

A stylized sun with rays and a bird in flight, rendered in a traditional Kazakh folk art style.

Ecological and Economic Recovery in Kazakhstan's Northern Aral Sea Region

A stylized mountain range with jagged peaks, rendered in a traditional Kazakh folk art style.

Kristopher White

KIMEP University



2005



2018



Springer Earth System Sciences

Philip Micklin
N.V. Aladin
Igor Plotnikov *Editors*

The Aral Sea

The Devastation and Partial
Rehabilitation of a Great Lake

PRAXIS

 Springer

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COMMUNICATION AND MEDIA

Environmental Crises in Central Asia

From steppes to seas, from deserts to
glaciers

Edited by
Eric Freedman and Mark Neuzil


from Routledge



Related Literature

White, K.D. 2016. Kazakhstan's Northern Aral Sea today: Partial ecosystem restoration and economic recovery. In: Freedman, E. and Neuzil, M. eds. *Environmental Crises in Central Asia: From steppes to seas, from deserts to glaciers*. London and New York: Routledge, pp. 129-140.

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Chen, D.H. 2018. Once written off for dead, the Aral Sea is now full of life. *National Geographic* March 16 <https://news.nationalgeographic.com/2018/03/north-aral-sea-restoration-fish-kazakhstan/>

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“The Aral Sea tragedy provides the most striking example of the interconnections between the health of an ecosystem and that of the economy, community, and people dependent on that ecosystem.”

Postel, 2000, p. 943

Symphony for the return of the Aral Sea

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Return of the Aral Sea

Conant, E. 2006. *Discover Magazine*

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21st Century Desiccation of the Aral Sea: 2000 and 2018*



2000



2018

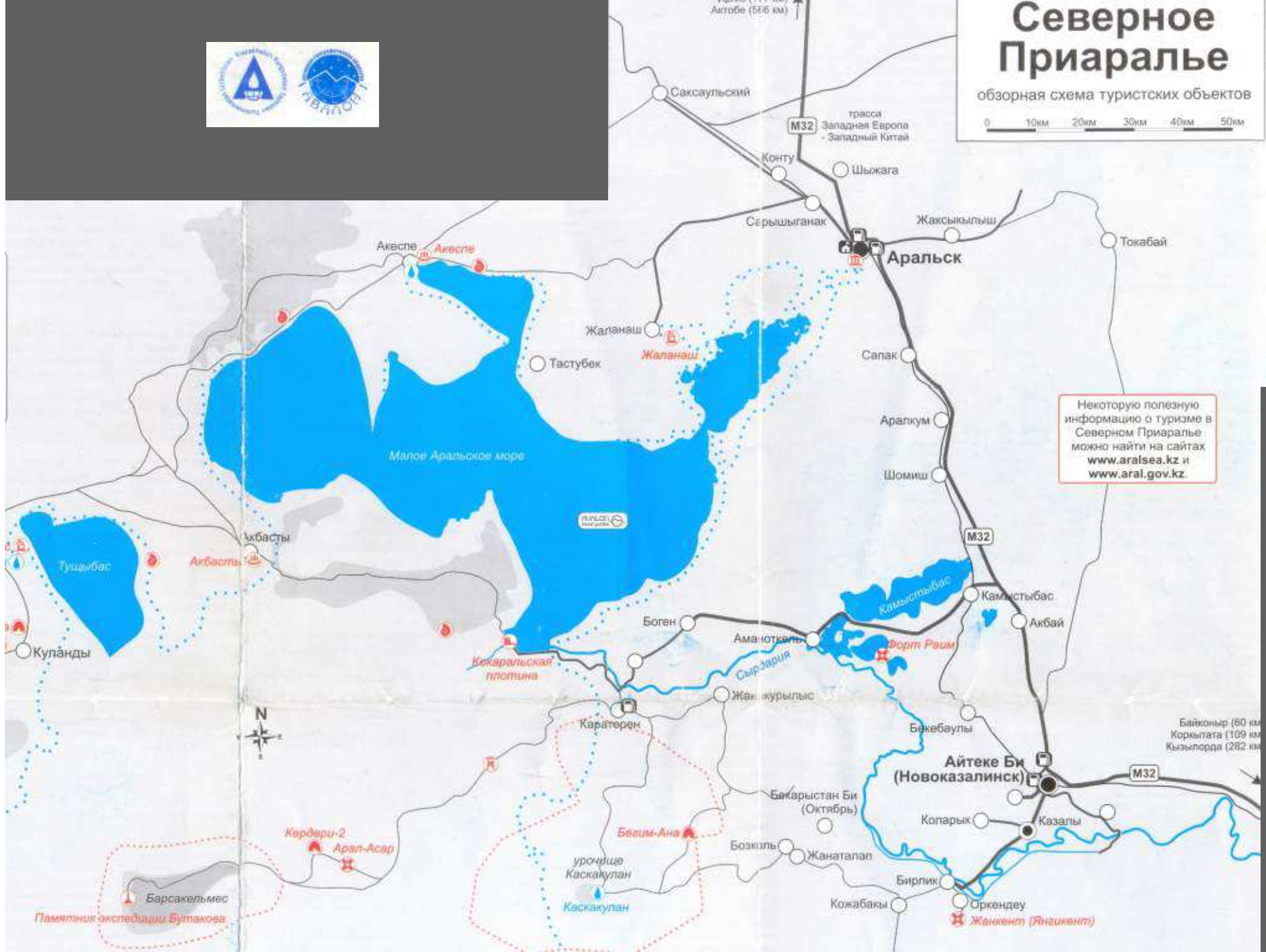
* Both are Moderate Resolution Imaging Spectroradiometer (MODIS) images captured aboard NASA's Terra satellite. The image on the left was captured on August 19, 2000, while the image on the right was captured on August 16, 2018. Both show the approximate extent, outlined in gold, of the Aral Sea in 1960. Source: NASA Earth Observatory



