

## THE TRAGEDY OF ARAL SEA, WHICH WORRIES WHOLE WORD

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**Abstract:** *The Aral Sea is considering an example of ecosystem collapse. The ecosystems of the Aral Sea and the river deltas feeding into it has been nearly destroyed, largely because of the salinity being dramatically higher than ocean water. We can say Aral sea is incurable ill for human.*

**Keywords:** *ecosystems, river deltas, Anemia*

As we know that in recent day there are so many problems with environment. For example, air pollution, water pollution etc. The tragedy of Aral sea as well. So many years ago Uzbekistan's main source of fish was Aral sea, But today, Aral sea is the biggest desert in Uzbekistan.

The receding sea has left huge plains covered with salt and toxic chemicals from weapons testing, industrial projects, and runoff of pesticides and fertilizer. Because of the shrinking water source and worsening water and soil quality, pesticides were increasingly used from the 1960s to raise cotton yield, which further polluted the water with toxins (e.g. DDT).<sup>1</sup> Industrial pollution also resulted in PCB and heavy-metal contamination.<sup>2</sup> Owing to the insufficiency of water left in the Aral sea, concentrations of these pollutants rose drastically both in the remaining water and in the dry beds. This resulted in wind-borne toxic dust that spread quite widely. People living in the lower parts of the river basins and former shore zones ingested pollutants through drinking local water and inhaling contaminated dust.<sup>3</sup> Furthermore, due to absorption by plants and livestock, toxins — many of which bioaccumulate and are not easily broken down or excreted by the liver and kidneys — entered the food chain.<sup>4</sup> Inhabitants of the surrounding areas commonly experience a shortage of fresh water, and health problems are widespread — including high rates of certain cancers, respiratory illnesses including tuberculosis (mostly drug resistant), digestive

<sup>1</sup>Whish-Wilson, Phillip (2002). "The Aral Sea environmental health crisis"(PDF).Journal of Rural and Remote Environmental Health.1 (2): 30. Archived from the original (PDF) on 9 April 2008. Retrieved 17 May 2008.

<sup>2</sup>Jensen, S.; Mozhitova, Z.; Zetterstrom, R. (5 November 1997). "Environmental pollution and child health in the Aral Sea region in Kazakhstan".Science of the Total Environment.206 (2–3): 187–193.

<sup>3</sup>O'Hara, Sarah; Wiggs, Giles; Mamedov, Batyr; Davidson, George; Hubbard, Richard (19 February 2000). "Exposure to airborne dust contaminated with pesticide in the Aral Sea region". The Lancet.355 (9204): 627–628.

<sup>4</sup>Jensen, S.; Mozhitova, Z.; Zetterstrom, R. (5 November 1997). "Environmental pollution and child health in the Aral Sea region in Kazakhstan".Science of the Total Environment.206 (2–3): 187–193.

disorders, anemia, and infectious diseases. Liver, kidney, and eye problems may also be due to the toxic dust storms. Together, this presented an unusually high fatality rate among vulnerable age groups: child mortality stood at 75 per 1,000 in 2009, while maternal mortality was 12 in every 1,000.<sup>5</sup>

The Aral Sea fishing industry, which at its peak employed some 40,000 and reportedly produced one-sixth of the Soviet Union's entire fish catch, has been devastated. In the 1980s commercial harvests were becoming unsustainable, and by 1987 commercial harvest became nonexistent. Due to the declining sea levels, salinity levels became too high for the 20 native fish species to survive. The only fish that could survive the high-salinity levels was flounder. Also, as water has receded, former fishing towns along the original shores have become ship graveyards.<sup>6</sup>

Aral, originally the main fishing port, is now about 15 kilometres from the sea and has seen its population decline dramatically since the beginning of the crisis.<sup>7</sup> The town of Moynaq in Uzbekistan had a thriving harbour and fishing industry that employed about 30,000 people<sup>8</sup> now it lies 30–90 kilometres from the shore. Fishing boats lie scattered on the dry dusty land that was once covered by water; many have been there for 20 years.

The South Aral Sea remains too saline to host any species other than halotolerant organisms.<sup>9</sup> The South Aral has been incapable of supporting fish since the late 1990s, when the flounder were killed by rising salinity levels.

