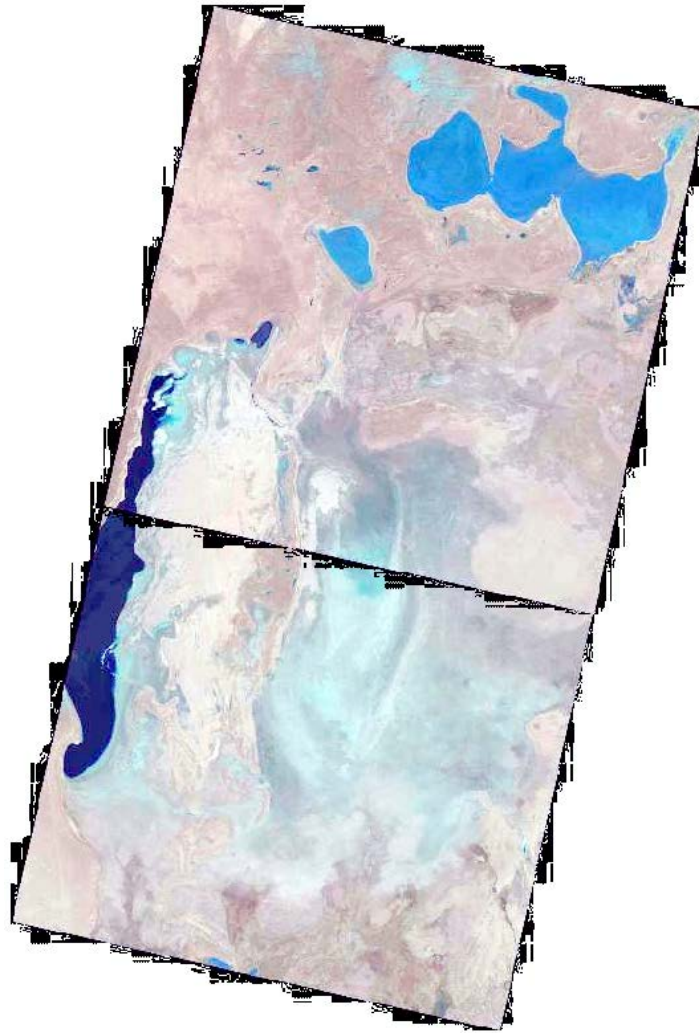


Monitoring of changes in the water surface and wetland area of the Aral Sea and the Aral Region

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 January 2023, the areas of wetlands and open water surface were determined



**Figure 1 3 Western and Eastern parts of the Aral Sea
Landsat 8-9, 18 January 2023**

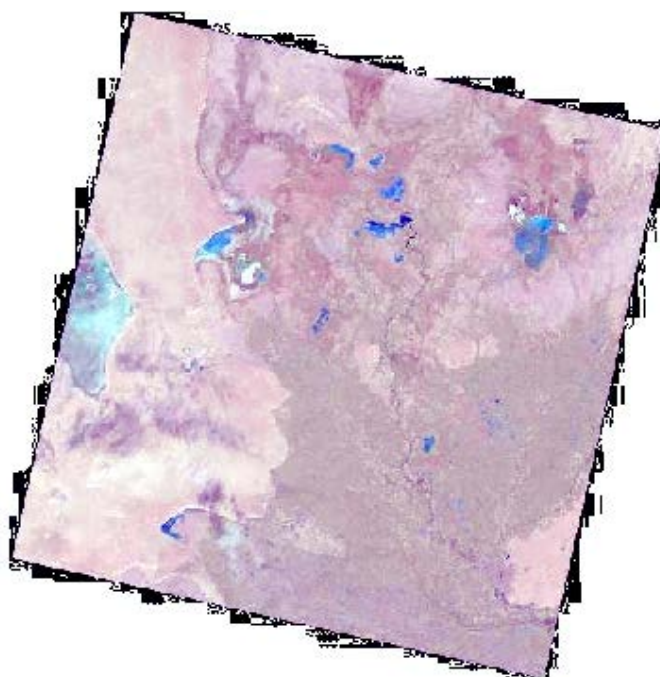
Table 1

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

	27.08.2022	20.09.2022	18.01.2023
<i>Western part of the Aral Sea, ha</i>			
Wetland	4644	9834	250 244.3
Water surface	214 563	211 891	209 733
Dried ground*	342 143	339 625	101 372.9
<i>Eastern part of the Aral Sea, ha</i>			
Wetland	3845	6108	1 386 722
Water surface	145	46,17	364.41
Dried ground *	1 492 835	1 490 670	109 737.8
	Август	Сентябрь	Декабрь
** Inflow to the Aral Region, Mm ³ /month	181	145	361

* bare soil, dense or rare vegetation

**Source BWO Amu Darya



**Figure 2. The Aral Region.
Landsat 8 and 9. 18 January 2023**

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

Water body	20.09.2022	06.10.2022	18.01.2023
Sudoche	865.98	20858.4	22244.4
Mejdureche	47.88	2100	4443.03
Rybatche	0	1275.39	1143.72
Muynak	2.88	729	753.48
Djiltyrbas dam-terminated	21.69	5516.46	8270.01
Djiltyrbas (together with former right and left streams)	95.22	12242.25	22669.29
Dumalak	0	481	1365.66
Makpalkul	0	168.21	650.7
Mashan Karadjar	20.43	1207.35	2288.43
Water surface southward of Muynak	0.27	475	524.43
Water surface along Kazakhdarya river chan- nel	0	96.3	355.77
Zakirkol	0	19.08	47.34
Total:	1 054.35	45 168.44	64 756.26

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

Water body	20.09.2022	06.10.2022	18.01.2023
Sudoche	3239.37	4325.49	6906.33
Mejdureche	1784.61	1528	6538.95
Rybatche	0.36	0.18	1574.64
Muynak	5.31	5.31	2754.54
Djiltyrbas dam-terminated	322.29	213.3	10924.47
Djiltyrbas (together with former right and left streams)	7.38	15.3	451.17
Dumalak	0	0	0
Makpalkul	0.09	0	3970.71
Mashan Karadjar	152.64	210.2	1717.74
Water surface southward of Muynak	0	0	62.64
Water surface along Kazakhdarya river channel	0	0	0.27
Zakirkol	0	0	293.31
Total:	5 512.05	6 297.78	35 194.77

Table 4**Dried ground area* in the Aral Region, ha**

Water body	20.09.2022	06.10.2022	18.01.2023
Sudoche	68591.65	47513.11	43546.27
Mejdureche	35951.51	34156	26802.02
Rybatche	11492.64	10217.43	8774.64
Muynak	16155.81	15429.69	12655.98
Djiltyrbas dam-terminated	47128.41	41742.63493	28277.91493
Djiltyrbas (together with former right and left streams)	98848.4	86693.45	75830.54
Dumalak	16050	15569	14684.34
Makpalkul	8683.91	8515.79	4062.59
Mashan Karadjar	27027.93	25783.45	23194.83
Water surface southward of Muynak	9604.73	9130	9017.93
Water surface along Kazakhdarya river channel	4751.5	4655.2	4395.46
Zakirkol	2791.3	2772.22	2450.65
Total:	347 077.7	302 177.9	253 693.16

*bare soil, dense or rare vegetation

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