Северное Приаралье

обзорная схема туристских объектов

0 10км 20км 30км 40км 50км



Некоторую полезную информацию о туризме в Северном Приаралье можно найти на сайтах www.aralsea.kz и www.aral.gov.kz.

Байконур (60 км)
Коркытата (109 км)
Кызылорда (282 км)

Памятник экспедиции Бутакова



Photo by Kristopher White

Ak-espe, Kazakhstan



Photo by Kristopher White

Kulandy, Kazakhstan



Photo by Kristopher White

between Ak-basty and Kulandy, Kazakhstan



Photo by Kristopher White

Karateren, Kazakhstan



Near Tastubek,
Kazakhstan

Photo by Kristopher White

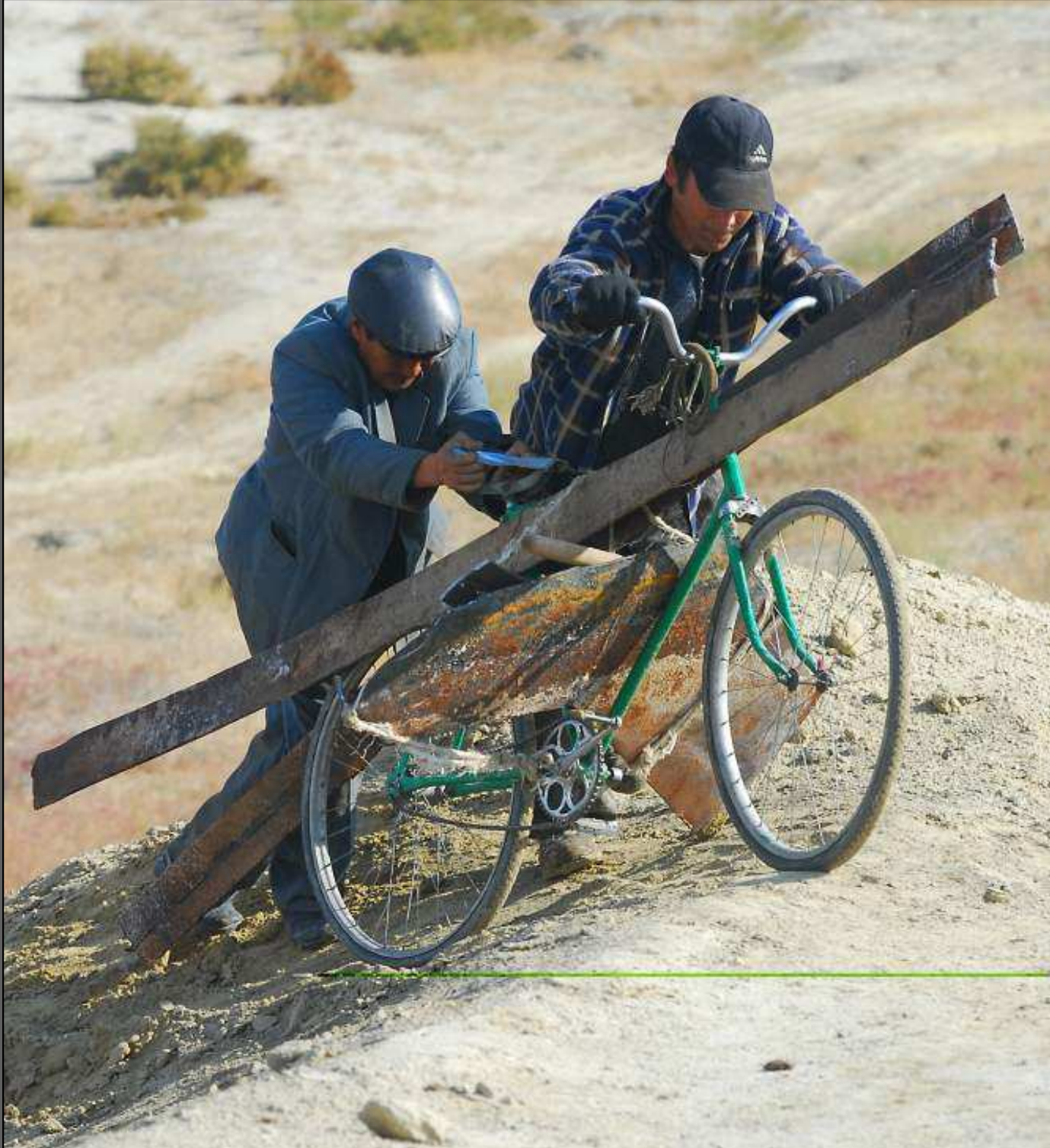


Photo by Kristopher White

Barsakelmes



Photo by Kristopher White



