

The Rogun Dam: Regional Conflict and Opportunity

CENTRAL EURASIA STANDARD

MAY 2013

Fresh water resources play an increasingly important role in the stability of economies and states. Population growth, climate change and industrial needs exacerbate demands for water so, as is the case with all fundamental natural resources, geopolitical concerns arise. The construction of the Rogun Dam in Tajikistan is a significant energy event for Central Asia and water conflict around the world. Our analysis identified four key indicators that will shape the dam's reverberations: electricity and water supply, big personality, local politics and extreme weather. This paper will begin with a contextual review of water conflicts, Central Asia's history with respect to water-energy issues, and the key players involved in the ongoing hostilities. It will then show how the indicators foreshadow escalating conflict between Uzbekistan and Tajikistan; heightened international attention; regional power balancing; and the necessary creation of unprecedented multilateral agreements.

Impending Water Conflicts

The UN Intergovernmental Panel on Climate Change announced that "water and its availability and quality will be the main pressure on and issue for societies and the environment under climate change."¹ Rising demand for water is projected to double every 20 years.² USAID predicts that 2.8 billion people will be living in water scarce or stressed regions by 2025. Already, 50% of world's hospital beds are occupied by people suffering from water-related diseases and 90% of disaster-related deaths are water-related. Given current borders, 276 river basin watersheds are shared by at least two countries, 60% of which lack any type of agreements governing shared water resources.³

¹ Kasten, Tim, "UN-Water views on Climate Change," UN-Water Activities, http://www.unwater.org/activities_Climate_Water.html

² "Water Facts & Water Stories from Across the Globe", The World Water Organization, http://www.theworldwater.org/water_facts.php

³ "The Global Water Crisis", USAID, http://transition.usaid.gov/our_work/cross-cutting_programs/water/global_water_crisis.html

The Rogun Dam is one of the most prominent examples of water conflicts due to the unbalanced water endowments of Central Asia and the vociferous rhetoric exchanged between Tajikistan and Uzbekistan. The US Intelligence Community noted in a 2012 report that the Amu Darya River Basin of Central Asia and the Brahmaputra of India, China and Bangladesh face “Inadequate river basin management capacity” defined as the “strength and resilience of institutional factors, such as treaties and river basin organizations that can provide stability, increase cooperation, and mitigate political grievances over water.” The Vakhsh River, a tributary of the Amu Darya basin, faces “inadequate water agreements, degradation of water quality and disruption of flows and power water management.”⁴

Water disputes are not a new phenomenon. States, nations and tribes have long used water as a political tool. To name but a few instances, Malaysia has often threatened to cut off Singapore’s water supply during negotiations and during times of political disagreement.⁵ In 2000, Kyrgyzstan and Uzbekistan cut off water to Kazakhstan for coal delivery delays and debt nonpayment, respectively.

Water is a proven source of conflict. In 2002, Indian police killed 2 and injured 25 Kashmir villagers fighting over local water rights. The 2007, Israeli sanctions led to a water shortage in Gaza precipitating severe health risks for the residents of Gaza.⁶ In 2012, a border clash between Mali Dogon villagers and Burkina Faso Fulani herders over grazing land and water led to the deaths of 30 people.⁷

Unlike previous conflicts, however, the Rogun Dam conflict has the necessary ingredients to ignite a full state-on-state water war. Consequently, the project will also stimulate the international community to strengthen, deepen and refine its best practices for mitigating water-based conflict. The two states

⁴ “Global Water Security”, Intelligence Community Assessment, Feb. 2, 2012.

http://www.dni.gov/files/documents/Newsroom/Press%20Releases/ICA_Global%20Water%20Security.pdf

