

Monitoring of changes in the water surface and wetland area of the Aral Sea and the Aral Region

SIC specialists are constantly monitoring the state of the Southern Aral Sea and parts of the Greater Aral Sea by using the Landsat 8-9 OLI images. The use of the NDVI index with refined threshold values has been started, which allow recognizing three categories of surfaces: 1) open water surface, 2) wetlands, 3) land. According to the image from 23 November 2025, the areas of wetlands and open water surface were determined.

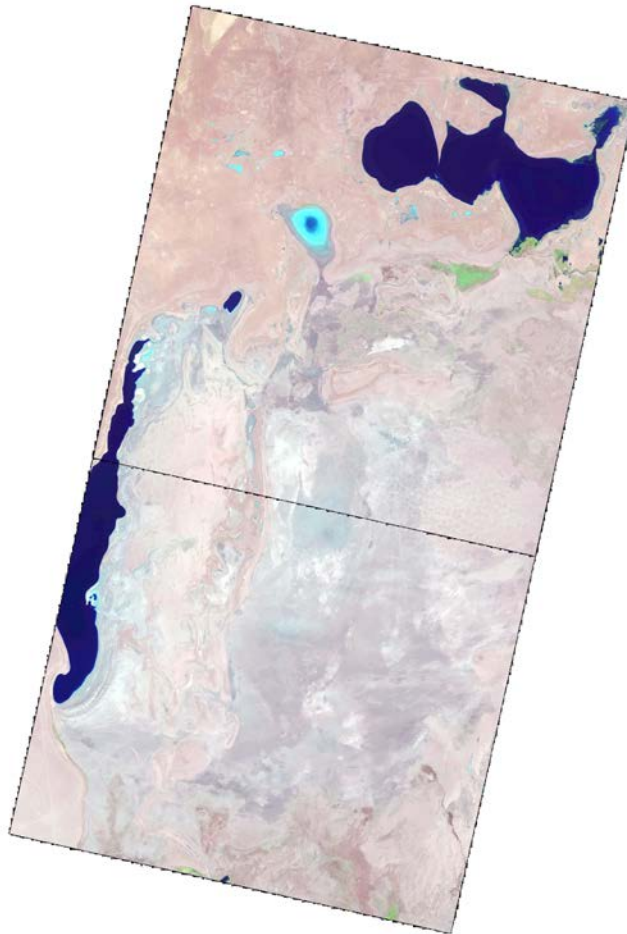


Figure 1. The Aral Region. Landsat 8 and 9, 23 November 2025

Table 1

**The area of wetlands, open water surfaces and dried ground*
in the Western and Eastern parts of the Aral Sea**

	16.06.2025	10.07.2025	27.08.2025	04.09.2025	05.10.2025	23.11.2025
Western part of the Aral Sea, ha						
Wetland	308277	Cloudy	328207	333464	338323	352274
Water surface	191657		189092	188184	186758	186661
Dried ground*	61416		44021	39702	36269	22415
Eastern part of the Aral Sea, ha						
Wetland	Cloudy	Cloudy	1456135	1458456	1459973	1483877
Water surface			11	10	10	37
Dried ground*			40678	38358	36841	12910

