	Forecast/plan	Actual	
1 Nurek reservoir			
2.1 Inflow to the reservoir	3.83	4.27	0.44
2.2 Water volume in the reservoir:			
– beginning of the season (1 October 2019)	10.57	10.55	-0.02
– end of the season (1 April 2020)	6.51	6.13	-0.38
2.3 Water releases from the reservoir	7.89	8.01	0.12
2.4 Lateral inflow (+) or water losses (-)	0.21	-0.68	-0.89
<i>% of the inflow to the reservoir</i>	6	16	10
2.5 Flow regulation: recharge (+) or diversion (-) of flow	4.06	3.74	-0.32
2 Reservoirs of TMHS			
2.1 River flow at Bir-Ata GS	7.31	6.94	-0.37
2.2 Water volume in the reservoirs:			
– beginning of the season (1 October 2019)	5.04	5.04	0.00
– end of the season (1 April 2020)	3.52	2.80	-0.78
2.3 Water release from the hydroscheme	7.87	8.41	0.55
of which:			
– release to river	5.71	5.89	0.18
– water diversion	2.16	2.52	0.36
2.4 Unrecorded inflow (+) or water losses (-)	-0.93	-0.76	0.17
<i>including %of inflow to the reservoir</i>	13	11	-2
2.5 Flow regulation: recharge (+) or diversion (-) of flow	0.56	-1.04	-1.60
TOTAL losses (-), unrecorded inflow (+)	-0.72	-1.44	-0.72

Table 2.4

Deviation of actual water supply from limit in the Amudarya River basin over the non-growing season 2019-2020

Indicator	Unit	October			November			December			January			February			March			Per season	
		I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III		
Nurek-Tuyamuyun reach																					
Total water withdrawal, of which:	Limit	m ³ /s	891	873	829	721	683	547	469	528	528	580	616	628	660	774	844	957	1,044	1,030	11,593
	Actual	m ³ /s	998	869	817	710	640	561	570	600	622	636	628	626	674	677	755	813	886	873	11,381
	Deviat.	%	12	0	-1	-1	-6	3	22	14	18	10	2	0	2	-13	-11	-15	-15	-15	-2
Tajikistan	Limit	m ³ /s	238	230	210	206	206	190	146	138	132	128	128	134	143	162	193	222	238	237	2,878
	Actual	m ³ /s	291	248	234	194	142	148	150	144	148	175	149	134	149	153	149	161	188	218	2,796
	Deviat.	%	23	8	11	-6	-31	-22	3	4	13	37	17	0	4	-5	-23	-27	-21	-8	-3
Turkmenistan	Limit	m ³ /s	395	384	360	295	260	230	219	211	205	210	230	246	275	359	406	483	527	516	5,100
	Actual	m ³ /s	432	380	359	301	296	249	241	230	226	231	251	260	287	292	346	386	437	437	4,953
	Deviat.	%	9	-1	0	2	14	8	10	9	10	10	9	6	4	-19	-15	-20	-17	-15	-3
Uzbekistan	Limit	m ³ /s	258	259	258	220	217	127	104	179	191	242	258	248	242	253	245	252	279	278	3,615
	Actual	m ³ /s	275	241	224	215	202	164	179	226	248	230	228	232	238	231	261	266	261	218	3,632
	Deviat.	%	6	-7	-13	-2	-7	29	72	26	30	-5	-12	-6	-1	-9	7	5	-6	-22	0
Tuyamuyun-Samanbay reach																					
Total water withdrawal, of which:	Limit	m ³ /s	381	312	199	132	141	130	152	144	110	10	14	17	195	351	495	677	707	578	4,135
	Actual	m ³ /s	367	301	212	85	23	37	204	552	597	318	103	86	107	175	401	605	673	578	4,779
	Deviat.	%	-4	-4	6	-35	-83	-72	35	284	442	3,081	637	415	-45	-50	-19	-11	-5	0	16
Turkmenistan	Limit	m ³ /s	175	115	10	0	0	0	0	7	10	10	14	17	115	180	210	253	263	236	1,400
	Actual	m ³ /s	196	82	26	5	3	0	85	238	247	142	57	51	67	91	140	202	224	219	1,826
	Deviat.	%	12	-29	157					3,296	2,369	1,317	307	206	-41	-50	-33	-20	-15	-7	30
Uzbekistan	Limit	m ³ /s	206	197	189	132	141	130	152	137	100	0	0	0	80	171	285	424	444	343	2,735
	Actual	m ³ /s	172	219	186	80	20	37	120	314	350	176	46	35	39	85	261	403	449	359	2,953
	Deviat.	%	-16	11	-2	-39	-85	-72	-21	130	250				-51	-50	-9	-5	1	5	8