Aralsk, Kazakhstan

Photo by Kristopher White

A composite image featuring a man in a suit, a dam with water flowing through its spillways, and two birds flying in the sky. The man is on the right, looking towards the left. The dam is in the middle ground, with water cascading over its spillways. Two birds are flying in the sky above the dam. The overall scene is set against a blue background.

Көк арал – ғасыр жобасы

Photo by Kristopher White



Photo by Kristopher White



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Near Tastubek, Kazakhstan



Photo by Kristopher White



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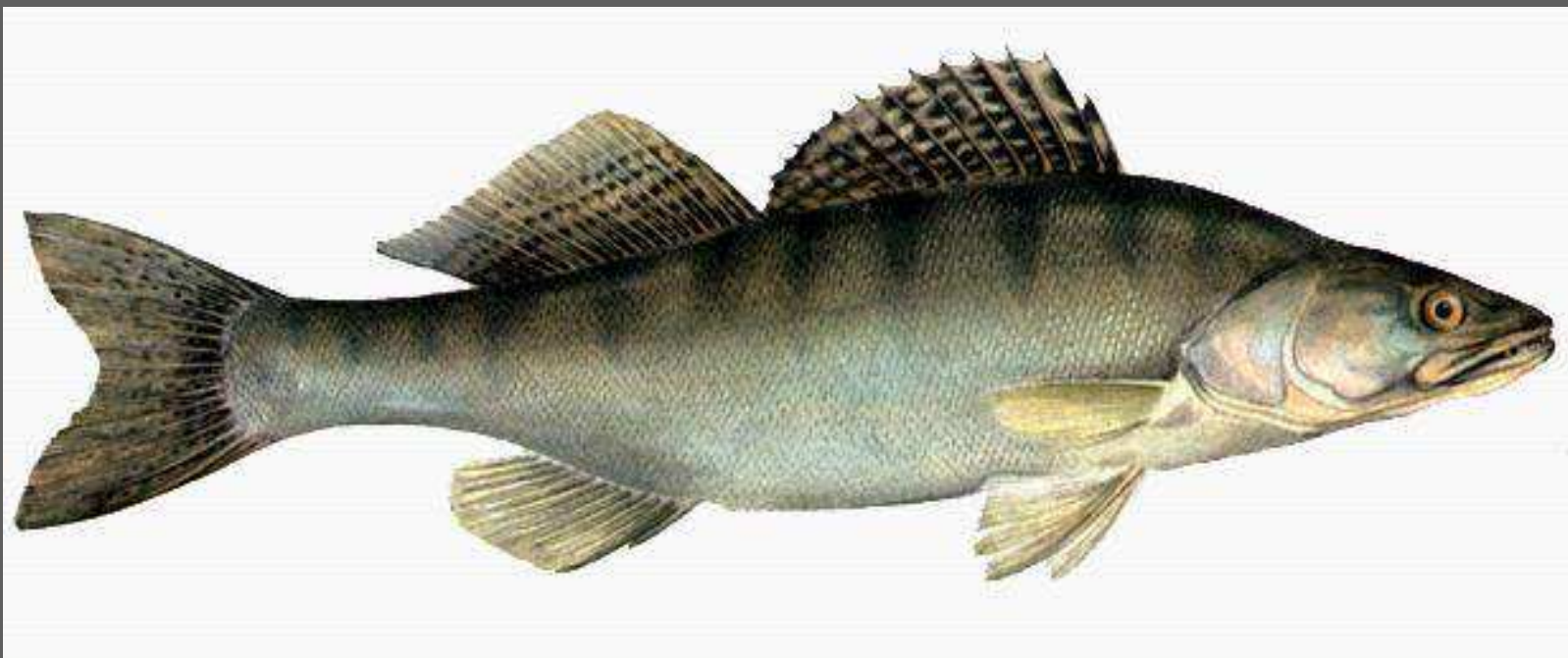