* bare soil, dense or rare vegetation

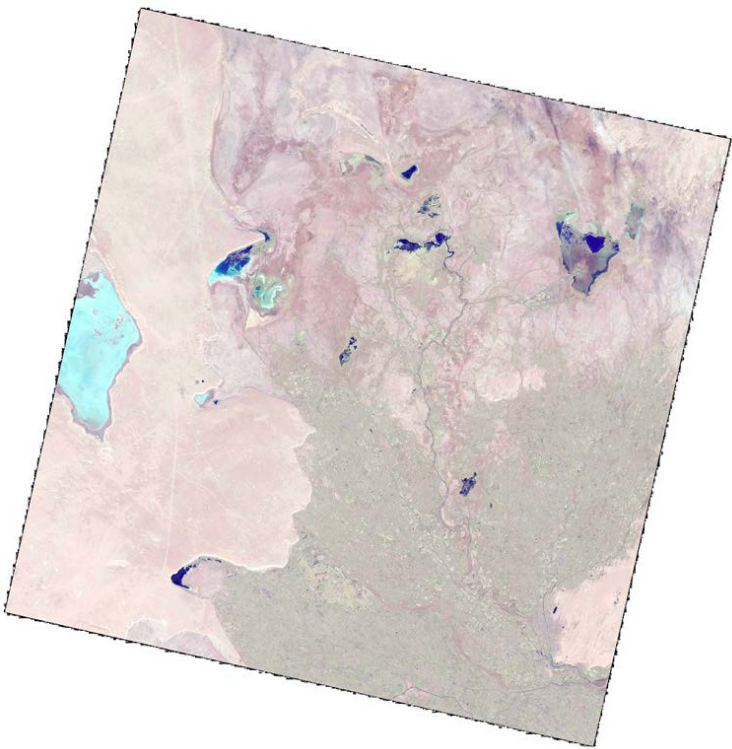


Figure 2. The Aral Region. Landsat 8 and 9, 23 November 2025

Table 2**Wetland areas of the Southern Aral Sea region, ha**

Water body	16.06.2025	10.07.2025	27.08.2025	04.09.2025	05.10.2025	23.11.2025
Sudoche	12420	10129	13684	13985	15702	25812
Mejdureche	398	318	243	257	331	1691
Rybaché	254	318	277	302	747	2747
Muynak	172	120	146	167	735	6452
Djilyrbas dam-terminated	1700	781	588	559	989	2189
Djilyrbas (together with former right and left streams)	2053	931	2074	2103	3687	4687
Dumalak	0	0	0	0	30	18
Makpalkul	201	49	25	16	26	1280
Mashan Karadjär	528	379	319	318	658	1858
Water surface southward of Muynak	3.06	36	199	222	180	123
Water surface southward of Kazakhdarya	0	0	0	0.7	5	86
Zakirkol	77	16	1	0.6	9	37
Total:	17806.06	13077	17556	17930	23099	46980

Table 3**The area of open water surface in the Aral region, ha**

Water body	16.06.2025	10.07.2025	27.08.2025	04.09.2025	05.10.2025	23.11.2025
Sudoche	8057	6915	4146	3785	5762	4806
Mejdureche	1683	1573	957	986	1580	3580
Rybaché	1366	952	733	750	896	1021
Muynak	167	139	50	42	35	202
Djiltyrbas dam-terminated	5662	5217	4527	4298	4778	7374
Djiltyrbas (together with former right and left streams)	0	17	14	14	60	264
Dumalak	0	0	0	0	0	0
Makpalkul	170	68	70	58	55	751
Mashan Karadjar	609	548	204	171	319	830
Water surface southward of Muynak	0.09	0	0	0	0	0
Water surface southward of Kazakhdarya	0	0	0	0	0	0
Zakirkol	6	0	0	0	0	50
Total:	17720	15429	10701	10104	13485	18878

Table 4

Dried ground area* in the Aral Region, ha

Water body	16.06.2025	10.07.2025	27.08.2025	12.09.2025	05.10.2025	23.11.2025
Sudoche	52220	55653	54867	54927	51233	42079
Mejdureche	35703	35893	36584	36541	35873	32513
Rybacha	9873	10223	10483	10441	9850	7725
Muynak	15825	15905	15968	15955	15394	9510
Djilyrbas dam-terminated	40110.39	41474.39	42357.39	42615	41705.39	37909
Djilyrbas (together with former right and left streams)	96898	98003	96863	96834	95204	94000
Dumalak	16050	16050	16050	16050	16020	16032
Makpalkul	8313	8567	8589	8610	8603	6653
Mashan Karadjar	26064	26274	26678	26712	26224	24513
Water surface southward of Muynak	9601.85	9569	9406	9383	9425	9482
Water surface southward of Kazakhdarya	4751.5	4751.5	4751.5	4751	4746.5	4665.5
Zakirkol	2708.3	2775.3	2790.3	2791	2782.3	2704.3
Total:	318118	325138	325387	325610	317060	287786

