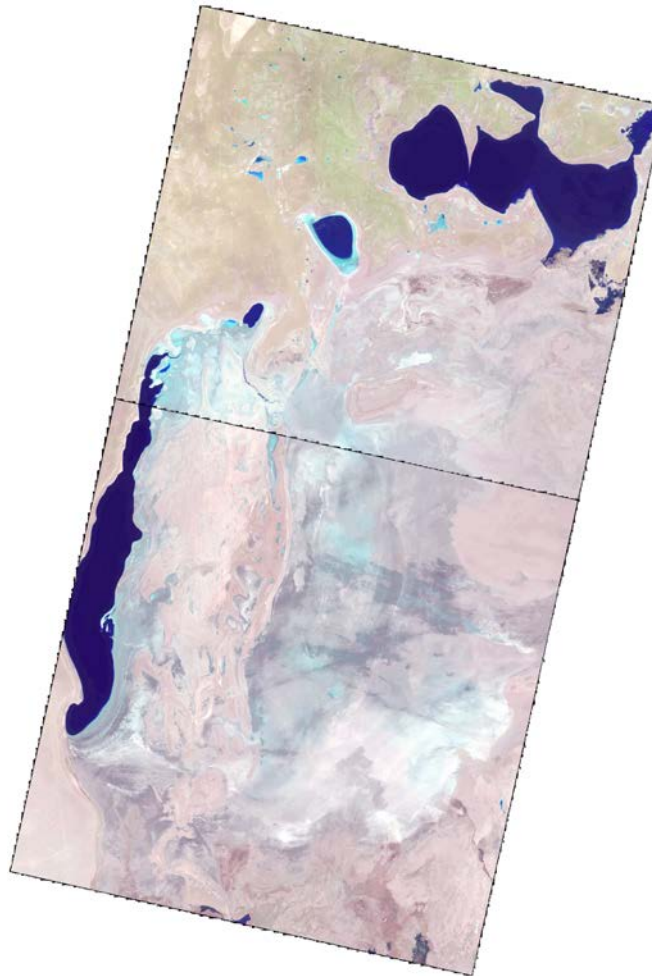


Monitoring of changes in the water surface and wetland area of the Aral Sea and the Aral Region

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 18 April 2024, the areas of wetlands and open water surface were determined



**Figure 1 Western and Eastern parts of the Aral Sea
Landsat 8-9, 18 April 2024**

Table 1**The area of wetlands, open water surfaces and dried ground*
in the Western and Eastern parts of the Aral Sea**

	17.10.2023	02.11.2023	01.03.2024	18.04.2024
<i>Western part of the Aral Sea, ha</i>				
Wetland	324 587	331 197	302 160	309 003
Water surface	200 855	200 819	202 022	199 234
Dried ground*	35 908	29 334	57 169	53 113
<i>Eastern part of the Aral Sea, ha</i>				
Wetland	1 462 390	1 470 950	1 316 379	1 461 355
Water surface	15	32	46	15
Dried ground*	34 419	25 842	180 399	35 454

* bare soil, dense or rare vegetation

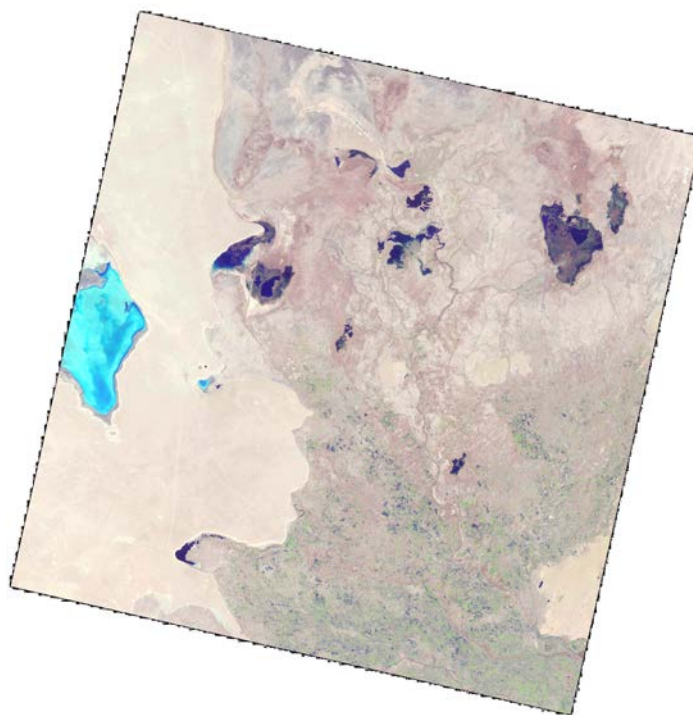
**Figure 2. The Aral Region. Landsat 8 and 9, 18 April 2024**

