## 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 12 March and 28 March 2025, the areas of wetlands and open water surface were determined. Due to the high cloud cover of the images for March in the Western and Eastern Urals, it was not possible to determine the area.



Figure 1. The Aral Region. Landsat 8 and 9, 28 March 2025



Figure 2. The Aral Region. Landsat 8 and 9, 12 March 2025

## Table 1

Water body	03.10.2024	22.12.2024	12.03.2025	
Sudoche	18663	46629	32711	
Mejdureche	292	3386	1907	
Rybache	259	3789	946	
Muynak	986	8098	2550	
Djiltyrbas dam-terminated	1891	19634	7351	
Djiltyrbas (together with former right and left streams)	4211	51989	20787	
Dumalak	8	1347	140	
Makpalkul	31	1259	527	
Mashan Karadjar	762	5362	3091	
Water surface southward of Muynak	226	4118	1273	
Water surface along Kazakhdarya river channel	1.35	725	74	
Zakirkol	1	108	90	
Total:	27331.35	146444	71447	

## Areas of wetlands in the Aral Region, ha

Water body	03.10.2024	22.12.2024	12.03.2025	
Sudoche	5490	13821	18004	
Mejdureche	2340 12838		13931	
Rybache	656 1207		2688	
Muynak	33	1273	2745	
Djiltyrbas dam- terminated	3289	15742	18764	
Djiltyrbas (together with former right and left streams)	35	704	3161	
Dumalak	0	0	0.18	
Makpalkul	31	3324	3725	
Mashan Karadjar	635	2419	2425	
Water surface southward of Muynak	1	18	171	
Water surface along Kazakhdarya river channel	0.09	0.9	0.6	
Zakirkol	0	449	581	
Total:	12510.09	51795.9	66195.78	

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

## Table 3

Water body	03.10.2024	22.12.2024	12.03.2025
Sudoche	48544	12247	21982
Mejdureche	35152	21560	21946
Rybache	10578	6497	7859
Muynak	15145	6793	10869
Djiltyrbas dam- terminated	42292.3	12096.3	21357.39
Djiltyrbas (together with former right and left streams)	94705	46258	75003
Dumalak	16042	14703	15909.82
Makpalkul	8622	4101	4432
Mashan Karadjar	25804	19420	21685
Water surface southward of Muynak	9378	5469	8161
Water surface along Kazakhdarya river channel	4750.06	4025.6	4676.9
Zakirkol	2790.3	2234.3	2120.3
Total:	313802.7	155404.2	216001.4

\* bare soil, dense or rare vegetation

Table 4

Inflow to Inflow to the Aral Region and Aral Sea in 2024,	mln.m <sup>3</sup>
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Month	From Amu Darya River*	From canal systems**	Collector- drainage runoff**	Total	Runoff from North Aral Sea
January	54	39	54	147	0
February	111	18	57	186	0
March	102	60	81	243	0

\*Source: Uzhydrometeoservice

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

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