* bare soil, dense or rare vegetation

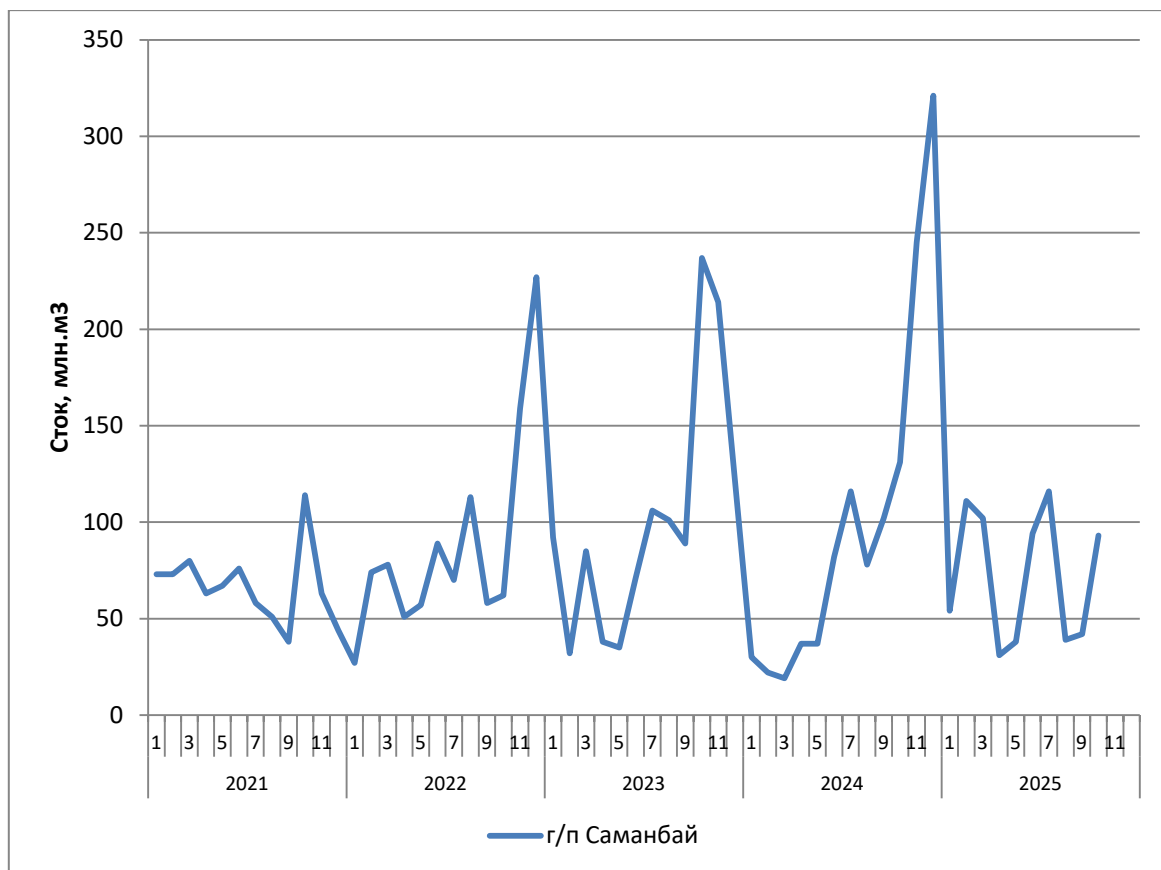


Fig.3 Dynamics of the Amu Darya River runoff at the Samanbay gauging station

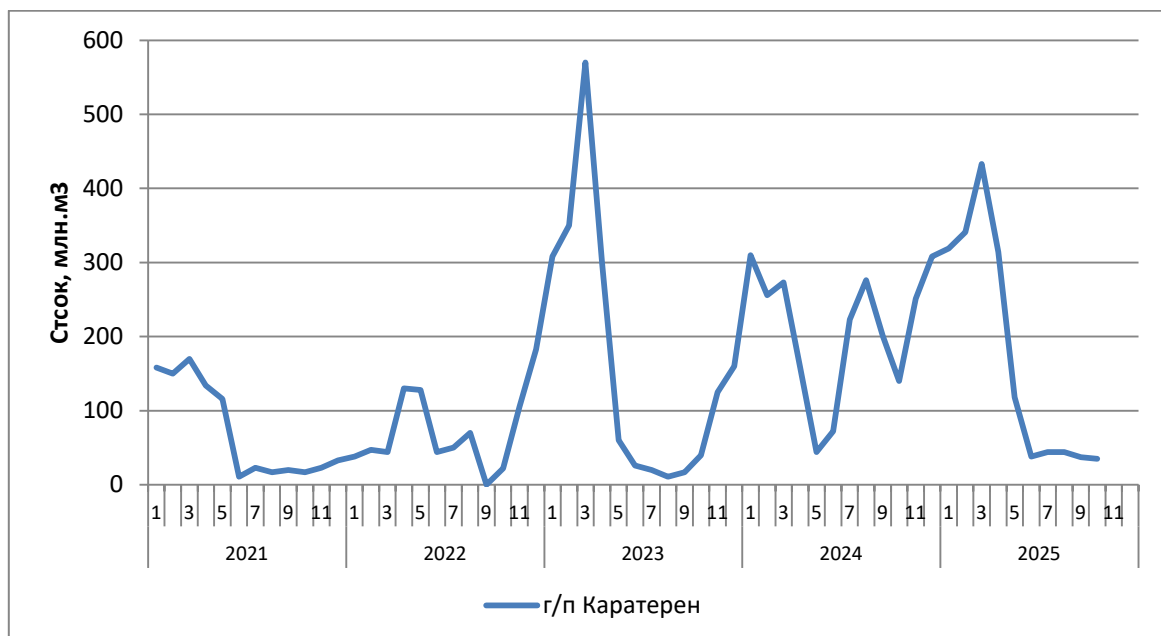


Fig.4 Dynamics of the Syr Darya river flow along the Karateren gauging station

Table 5**Inflow to Inflow to the Aral Region and Aral Sea, mln.m³**

Month	From Amu Darya River*	From canal systems**	Collector-drainage runoff**	Total	Release from North Aral sea
January	54	39	54	147	0
February	111	18	57	186	0
March	102	60	81	243	0
April	31	0	105	136	0
May	38	0	90	128	0
June	94	0	82	176	0
July	116	0	129	245	0
August	39	0	124	163	0
September	42	0	103	145	0
October	93	51	86	230	0

*Source: Uzhydrometeoservice

** Source: Ministry of Water Resources of the Republic of Uzbekistan

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