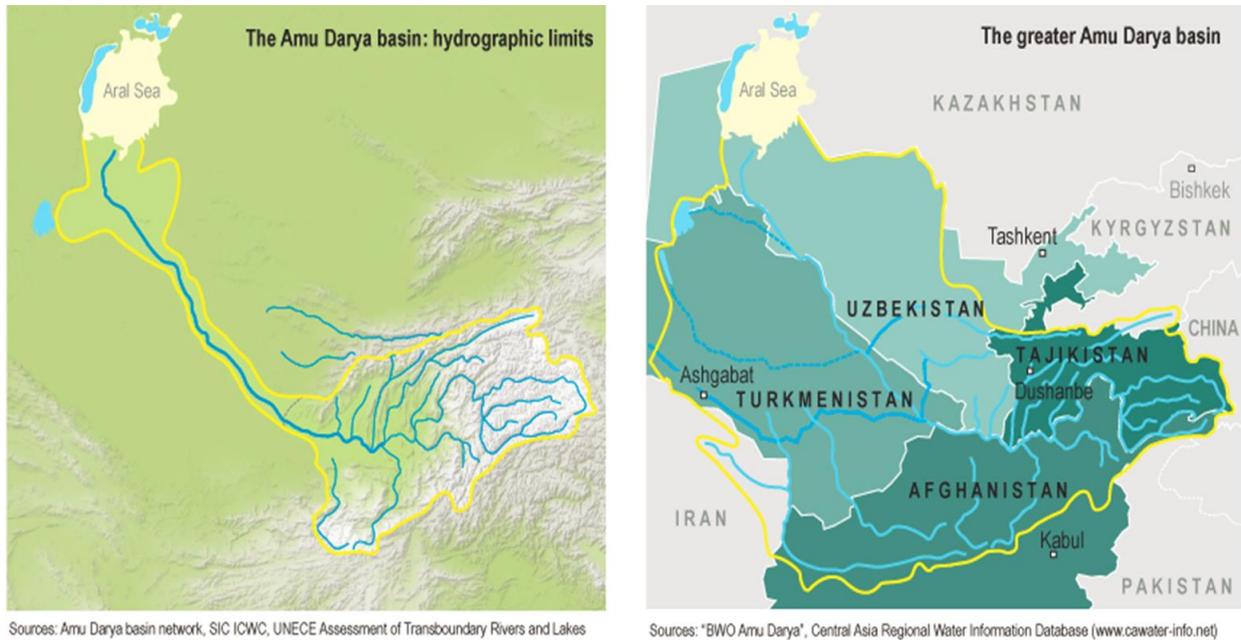
⁵ Water Conflict Chronology List, Pacific Institute, <http://www.worldwater.org/conflict/>

⁶ “Gaza siege puts public health at risk as water and sanitation services deteriorate warns Oxfam”, Oxfam International, <http://www.old-adalah.org/newsletter/eng/nov07/oxfam.pdf>

⁷ “Tribe clash kills 30 along Mali-Burkina Faso border”, Xinhuanet.com, May 25, 2012, http://news.xinhuanet.com/english/world/2012-05/25/c_131611541.htm

pushing for conflict and the international community struggling for peaceful resolution will jointly lead to a heightened international focus on water-energy issues in Central Asia. Given the severity of the brewing conflict in the region and the impending consequences of global warming, the situation will necessarily breed new approaches to combatting future international water-energy crises.

