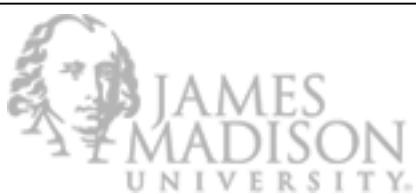


Will Conflict Arise in the Aral Sea Region in the Coming Decade?



Department of Integrated Science and Technology

Intelligence Analysis Program

Predicting Conflict: IA 480

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Key Judgments.

Uzbekistan is the most likely country in this region to have conflict.

- Immediate risk of conflict: **Low**
- Risk of conflict in 10 years: **Moderate**

Key Indicators:

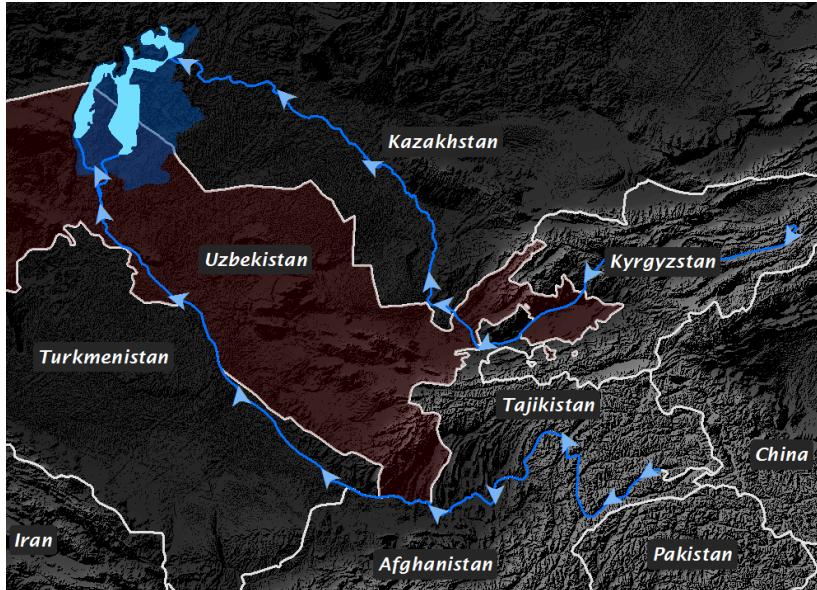
- **Water scarcity:**
 - The Aral Sea region, especially Uzbekistan, has a history of water-related conflict due to failure to follow through with deals, reservoir disputes and damming disputes.
- **Uncertain economic outlook:**
 - Uzbekistan's economic outlook is negative due to dependency on raw exports, the lowering price of these goods, as well as their conjunction with water issues. This will likely add stress and tension
- **Government destabilization:**
 - Islam Karimov has been president since the Uzbekistan's independence in 1991; his forthcoming retirement could result in political instability.

Assessment

Water Scarcity

The Aral Sea has shrunk to 27% of its historic size due to overdraw from its two source rivers: The Syr Darya which runs through Kyrgyzstan, Tajikistan, Uzbekistan and Kazakhstan and the Amu Darya which runs through Tajikistan, Turkmenistan and Uzbekistan. The water is being drained quickly mainly due to irrigation and population demand. ^[3]

Conflict has risen in the past because of water scarcity issues. One of the most common issues are countries in this region not following through with energy swap agreements. An energy swap agreement is when the country upstream allows more water to flow into a downstream country in exchange for energy, often in the form of electricity. A stark example of this deal failing was when Kyrgyzstan cut off water flows to Uzbekistan in the late 1990's; In 1999, Uzbekistan sent 130,000 soldiers to guard the reservoirs from terrorists as well as dispute their ownership. ^[3]



