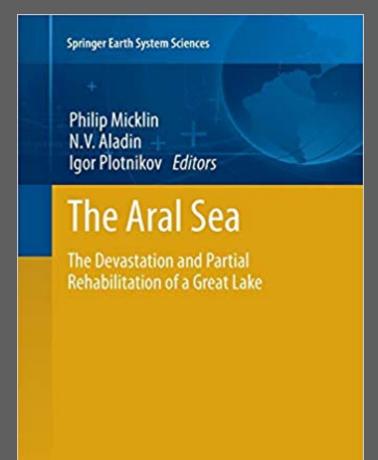
Ecological and Economic Recovery in Kazakhstan's Northern Aral Sea Region

Kristopher White KIMEP University









ROUTLEDGE STUDIES IN ENVIRONMENTAL COMMUNICATION AND MEDIA

Environmental Crises in Central Asia

R

From steppes to seas, from deserts to glaciers

Edited by Eric Freedman and Mark Neuzil

earthscan 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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"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."

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Aral Sea Reborn

Al Jazeera. 2013. Al Jazeera Earthrise http://www.aljazeera.com/programmes/earthrise/2012/07/201271912543306106.html

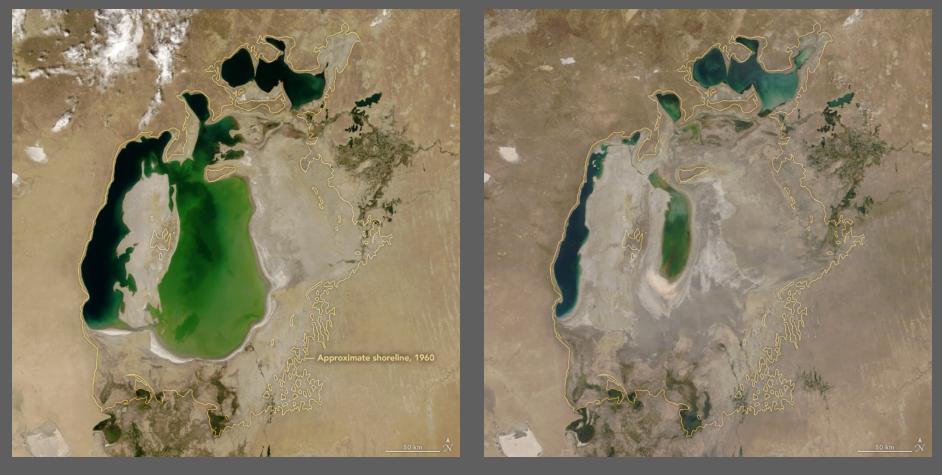
Aral Sea Recovery?

Walters, P. 2010. *National Geographic* http://news.nationalgeographic.com/news/2010/04/100402-aral-sea-story/

Return of the Aral Sea

Conant, E. 2006. *Discover Magazine* http://discovermagazine.com/2006/sep/returnaralsea

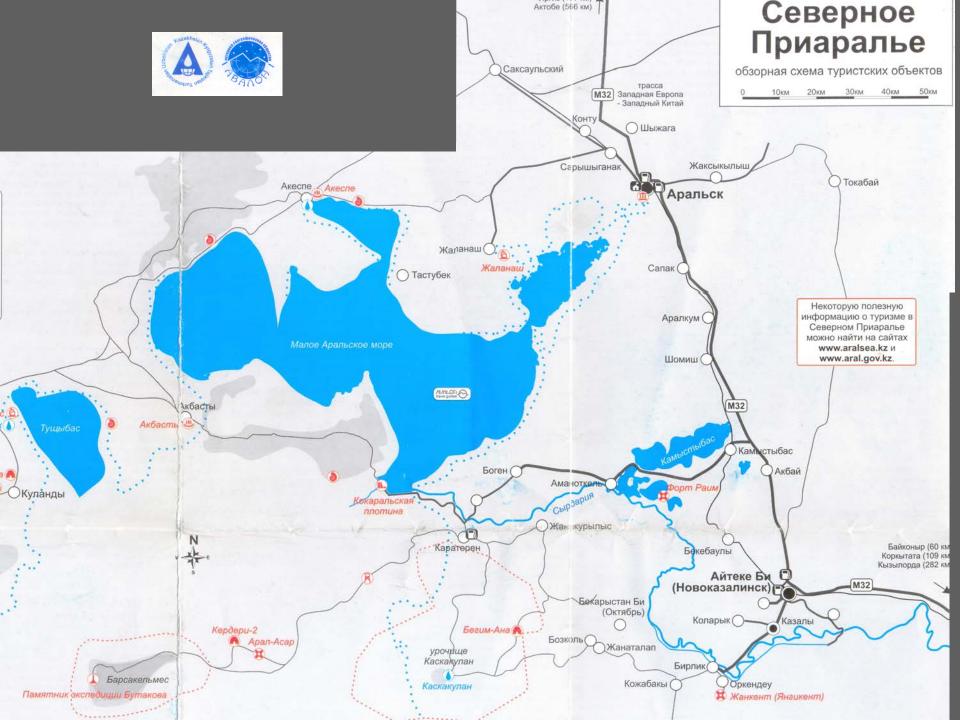
21st Century Desiccation of the Aral Sea: 2000 and 2018*