Figure 1 Amu Darya Basin



Independent and Co-Dependent States

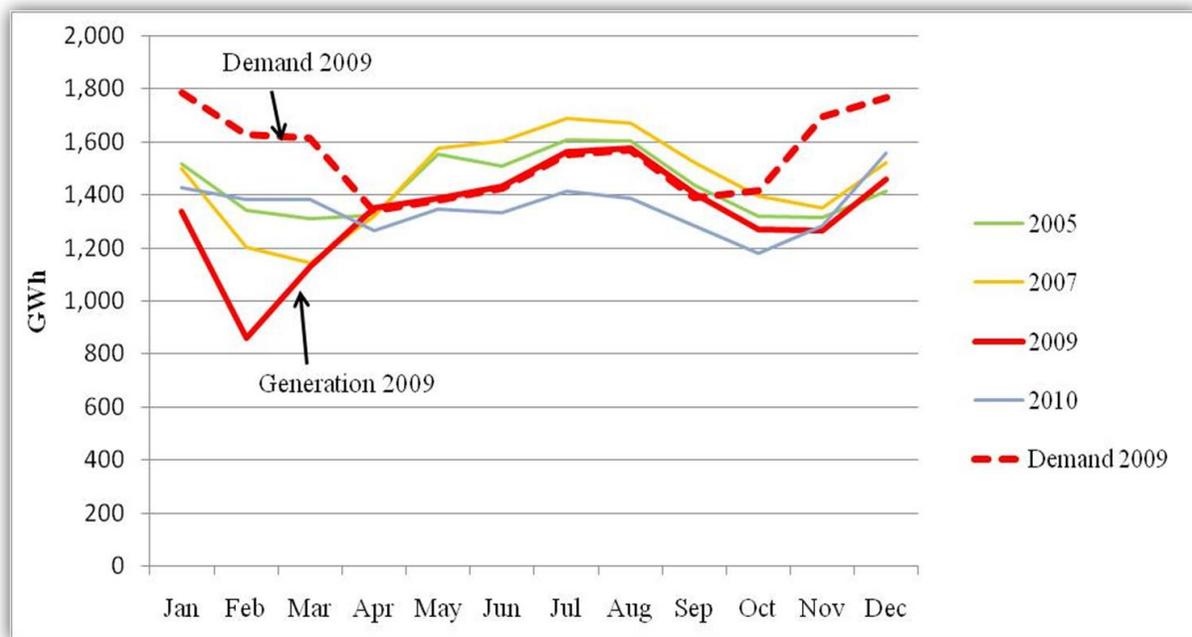
The dramatic shift in the early 1990s from a unified Soviet economy to one of many states with radically different resource endowments created an environment primed for conflict. The United Nations Develop Programme provides a clear description of the situation at this time.

“With independence, as each country began to redefine its own economic priorities, it became evident that their respective goals conflicted regarding for what purposes water should be used. All the basin states except Kazakhstan intended to increase their amount of irrigated land to meet the mounting food requirements of their growing populations. ...Because of the asymmetries of capabilities and interests between the upstream and downstream states in

Central Asia following the Soviet Union’s collapse, it was expected that acute conflict over water would ignite among the newly independent states in the immediate years after independence.”⁸

Suffering still from these asymmetries, Tajikistan, the poorest country in Central Asia, faces frequent and debilitating power shortages (see Figure 2⁹), the most severe of which occurred during the winters of 2008-2009 and 2011-2012. Authorities employed rationing and citizens had to cram activities that required power into those few hours of the day when power was available. Although Tajikistan remains physically connected to a larger regional electricity grid developed by the Soviets to facilitate continuous supply, trade in electricity no longer occurs automatically within the Commonwealth of Independent States (CIS). In 2009, Kazakhstan and Uzbekistan withdrew from the international electricity trade system amid complaints of Tajikistan illegally overdrawing energy.

Figure 2 Tajikistan's 2009 Electricity Deficits (2009)



⁸ Weinthal, Erika, “Water Conflict and Cooperation in Central Asia”, United Nations Development Programme, 2006. <http://hdr.undp.org/es/informes/mundial/idh2006/trabajos/Weinthal%20Erika.pdf>

⁹ “Tajikistan’s Winter Energy Crisis: Electricity Supply and Demand Alternatives,” World Bank, <http://go.worldbank.org/CZ9XNRW880>

The cost of Tajikistan's gas imports from Uzbekistan has been steadily rising in recent years. The resulting import limitations imposed by Uzbekistan, its key trade partner in natural gas, due to Tajikistan's inability to pay have made winter shortages commonplace. Electricity trade is now based on regularly negotiated agreements between states that often lead to cut offs. Tajikistan's energy infrastructure is largely managed by the state-run company Barki Tojik which requires frequent subsidization due to poor management and populist pressure preventing it from raising prices to cover costs. In 2003, Barki Tojik recovered just 24% of its operating costs in revenues.¹⁰ Rather than focusing on energy efficiency, pricing reform or any number of adaptive strategies, President Emomali Rahmon's government is dead-set on developing the Rogun Dam to eliminate Tajikistan's reliance on its neighbors and make it a viable electricity exporter to the region.