When it comes to vulnerable population, Women and children are the most vulnerable populations in this environmental health crisis due to the highly polluted and salinated water used for drinking and the dried seabed.<sup>10</sup> Toxic chemicals associated with pesticide use have been found in blood and breast milk of mothers; specifically organochlorides, polychlorinated biphenyl compounds (PCBs), DDT compounds, and TCDD.<sup>11</sup> These toxins can be, and often are, passed on to the children of these mothers, resulting in low birth weight and congenital abnormalities. The rate of infants being born with abnormalities is five times higher in this region than in European countries.<sup>12</sup> The Aral Sea region has 26% of its children born at low birth weight, which is two standard deviations away from a national population study gathered by the WHO.<sup>13</sup>

Exposures to toxic chemicals from the dry seabed and polluted water have caused other health issues in women and children. Renal tubular dysfunction has become a large health concern in children in the Aral Sea region as it is showing

<sup>5</sup>Meřrak M. Health and social consequences of the Aral Lake disaster. In: Chwil M., Skoczylas M.M. (red.). Contemporary research on the state of the environment and the medicinal use of plants. Lublin: Wydawnictwo Uniwersytetu Przyrodniczego w Lublinie, pp. 99-108.

<sup>6</sup>Chen, Dene-Hern (16 March 2018). "Once Written Off for Dead, the Aral Sea Is Now Full of Life". Archived from the original on 16 March 2018.

<sup>7</sup>Bland, Stephen M. (27 January 2015). "Kazakhstan: Measuring the Northern Aral's Comeback". EurasiaNet. Retrieved 19 September 2017.

<sup>8</sup>"Uzbekistan: Moynaq village faces the Aral Sea disaster". UNICEF. Archived from the original on 10 March 2017. Retrieved 1 May 2010

<sup>9</sup>Aladin et al. 2018, p. 2234

<sup>10</sup>Ataniyazova, Oral (2003), "Health and Ecological Consequences of the Aral Sea Crisis" (PDF), 3rd World Water Forum Regional Cooperation in Shared Water Resources in Central Asia Kyoto, archived (PDF) from the original on 20 December 2018, retrieved 28 March 2019

<sup>11</sup>Whish-Wilson, Phillip (2002). "The Aral Sea environmental health crisis" (PDF). *Journal of Rural and Remote Environmental Health*. 1 (2): 30. Archived from the original (PDF) on 9 April 2008. Retrieved 17 May 2008.

<sup>12</sup>Ataniyazova, Oral (2003), "Health and Ecological Consequences of the Aral Sea Crisis" (PDF), 3rd World Water Forum Regional Cooperation in Shared Water Resources in Central Asia Kyoto, archived (PDF) from the original on 20 December 2018, retrieved 28 March 2019

<sup>13</sup>Crighton, Eric James; Barwin, Lynn; Small, Ian; Upshur, Ross (April 2011). "What have we learned? A review of the literature on children's health and the environment in the Aral Sea area". *International Journal of Public Health*. 56 (2): 125-138.

extremely high prevalence rates. Renal tubular dysfunction can also be related to growth and developmental stunting.<sup>14</sup> This, in conjunction with the already high rate of low-birth weight children and children born with abnormalities, contributes to severe negative health effects and outcomes for children. These issues have compounded by the lack of research on maternal and child health effects caused by the demise of the Aral Sea. For example, only 26 English-language peer-reviewed articles and four reports on children's health were produced between 1994 and 2008.<sup>15</sup> In addition, there is a lack of health infrastructure and resources in the Aral Sea region to combat the health issues that have arisen.

Everybody in the world try to solve this problem. First of all, uzbek population try to planted so many haloxylons in the Aral Sea place which is drought ones. The future of the Aral Sea and the responsibility for its survival are now in the hands of the five countries: Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan, and Turkmenistan. In 1994, they adopted the Aral Sea Basin Programme.<sup>16</sup> The Programme's four objectives are:

- To stabilize the environment of the Aral Sea Basin
- To rehabilitate the disaster area around the sea
- To improve the management of the international waters of the Aral Sea Basin
- To build the capacity of institutions at the regional and national level to advance the program's aims.

#### Conclusion

We hope to restoration of Aral Sea. And try to this with our best.

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<sup>16</sup>Shawki Barghouti (2006). *Case Study of the Aral Sea Water and Environmental Management Project: an independent evaluation of the World Bank's support of regional programmes*. The World Bank (Report).Retrieved 1 November 2010.

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