Created by Cory Rahman using data from NASA and NaturalEarthData

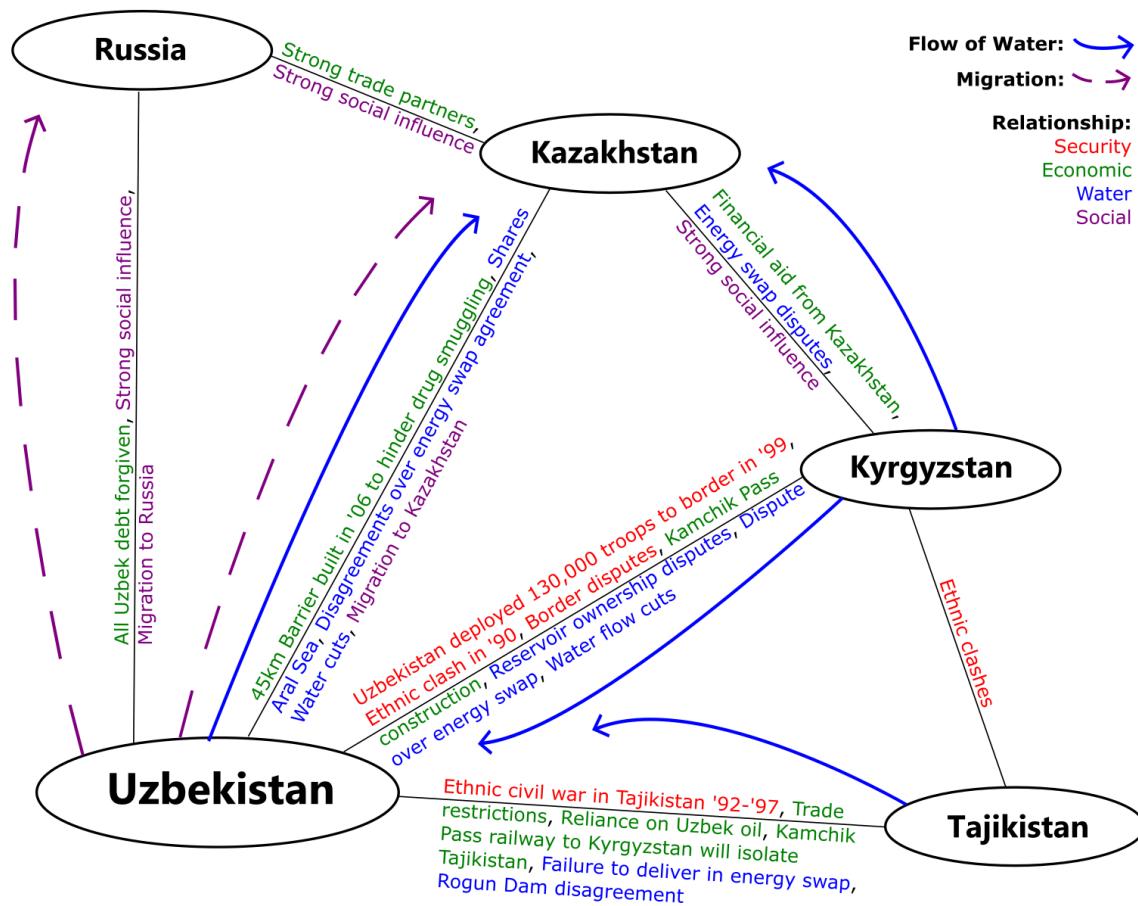
Currently one of the main water disputes is the production of the Rogun Dam. This is a dam planned for construction in Tajikistan which would eventually be used for hydroelectric power, however, it would significantly limit water flow to Uzbekistan who is downstream. The dam is not built yet, but its planning is a cause of current high tensions between Uzbekistan and Tajikistan. ^[5]

In addition to political conflict over water scarcity, the shrinking Aral Sea has longer-lasting environmental consequences that may lead to additional stress in the far-future. At its peak, the Sea had a moderating effect on the local climate. Since the Sea has shrunk, local weather can be more severe, and a negative feedback loop has formed: due to reduced evaporated moisture from the Sea reaching the Alps, its source rivers' headwaters receive less water. ^[3]

Historic Disputes & Terrorism

Conflict is not uncommon in this region; where there has been conflict before, there might be again. One of the worst conflicts in recent history was the Tajikistan civil war; from 1991-1997 rebels fought with government-supporters in Tajikistan. Uzbeks attempted to prevent the war to no avail. ^[8]

Uzbekistan has been a breeding ground for terrorist groups in the past. In the late 1990's, early 2000's, two terrorist groups formed: The Islamic Movement of Uzbekistan (IMU) and their offshoot the Islamic Jihad Union (IJU). The IMU's goal was to bring down the Uzbekistani government and create an Islamic union from China to the Caspian Sea. They have carried out attacks over the years killing over one hundred people in different Central Asia countries. They were last believed to have been fighting with the Taliban and Al-Qaeda. The IJU, also committed to bringing down the Uzbekistan government, split from IMU and currently operates out of Pakistan's Federally Administered Tribal Areas.^[2]



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The chart above lists some of the security issues (red) Uzbekistan has had with neighbors in the past, as well as water issues (blue) described previously as well as economic information (green).

Economy

Uzbekistan's economy is state-driven and heavily dependent on raw material exports. Prices for some of their main commodities, such as gas, cotton and gold, are projected to fall. Their GDP is 185.8 billion, ranked 65th worldwide, and although Uzbekistan's growth rate is about 6.8%, this is lower than its neighbors in the region and it is estimated to stay below 7% until 2020. ^[7]

Agriculture and industry (mostly raw material exports) together make up over half of their GDP ^[9]. Their main agricultural export is Cotton. This is troublesome from both a water resources standpoint and an economic standpoint. Cotton requires a particularly large amount of irrigation water in order to grow, making it a very unsustainable crop choice for a country which already has trouble getting enough water. Also, last year cotton prices had reached a five-year low as global production exceeds demand; it is reported that global reserves of cotton are as high as 107 million bales. Two other main exports in Uzbekistan are gold and gas. Gold reached a severe low at the start of 2016 at only \$34,000 per kilogram compared to over \$60,000 in July of 2011. Partly due to the United States' increased shale gas production, oil prices have been falling as well.