The riparian geography of Central Asia overlaid with the region's ethnic and national borders predisposes the region for conflict. While Tajikistan and Kyrgyzstan to the south-east enjoy the vast majority of rainfall and glacial melt, downstream Kazakhstan, Turkmenistan and Uzbekistan remain woefully dependent on these flows. Soviet agricultural engineering, designed to obtain "cotton independence" for domestic and export purposes exacerbated the disparities, drawing heavily on the parched Amu Darya and Syr Darya River systems. Acreage devoted to cotton swelled and peaked in 1980 creating a grossly inefficient regional system highly dependent on massive amounts of water from Tajikistan and Kyrgyzstan. As much as 60% of the water diverted for cotton production disappeared en route to the irrigated fields as it wound its way across the desert plains of Turkmenistan and Uzbekistan.¹¹

¹⁰ Olcott, Martha Brill, "Tajikistan's Difficult Development Path", 2012, pg. 233.

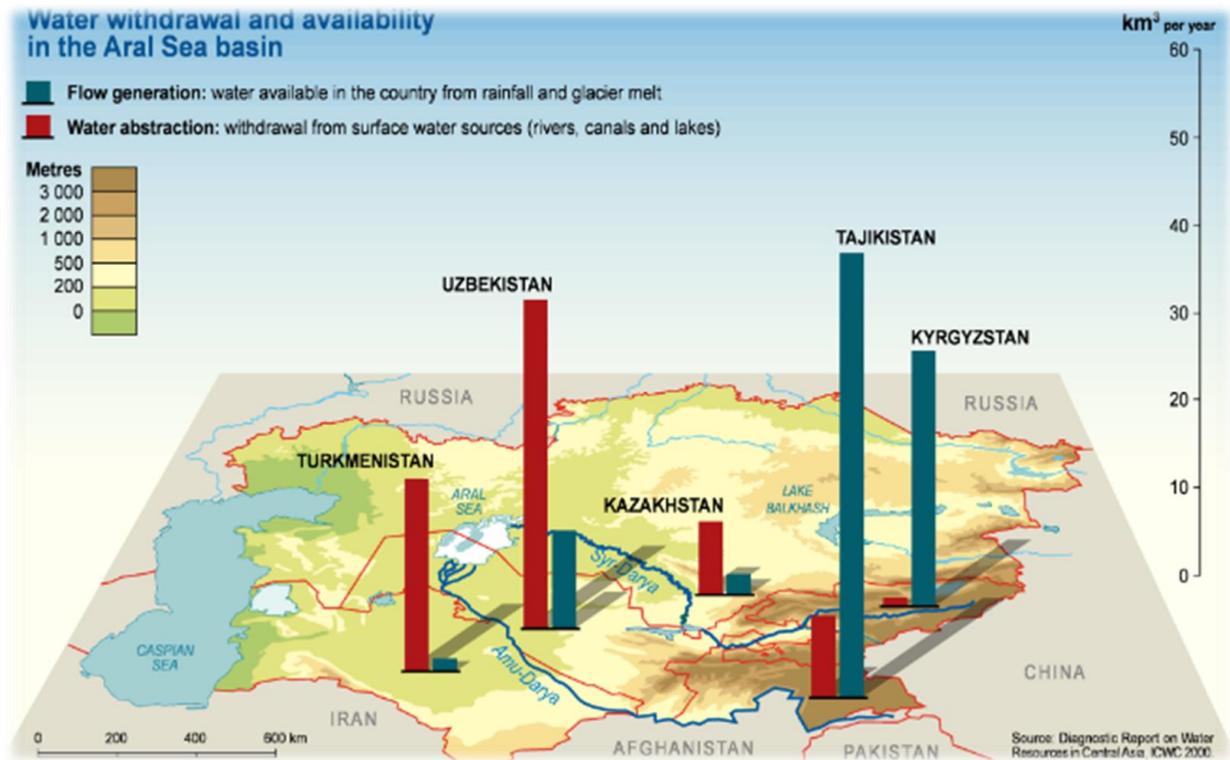
¹¹ Kandiyoti, Deniz, "The Cotton Sector in Central Asia: Economic Policy and Development Challenges", University of London, 2007. <http://www.doi.gov/ilab/programs/ocft/pdf/20080605a.pdf>

Uzbekistan claims that the Rogun Dam would seriously impact fresh water flow levels and, therefore, its harvests, economy, state tax revenues and general access to fresh water. It is presently the world's fifth largest cotton exporter.¹² Uzbekistan has received widespread international criticism for its reliance on water-intensive agriculture and the use of child forced labor during annual harvests.

