BLUE GOLD: WATER MANAGEMENT IS KEY TO CENTRAL ASIA'S FUTURE

BY KIMBERLY SCHUSTER

Once the fourth largest lake in the world by surface area, the Aral Sea is now a mere 10 percent of its original size. The desiccation has led to negative effects on the region's climate and ecosystems, as well as the health and livelihoods of the local people. Water is already a valuable resource in Central Asia, and the Aral Sea is a potent illustration of how continued unsustainable use could undercut stability in the region. Poor water management could intensify the harmful impacts of desertification, including dust and salt storms that blow pesticides long distances, poverty from the collapse of the fishing industry, and changes to the weather patterns in the region resulting in hotter summers and colder winters.[1] Increased environmental degradation will affect the quality of agricultural land, reducing crop yields and profits, which could ultimately lead to economic instability.[2] Inequality of water usage between upstream and downstream countries is another marked area of discontent, with upstream countries preferring to release water in winter for hydropower and downstream countries preferring increased flow in summer for irrigation.[3]

In 2018, strides have been made to boost regional cooperation with renewed dedication to collaborating on water issues. The effects of climate change will likely demand increasing high-level engagement by all five Central Asian countries on water management and environmental issues and strengthening international support for sustainability projects. With the shadow of the recent history of water disputes and the effects of climate change, the ever-dwindling supply of water could lead to regional conflicts if not sustainably managed.

COMING TO THE TABLE

Fortunately, 2018 has been a year of thawing regional tensions and discussions of water issues. The leaders of the five Central Asian countries met this year for the first time since 2009 at a summit in Astana in March.[4] After almost a decade of inaction, this was a significant, positive shift spurred by Uzbekistan's opening relations with its neighbors under the new regime of President Shavkat Mirziyoyev. The former president of Uzbekistan, Islam Karimov, preferred isolation over cooperation with neighboring states and took an aggressive stance on water issues.[5] In August 2018, the Central Asian leaders met again to discuss the fourth installment of the Aral Sea Basin Program, a long-term, comprehensive international action plan for environmental protection and regional water management.[6]

The August 24, 2018 summit culminated in a joint statement in which the five presidents agreed on the importance of cooperation on the problems of the Aral Sea Basin and expressed concern over the negative impacts of the Aral crisis and the aggrava-

tion of the negative effects because of climate change.[7] All sides also agreed on the need to adopt coordinated environmental protection measures, with a request for coordination with the UN.[8] They also noted the importance of hydropower in the region and expressed a desire to improve the organizational structure of the International Fund for Saving the Aral Sea to help improve regional cooperation on water management and protection of water resources.[9]

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DISINCENTIVES

However, political, geographic, and economic disincentives must be overcome if the region is serious about tackling its water issues. For example, Uzbekistan allows oil and gas extraction in the dry lakebed, which would be far more difficult if water levels began to rise. The oil and gas sector of the Uzbek economy constitutes 16 percent of Uzbekistan's GDP.[10] Uzbekistan's agricultural sector, of which cotton, a very water-intensive crop, is the principal agricultural export, makes up 17.6 percent of GDP and 26 percent of the labor force.[11] The importance of agriculture and oil and gas to the economy creates a disincentive to prioritize environmental concerns over economic growth.

The Rogun Dam in Tajikistan also underscores the political difficulties that can stem from commoditizing water. The dam project added to the deterioration in relations with Uzbekistan due to fears that it would cause water scarcity in summer and flooding in winter, even before construction began in 2016. Karimov was adamantly opposed to the construction of the dam, arguing that it would restrict water flows and could lead to a confrontation.[12] So far however, the new president, Mirziyoyev, has not taken a strong stance against it and has been more willing to engage on water issues.[13]

The increasing willingness to engage and the accomplishments under the Aral Sea Basin Program represent positive steps forward, but increased engagement should continue to build on the efforts of individual countries and leverage past successes. For example, Kazakhstan's Kokaral Dam, an $85 million joint project with the World Bank completed in 2005, has been successful at increasing the water volume and lowering the Sea's salinity, allowing for the reintroduction of fish.[14] There are also historical precedents that could provide models for future cooperation. Under the Soviet Union, there were water sharing agreements whereby the upstream states, Kyrgyzstan and Tajikistan, would release water for irrigation in the summer in exchange for oil and gas from the downstream states in the winter (Kazakhstan, Uzbekistan, and Turkmenistan). After the collapse of the Soviet Union, these agreements deteriorated and disputes became more common. But with the increased impacts of climate change exacerbating the issues inherent in the Aral Sea crisis, the time is ripe for renewed collaboration.

CLIMATE CHANGE

The Aral Sea is fed by glaciers and snowfields in Central Asian mountain ranges, but global climate change is causing these glaciers to shrink.[15] By 2030,

discharge from the rivers that feed into the basin will be reduced by an estimated 25-50 percent from today's level. By 2050, experts predict that all the small glaciers that feed into the rivers will be gone.[16] Meanwhile, the effect of warming temperatures on agriculture is predicted to increase water demand by as much as 30 percent by 2030.[17]

This means that states in the Aral Sea Basin will need to reduce their water usage or drastically improve the efficiency of irrigation in the face of climate change. Yet countries have been slow to adapt. So far, economic incentives to keep using water for irrigation or hydropower and, in the case of Uzbekistan, to focus on oil and gas production, have outweighed calculations about environmental costs.

If collaborative efforts are not seriously pursued to reduce these issues, the negative impacts could be dire. Disputes over water in the region could intensify, causing security concerns. The lack of water for irrigation, combined with increased salinity of the soil and more frequent dust and salt storms could damage the regional agriculture industry and thereby exacerbate poverty. Competition for water resources may deteriorate the slowly improving relationships between Central Asian countries, and existing tensions in the region, such as the various border disputes, could be drawn into conflict over water use.

Outright war between Central Asian countries over water resources seems unlikely, but in the not-so-distant future, climate change will take a heavier toll on the region, which could contribute significantly to instability. There is hope if the upward trend of regional relations continues with the August 2018 summit and collaboration on the fourth phase of the Aral Sea Basin Program. While relations are improving in Central Asia and there is a desire to solve problems regionally, tensions could resume as water resources become scarcer, suggesting that international involvement in projects would be beneficial. The five Central Asian countries should increase high-level engagement on water management and environmental protection of the Aral Sea Basin and strengthen international support for environmental projects.

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ENDNOTES

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