Table 2**Areas of wetlands in the Aral Region, ha**

Water body	17.10.2023	02.11.2023	01.03.2024	18.04.2024
Sudoche	23576.2	33806.8	13257.2	16276
Mejdureche	352.8	2117.5	3095.3	1191
Rybache	41.3	2480.9	1812.1	241
Muynak	185.6	2537.9	2989.1	2136
Djiltyrbas dam-terminated	1552.	9370.7	16892.4	16353
Djiltyrbas (together with former right and left streams)	5033.8	17307	16697	10236
Dumalak	20.7	342.2	632.6	37
Makpalkul	22.9	488.3	559.0	385
Mashan Karadjar	1169.1	3028.9	2595.2	1388
Water surface southward of Muynak	272.5	2949.2	1171.7	166
Water surface along Kazakhdarya river channel	4.5	93.0	76.3	11
Zakirkol	1.8	25.8	84.3	117
Total:	32234.0	74548.6	59862.7	48537

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

Water body	17.10.2023	02.11.2023	01.03.2024	18.04.2024
Sudoche	4981.0	9686.43	14748.03	15293
Mejdureche	2816.4	9016.56	12208.68	7391
Rybatche	0	0.18	1493.82	1996
Muynak	11.8	24.39	1172.88	1382
Djilyrbas dam-terminated	2326.2	5373.82	15505.2	14247
Djilyrbas (together with former right and left streams)	382.6	483.75	1164	1771
Dumalak	1.5	0.09	0	0
Makpalkul	7.4	307.53	3261.42	3180
Mashan Karadjar	490.3	544.77	1519.11	1150
Water surface southward of Muynak	0	0	44.91	0
Water surface along Kazakhdarya river channel	0.09	1.17	0.09	0
Zakirkol	0	139.14	740.52	534
Total:	11017.71	25577.83	51858.66	46944

Table 4

Dried ground area* in the Aral Region, ha

Water body	17.10.2023	02.11.2023	01.03.2024	18.04.2024
Sudoche	44139.73	29203.69	44691.7	41128
Mejdureche	34614.65	26649.92	22479.95	29202
Rybatche	11451.69	9011.88	8187.03	9256
Muynak	15966.45	13601.7	12001.95	12646
Djiltyrbas dam-terminated	43593.66493	32727.86493	15074.73493	16872.39493
Djiltyrbas (together with former right and left streams)	93534.44	81160.25	81090	86944
Dumalak	16027.77	15707.64	15417.39	16013
Makpalkul	8653.58	7888.13	4863.5	5119
Mashan Karadjar	25541.58	23627.28	23086.65	24663
Water surface southward of Muynak	9332.48	6655.79	8388.38	9439
Water surface along Kazakhdarya river channel	4746.91	4657.27	4675.09	4740.5
Zakirkol	2789.5	2626.33	1966.45	2140.3
Total:	310392.4	253517.7	241922.8	258163

* bare soil, dense or rare vegetation

Table 5**Inflow to Inflow to the Aral Region and Aral Sea in 2024, mln.m³**

Month	From Amu Darya River	from canal systems	collector-drainage runoff	Total	Plan	Runoff from North Aral Sea
January	30	34	30	94	774	0
February	22	37	26	85	167	0
March	19	0	107	126	185	0

Prepared by: I. Ruziev and I. Ergashev