Attempts at Water Cooperation: A History of Disappointment

Following the fall of the Soviet Union, the nations of Central Asia recognized the need to address the severe unequal distribution of water resources in the region. The five Central Asian republics signed an agreement in February of 1992 to continue Soviet water sharing practices, thus creating the Interstate Commission for Water Coordination (ICWC). Notably, however, the agreement only allowed the ICWC

Figure 3 Central Asia: Water Flow and Abstraction



¹² Economy of Uzbekistan, CIA Factbook, April 15, 2012, <https://www.cia.gov/library/publications/the-world-factbook/geos/uz.html>

to set water allocations, but not to require provisions of energy supplies to the upstream states, establishing a system of benefits for some and strictly costs for others. The Nukus Agreement of 1995 also fell short of cementing an agreed upon framework. The Central Asian states proceeded to reach a separate agreement in 1998, in which Kazakhstan and Uzbekistan paid for electricity and irrigation, while Tajikistan and Kyrgyzstan used those revenues to pay for energy during the winter. This arrangement broke down in 2002, as Kyrgyzstan demanded higher electricity prices to compensate for rising oil and gas costs.¹³ Overall, the region has demonstrated a proclivity for abiding by multi-state agreements only when it is convenient to do so.

Background on the Rogun Dam

If built to the full height planned by the Soviets, Rogun will be the highest in the world standing an impressive 335 meters tall. Although relatively small in generating capacity compared to massive hydroelectric power plants such as the Three Gorges dam in China or the Itaipu dam shared between Brazil and Paraguay, Rogun would be a game-changing asset in Tajikistan and possibly Central Asia. The dam would create a 13.3 cubic km reservoir and enable 3,600 MW in generating capacity or 13.3 billion kWh in annual production at an estimated cost of approximately \$2.2 billion.¹⁴ A number of smaller hydroelectric projects in Tajikistan and Kyrgyzstan are awaiting Rogun approval before they are completed.¹⁵

¹³ Weil, Stephen, "Tit for Tat: The Evolution of Non-Cooperation over the Rogun Dam", Center for Strategic and International Studies, February 1, 2012. <http://csis.org/blog/tit-tat-evolution-non-cooperation-over-rogun-dam>

¹⁴ Keene, Eli, "Solving Tajikistan's Energy Crisis", Mar. 25, 2001. <http://carnegieendowment.org/2013/03/25/solving-tajikistan-s-energy-crisis/fta8>

¹⁵ Energy Specialist, World Bank, 2013

Rogun was first conceived by Soviet engineers from 1965 – 1972, gaining formal endorsement in Gosplan USSR No. 21 in 1974.¹⁶ Construction then began on the Vakhsh River (Figure 1¹⁷ in 1980s, but was halted in 1993 after the collapse of the Soviet Union and a major flood that made construction unfeasible.¹⁸ In 2004 President Rahmon resurrected the project and awarded construction rights to Russian Aluminum giant, RusAl. Construction was halted in October of 2006, however, and the contract formally canceled in August of 2007 over disagreements over the final height, ownership rights and materials to be used.¹⁹

In late 2007, Tajikistan called on the World Bank to engage with the Rogun project. Fully aware of the water-related tensions brewing in Central Asia, the Bank launched the Central Asia Energy-Water Development Program (CAEWDP) noting that “energy-water linkages are inextricable from perceptions of national security, regional stability and economic growth.”²⁰ With respect to Rogun specifically, the bank agreed to evaluate the economic, social, engineering and environmental impacts in two separate reports: Techno-Economic Assessment Study (TEAS) and an Environmental and Social Impact Assessment (ESIA). Findings are due out in the summer of 2013.

Indicators

¹⁶ “History of Rogun and water and energy relations in Central Asia”, Avesta TJ, Nov. 25, 2011.