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





Ak-espe, Kazakhstan



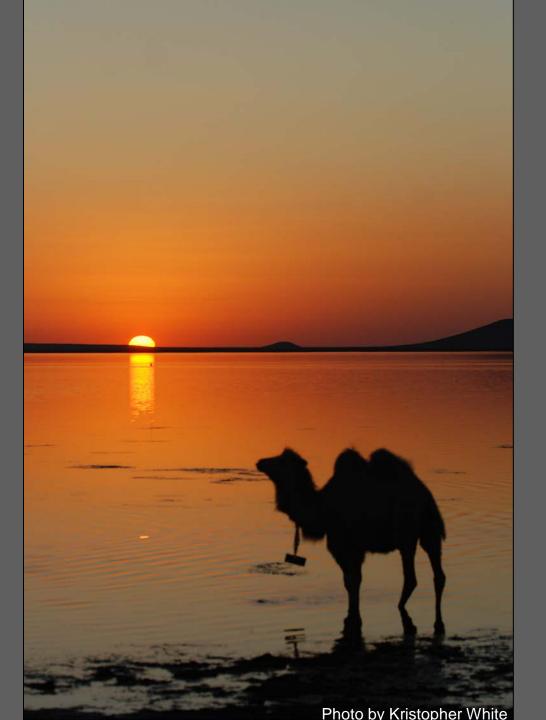
Kulandy, Kazakhstan



between Ak-basty and Kulandy, Kazakhstan



Karateren, Kazakhstan



Near Tastubek, Kazakhstan



Barsakelmes





Көкарал – ғасыр жобасы

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Near Tastubek, Kazakhstan



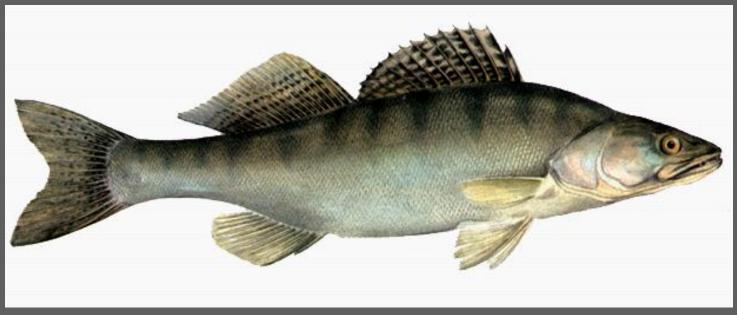




Year	Total Harvest *	Individual species harvested*							
		Flounder	Carp	Bream	Pike-perch	Roach	Asp	Saberfish	Rudd
2005	695	303	181	57	30	-	-	-	-
2006	1,360	700	190	120	70	250	30	-	-
2007	1,910	640	260	410	110	370	80	40	-
2008	1,490	410	170	360	120	340	90	-	-
2009	1,885	615	125	470	185	410	80	-	-
2010	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

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

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



http://151283.ua.all.biz/prodam-podroshchennuyu-lichinku-sudaka-g165469

Pike-perch (судак)









"Қазақстан - 2050" стратегиясы ДАМУДЫҢ ДАҢҒЫЛ ЖОЛЫ









Arthory

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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



Aralsk, Kazakhstan