The economy may further suffer due to Uzbekistan's struggle to attract affluent investors. Reports of government misconduct have discredited the country to many investors in nearby powers like Russia and China ^[7]. As an example from February of this year, a Dutch telecom company settled almost \$800 million with the US due to its bribing Uzbekistani officials for special treatment ^[6]. Despite this, Uzbekistan has been increasingly strengthening its economic relations with China. In the '90s, annual trade amounted to little more than \$130 million, however, trade surpassed \$3 billion by October in 2015. ^[4]

Politics

Islam Karimov has been Uzbekistan's president since its independence in 1991. In Uzbekistani government, the majority of the power is held in the Executive seat, meaning Karimov. He has helped give Uzbekistan mild stability since its inception, however at age 78, he may very well be replaced in the coming decade. It is extremely uncertain if the eventual shift in power will have positive or negative effects, but it will likely effect all other aspects of the countries policies and problems. ^[7]

Alternate Futures

Water scarcity and the economy are likely the two most important factors for predicting conflict in Uzbekistan. The following information explores alternate futures for Uzbekistan based on these factors, listed from best-case-scenario to worst. The outcome which is most likely may depend highly on how the political situation turns out when Karimov leaves office.

A diversified economy paired with sustaining water resources would be the best-case scenario for Uzbekistan. Sustained water would allow for life and agriculture to continue, while a diversified economy would allow the country to not rely on just agriculture and exports as much. Uzbekistan could very well provide for its people as well as protect the environment if both of

these goals are met. A diverse economy with sustaining water resources would result in a very low chance of conflict.

A diversified economy would help mediate the effects of depleting water resources. While not an ideal situation, if the economy is diversified by entrepreneurship and foreign investment, a reduction in crop yields caused by water resource issues may not prove fatal for the country. If the economy is diversified enough, it may even be possible to reduce water consumption and start letting the aquifers recharge. This situation would have a moderately low chance of conflict.

A stagnating economy paired with sustaining water resources would allow Uzbekistan to survive, however, the country would not develop as well and there would be less buffer for future tensions. Sustaining water resources would allow for agriculture and life to persist as it is, but Uzbekistan would not be as prepared for future tensions such as natural disaster, disease or political upheaval. This situation would result in a moderately low chance of conflict.

A stagnating economy paired with depleting water resources would cause intense stress and tension in the region. After a decade or two of using the same economic strategy, prices of Uzbekistan's main exports such as cotton and gold will have dropped enough to cause hardship. A lack of water would form a negative feedback loop with crop production, causing reduced crop yield. The stress caused by these two outcomes together would result in a moderately high chance of conflict.

Conclusion

Uzbekistan was chosen as the most likely place for conflict to arise due to its water scarcity and economic issues, conflict with neighboring countries, and uncertain political future. Conflict is not likely to occur in the immediate future. However, there is a moderate chance of conflict in the coming decade due stress caused by poor environmental and economic outlooks. These issues are compounded by an uncertain political future: President Karimov's impending leave from power.

This report has a moderately high level of confidence. A wide range of sources were utilized, denial and deception were unlikely, and structured analytic techniques were adhered to.

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Bibliography

- 1 Afonso, Swansy; Plunging Cotton Prices Spurring Farmers to Reduce Planting, Bloomberg, 2014-11-25. URL: <http://www.bloomberg.com/news/articles/2014-11-25/plunging-cotton-prices-seen-spurring-farmers-to-reduce-planting>
- 2 Central Asia Terrorism, National Counterterrorism Center. URL: https://www.nctc.gov/site/groups/central_eurasia.html
- 3 Chaterjee; Case Study 4: The Aral Sea Basin, The University of Texas, 2007-07-12. URL: http://www.caee.utexas.edu/prof/mckinney/ce397/Readings/case-study4_Aral_Sea.pdf
- 4 Gold Price Chart, BullionVault, 2016. URL: <https://www.bullionvault.com/gold-price-chart.do>
- 5 Putz, Catherine; Uzbekistan Still Hates The Rogun Dam Project, The Diplomat, 2015-08-04. URL: <http://thediplomat.com/2015/08/uzbekistan-still-hates-the-rogun-dam-project/>
- 6 Schreck & Eckel; VimpelCom Agrees To Pay \$795 Million To Settle Uzbek Bribery Claims, Radio Free Europe / Radio Liberty, 2016-05-03. URL: <http://www.rferl.org/content/vimpelcom-fine/27560774.html>
- 7 Stronski, Paul; Uzbekistan at Twenty-Five: What Next?, Carnegie Endowment for International Peace, 2016-03-21. URL: <http://carnegieendowment.org/2016/03/21/uzbekistan-at-twenty-five-what-next/ivpj>
- 8 Tajikistan Civil War, GlobalSecurity.org, 2013-03-14. URL: <http://www.globalsecurity.org/military/world/war/tajikistan.htm>
- 9 Uzbekistan, CIA World Factbook, 2016-04-26. URL: <https://www.cia.gov/library/publications/the-world-factbook/geos/uz.html>