<http://www.avesta.tj/eng/rogun/1142-history-of-rogun-and-water-and-energy-relations-in-central-asia.html>

¹⁷ Stern, David, “Tajikistan Hopes Water will Power its Ambitions”, New York times, Aug 31, 2008.

http://www.nytimes.com/2008/09/01/world/asia/01tajikistan.html?_r=0

¹⁸ Weil, Stephen, “Tit-for-Tat: The Evolution of Non-Cooperation over the Rogun Dam”, Center for Strategic and International Studies, Feb. 1, 2012. <http://csis.org/blog/tit-tat-evolution-non-cooperation-over-rogun-dam>

¹⁹ “RuSal Axed from Rogun Power Station”, Sept 11, 2007. <http://iwpr.net/report-news/rusal-axed-rogun-power-station>

²⁰ “Fact Sheet: World Bank Support for Energy and Water in Central”, The World Bank,

<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/0,,contentMDK:22781018~menuPK:2246556~pagePK:2865106~piPK:2865128~theSitePK:258599,00.html>

Supply, Big Personality, Local Politics and Extreme Weather signal escalating conflict, heightened international attention, regional power balancing and the necessary creation of unprecedented multilateral settlements.

Supply

Supply factors into the Rogun Dam situation both in terms of electricity and water. Lacking operational natural gas or oil reserves, Tajikistan depends on imports from Uzbekistan to power its industry, heat homes and illuminate the country. Tajikistan currently faces an electricity deficit of approximately 2 billion kWh annually,²¹ which arises from a lack of available hydropower during the late fall through early spring. Owing partially to a series of Uzbek blockades, it has been estimated that 70 percent of the Tajik population experiences blackouts during the winter months.²² The potential solutions to such a deficit are numerous and include bringing new production online, modernizing the energy grid, and electricity pricing reform to reduce the moral hazard associated with overconsumption to name but a few. None weighs as popularly in the minds of Rahmon or the Tajik people as Rogun, which alone could provide 13.3 billion kWh of annual electricity. Not only would this solve Tajikistan's electricity deficit, it would also allow the impoverished nation to export excess production to its neighbors during warmer months – a tempting notion given Tajikistan's historical debtor status in the region.

Uzbekistan suffers from its own supply deficit in terms of water. 11% of its territory is intensely irrigated with agriculture making up 18.5% of its total 2012 GDP, leaving it extremely vulnerable to changes in water supply. Although its harvests have decreased in recent years, Uzbekistan is still the world's 5th

²¹ Weil, Stephen, "Tit for Tat: The Evolution of Non-Cooperation over the Rogun Dam", Center for Strategic and International Studies, February 1, 2012. <http://csis.org/blog/tit-tat-evolution-non-cooperation-over-rogun-dam>

²² Botting, Alexander, "Rogun Dam: The Waiting Game", Mar. 6, 2013.

<http://www.diplomaticourier.com/news/topics/energy/1376-rogun-dam-the-waiting-game>

highest producer of cotton and the 6th largest exporter.²³ The Rogun Dam could pose a significant threat to a key staple of the Uzbek economy, a point that President Karimov mentions often in public circles. If Uzbekistan does not adjust its agricultural policies and water usage, the Rogun Dam's effects on seasonal flow levels could land a \$609 million hit to Uzbekistan's GDP, the equivalent of 2.2%.²⁴ While water saving technology and water waste mitigation policies coupled with agricultural adaptation could significantly soften the blow, like Rahmon, President Karimov prefers to focus his energy on Rogun as an imminent threat to Uzbek livelihood.

Big Personality

Uzbekistan's President, Islam Karimov, also known as "Big Papa" to Uzbeks, rarely passes up an opportunity to voice his loud and strict opposition to Rogun. He is the oldest ruler of the five Central Asian countries at 75 years old. Uzbekistan being the most populous country in the region is also generally viewed as the most powerful. Maintaining rule over the country since 1989, Karimov has proven himself to be a master of manipulation and power retention while keeping the country near the bottom of Transparency International's Perceived Corruption Index. Only Afghanistan, Myanmar, North Korea and Somalia ranked worse in 2011.²⁵ Transparency International's Deputy Managing Director, Miklos Marschall said,

"The really, I would say, dark situation [is] in countries like Uzbekistan and Turkmenistan, where there is hardly any accountability whatsoever. The governing elites have practically no accountability. There is no political opposition. There is no civil society. There is no free press. So these are basically almost closed societies, and that's why there is no improvement."