Photo by Kristopher White

Northern Aral Sea (NAS) Fish Harvests, 2005-2016

Year	Total Harvest *	Individual species harvested*							
		Flounder	Carp	Bream	Pike-perch	Roach	Asp	Saberfish	Rudd
2005	695	303	181	57	30	-	-	-	-
2006	1,360	700	190	120	70	250	30	-	-
2007	1,910	640	260	410	110	370	80	40	-
2008	1,490	410	170	360	120	340	90	-	-
2009	1,885	615	125	470	185	410	80	-	-
2010	2,810	715	115	835	245	765	70	65	-
2011	3,520	710	70	773	365	1,040	65	60	-
2012	3,176	511	82	1,229	392	774	87	101	-
2013	4,510	720	104	1,639	648	1,100	162	32	24
2014	4,674	177	80	1,836	809	1,292	138	143	93
2015	6,070	35	138	2,439	1,020	1,925	170	142	81
2016	6,000	25	108	2,456	973	1,913	123	160	114

* All fish harvest figures in metric tons. Data source: Unpublished, Kazakhstan Research Institute of Fisheries, Aralsk branch



<http://151283.ua.ali.biz/prodam-podroshchennuyu-lichinku-sudaka-q1654696>

Ріке-перч (судак)



Photo by Kristopher White



Photo by Kristopher White



Photo by Kristopher White



Photo by Kristopher White



Photo by Kristopher White

“Қазақстан - 2050” стратегиясы ДАМУДЫҢ ДАҢҒЫЛ ЖОЛЫ



Photo by Kristopher White



Photo by Kristopher White



Photo by Kristopher White



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Photo by Kristopher White

The dam and stabilization of the NAS has “improved our socio-economic level, especially for people who were once left without work, without the sea, without hope. And the fact that the sea has come back and with the development of the fishery, these people started to earn money, build houses, buy cars, educate their children, believe in the future.”

Zauresh Alimbetova, Director Barsa-Kelmes Nature Reserve

“The image of fishing villages has greatly changed. Now a lot of large houses are being built. Every fisherman has 2-3 cars. The standard of living of Aral fishermen has increased dramatically. It (the recent increase in fish harvests) has had a strong impact.”

Zaulkhan Ermakhanov, Director Kazakhstan Institute of Fisheries, Aralsk branch

“The population is increasing. Things are improving. There are new roads, a road is being built connecting China with Europe. And the number of cars has increased in Aralsk. So we have the feeling that the situation in Aralsk is very good compared with before. The fishing industry is growing, improving so I think and hope that it will continue to improve. Fishing industry and increases in construction provide hope for the future.”

Yedige, Aralsk resident

“The main source of living in our region was the sea. So of course today the living conditions have improved. In the last 4-5 years there have been positive changes throughout the region. From ecology to economy.”

Ainagul Baimakhanova, Director Aral Tenizi NGO



Photo by Kristopher White

Aralsk, Kazakhstan