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 29 April 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, 29 April 2025

	24.08.2024	09.09.2024	28.03.2025	29.04.2025				
Western part of the Aral Sea, ha								
Wetland	311806	303946	326552	327496				
Water surface	195410	195161	193014	193474				
Dried ground*	54134	62243	41784	40380				
Eastern part of the Aral Sea, ha								
Wetland	1434433	1432488	1454077	1466098				
Water surface	43	13	29	43				
Dried ground*	62348	64205	42712	30683				

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

*голая почва, густая и скудная растительность



Fig.2 Dynamics of the Amu Darya River runoff at the Samanbay gauging station



Fig.3 Dynamics of the Syr Darya river flow along the Karateren gauging station

Table 2

Month	From Amu Darya River*	from canal systems**	collector- drainage runoff**	Total	Plan
January	54	39	54	147	0
February	111	18	57	186	0
March	102	60	81	243	0

Inflow to Inflow to the Aral Region and Aral Sea, mln.m³

*Source: Uzhydrometeoservice

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

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