²³ Economy of Uzbekistan, CIA Factbook, April 15, 2012, <https://www.cia.gov/library/publications/the-world-factbook/geos/uz.html>

²⁴ Jalilov, Shokhrukh-Mirzo; DeSutter, Thomas & Leitch, Jay, "Impact of Rogun Dam on Downstream Uzbekistan Agriculture, International Journal of Water Resources and Environmental Engineering, July 13, 2011. <http://www.academicjournals.org/ijwree/PDF/pdf%202011/Sep/Jalilov%20et%20al.pdf>

²⁵ Fitzpatrick, Catherine, "Uzbekistan Ranks at the Bottom Again in Corruption Perception Index", Dec. 1, 2011. <http://www.eurasianet.org/node/64647>

Although Uzbekistan has grudgingly accepted and signed off on the World Bank's Rogun TEAS and ESIA studies, Karimov's posture to the outside world has been one of unwavering recalcitrance. Although its downstream neighbor, Turkmenistan, faces similar water implications from the dam's construction, Turkmenistan's President Gurbanguly Berdimuhamedov has deferred his voice to Karimov in the discussion.

Like most tyrants that persevere in power, Karimov has skillfully alienated, imprisoned, blackmailed or killed his political and media opposition. He has also managed to unite Uzbeks against the construction of Rogun. Discussing the potential water conflict, Karimov said, "Water resources can become a problem which leads to the sharpening of relations in the Central Asian region. The situation could deteriorate beyond only religious opposition to war."²⁶ Sharpening his rhetoric, Karimov has also stated on the record, "I won't name specific countries, but all of this could deteriorate to the point where not just serious confrontation, but even wars could be the result."²⁷ Karimov's history of supporting torture in Uzbek prisons, forced child labor, planting landmines on the Tajik border and the infamous Andijan Massacre certainly shows a lack of restraint when it comes to the use of violence to achieve political ends.

Local Politics

Despite the World Bank's best efforts to inject sound technical and economic analysis into the debate through its unprecedented studies, the discussion surrounding Rogun is largely political. Rahmon's hyperbolic rhetoric illustrates this point: "[Rogun] is of life or death importance for the Tajik people. [Karimov] fights against all Tajiks... he doesn't want our country to develop, closes roads, shuts off our

²⁶ "Uzbekistan's President talks tough against Kambarata and Rogun hydroelectric power stations," Fergana News, 11/9/2012. <http://enews.fergananews.com/news.php?id=2344&print=1>

²⁷ Nurshayeva, Raushan, "Uzbek leader sounds warning over Central Asia water disputes", Sept. 7, 2012. <http://www.reuters.com/article/2012/09/07/centralasia-water-idUSL6E8K793I20120907>

electricity in the cold of winter.”²⁸ Rahmon was referring to Uzbekistan’s growing intolerance over the last few years for late payment from Tajikistan for natural gas and electricity. Favoring the stick over the carrot, Karimov has used temporary energy and import embargoes to discourage Tajikistan from developing Rogun. In doing so, however, has simply calcified Tajikistan’s resolve to build the dam to improve energy reliability in the future so it does not have to rely on its bullying neighbor.

In its thorough study, “Tajikistan’s Winter Energy Crisis: Electricity Supply and Demand Alternatives” the World Bank identified a number of options other than Rogun to address the country’s electricity deficit. Examples included thermal production, rehabilitation of existing hydropower facilities, a lower dam to allow some of the river to flow freely, and energy importing to include a few.²⁹ Rahmon has ignored these alternatives and bound himself to the original 335-meter-tall Soviet design of the dam.

Rahmon and Karimov are not on good terms professionally or personally. In fact, according to Rahmon, the two have a quite colorful past. “I’ve argued many times [with Karimov]. We even fought twice. The first time, Nazarbaev had to drag us apart; the second time it was Kuchma.”³⁰ Although the context of these disagreements is not evident to the public, it illustrates a personal hostility between the two rulers that could trigger violent provocations and retaliations in the future.

