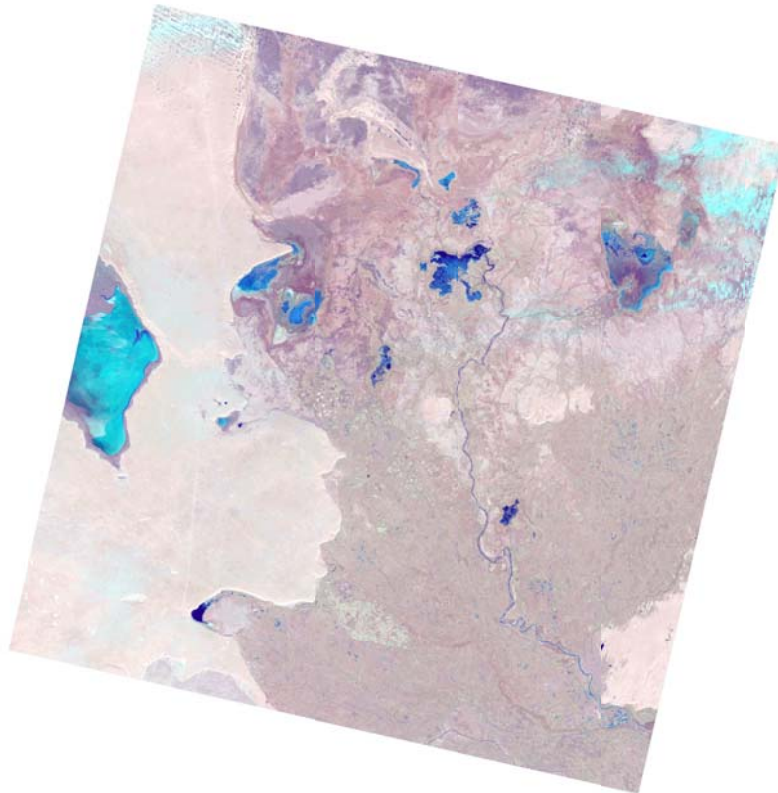


## **Monitoring of changes in the water surface and wetland area of the Aral Sea and the Aral Region**

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 22 December 2024, the areas of wetlands and open water surface were determined



**Figure. The Aral Region. Landsat 8 and 9, 22 December 2024**

Table 1

## Areas of wetlands in the Aral Region, ha

<b>Water body</b>	<b>06.06.2024</b>	<b>31.07.2024</b>	<b>24.08.2024</b>	<b>09.09.2024</b>	<b>03.10.2024</b>	<b>22.12.2024</b>
Sudoche	7377	10470	9959	8599	18663	46629
Mejdureche	534	275	401	264	292	3386
Rybache	79	103	177	174	259	3789
Muynak	106	131	239	274	986	8098
Djiltyrbas dam-terminated	960	535	956	657	1891	19634
Djiltyrbas (together with former right and left streams)	668	895	753	757	4211	51989
Dumalak	6	7	4	2	8	1347
Makpalkul	302	30	36	13	31	1259
Mashan Karadjar	326	232	111	150	762	5362
Water surface southward of Muynak	2	40	30	47	226	4118
Water surface along Kazakhdarya river channel	0	0.09	0	0.18	1.35	725
Zakirkol	56	1	0	0	1	108
<b>Total:</b>	<b>10416</b>	<b>12719.09</b>	<b>12666</b>	<b>10937</b>	<b>27331.35</b>	<b>146444</b>

Table 2

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

Water body	06.06.2024	31.07.2024	24.08.2024	09.09.2024	03.10.2024	22.12.2024
Sudoche	9521	4412	3830	4874	5490	13821
Mejdureche	2078	1648	1389	990	2340	12838
Rybacha	1735	1037	721	702	656	1207
Muynak	168	19	4	12	33	1273
Djiltyrbas dam-terminated	5522	4637	3883	2865	3289	15742
Djiltyrbas (together with former right and left streams)	51	30	14	11.34	35	704
Dumalak	0	0	0	0	0	0
Makpalkul	206	60	79	50	31	3324
Mashan Karadjar	420	170	153	241	635	2419
Water surface southward of Muynak	0	0.18	0	0	1	18
Water surface along Kazakhdarya river channel	0	0.18	0	0	0.09	0.9
Zakirkol	79	0	0	0	0	449
<b>Total:</b>	<b>19780</b>	<b>12013.36</b>	<b>10073</b>	<b>9745</b>	<b>12510.09</b>	<b>51795.9</b>

Table 3

## Dried ground area\* in the Aral Region, ha

<b>Water body</b>	<b>06.06.2024</b>	<b>31.07.2024</b>	<b>24.08.2024</b>	<b>09.09.2024</b>	<b>03.10.2024</b>	<b>22.12.2024</b>
Sudoche	55799	57815	58908	59224	48544	12247
Mejdureche	35172	35861	35994	36530	35152	21560
Rybache	9679	10353	10595	10617	10578	6497
Muynak	15890	16014	15921	15878	15145	6793
Djiltyrbas dam-terminated	40990.39	42300	42633	43950.3	42292.3	12096.3
Djiltyrbas (together with former right and left streams)	98232	98026	98184	98182.66	94705	46258
Dumalak	16044	16043	16046	16048	16042	14703
Makpalkul	8176	8594	8569	8621	8622	4101
Mashan Karadjar	26455	26799	26937	26810	25804	19420
Water surface southward of Muynak	9603	9564.82	9575	9558	9378	5469
Water surface along Kazakhdarya river channel	4751.5	4751.23	4751.5	4751.32	4750.06	4025.6
Zakirkol	2656.3	2790.3	2791.3	2791.3	2790.3	2234.3
<b>Total:</b>	<b>323448</b>	<b>328911.74</b>	<b>330905.1</b>	<b>332961.6</b>	<b>313802.7</b>	<b>155404.2</b>

\* 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>**

Month	From Amu Darya River*	From canal systems**	Collector-drainage runoff**	Total	Plan	Runoff from North Aral Sea
January	30	34	30	<b>94</b>	774	0
February	22	37	26	<b>85</b>	167	0
March	19	0	107	<b>126</b>	185	0
April	37	0	219	<b>256</b>	180	0
May	37	0	81	<b>118</b>	336	0
June	82	0	87	<b>169</b>	391	0
July	116	0	113	<b>229</b>	480	0
August	78	6	144	<b>228</b>	391	0
September	102	6	130	<b>238</b>	319	0
October	131	69	89	<b>289</b>	148	0
November	245	59	50	<b>354</b>	379	0

\*Source: Uzhydrometeoservice

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

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