Uzbekistan has demonstrated its willingness to exert force on its vulnerable upstream neighbor. It has used economic and transportation sanctions, including blocking rail imports from Uzbekistan to southern Tajikistan, and has denied electricity transmission from Turkmenistan to cross Uzbek territory

²⁸ Keene, Eli, “Solving Tajikistan’s Energy Crisis”, Mar. 25, 2001.

<http://carnegieendowment.org/2013/03/25/solving-tajikistan-s-energy-crisis/fta8>

²⁹ Fields, Daryl; Kochnakyan, Artur; Stuggins, Gary; Besant-Jones, John, “Tajikistan’s Winter Energy Crisis: Electricity Supply and Demand Alternatives”, The World Bank, Nov. 2012.

http://siteresources.worldbank.org/ECAEXT/Resources/TAJ_winter_energy_27112012_Eng.pdf

³⁰ “Did Rahmon and Karimov almost get into a brawl?”, New Eurasia, Jan. 28, 2010.

<http://www.neweurasia.net/politics-and-society/the-story-of-how-nazarbaev-and-kuchma-had-to-pull-apart-the-presidents-of-tajikistan-and-uzbekistan/>

to Tajikistan during outages to punish Tajikistan for its unwillingness to compromise on Rogun. Trains were halted at the border under the guise of unexplained “technical difficulties”. Uzbekistan has also planted thousands of landmines on Tajikistan’s border to supposedly prevent extremists, namely the Islamic Movement of Uzbekistan, and drug traffickers from crossing into its territory. The mines have thus far killed 76 civilians and injured 81 along Tajikistan’s northern border with Uzbekistan—a hazard Uzbekistan refuses to correct.³¹

For its part, Tajikistan has also refused to acknowledge domestic alternatives to Rogun including its recently discovered natural gas and oil reserves in the western regions south of Dushanbe. Rahmon has not mentioned the potential of “3.2 trillion cubic meters (tcm) of gas, ‘twice Norway’s proven reserves,’ in the Bokhtar Deposit.”³² With his own election coming up in fall of 2013 he is unlikely to give any ground on Rogun as it could be perceived and exploited as a sign of weakness. Although most experts predict a landslide, Rahmon is unlikely to give potential rivals a talking point until his own job prospects are secured.

The two countries also share a history of national and ethnic conflict. “Many Tajiks live in Uzbekistan and vice versa. Heated discussions in social media indicate that at least for many young people in the country, opposition to the project has acquired an important nationalist and symbolic dimension.”³³ The political animosity between the two countries has led to an aversion of intermingling across borders.

“Tajikistan has a substantial Uzbek minority and Uzbekistan is home to many Tajiks, and both cultures have a lot in common. Despite these ties, the media, civil society groups, political

³¹ Rotar, Igor, “Fresh Border Incidents Underscore Unresolved Problems in Ferghana Valley”, Jamestown Foundation, Sept. 21, 2012.
http://www.jamestown.org/programs/edm/single/?tx_ttnews%5Btt_news%5D=39874&cHash=f4f7d67303794f3dadb2899d856327c6

³² Parshin, Konstantin, “Tajikistan: Just How Much Energy Does Dushanbe Have?”, Mar. 18, 2013.
<http://www.eurasianet.org/node/66705>

³³ <http://www.cacianalyst.org/?q=node/5764>

parties and religious leaders and ordinary people have grown wary of establishing contacts with counterparts across the border for fear of being branded as traitors.³⁴

Citizens on both sides must support their bellicose leader's stances on Rogun as a patriotic duty shifting the discussion of the dam from the logical dimension into the ideological.

Karimov has also stressed safety concerns with the project. Rogun sits between the Ionakhsh and Gulizidan faults which could make it vulnerable to earthquakes. A dam collapse could expose hundreds of thousands to catastrophic floods. While experts at the World Bank say that these risks are easily manageable, until the reports are formally published the argument carries potent political weight.

Extreme Weather

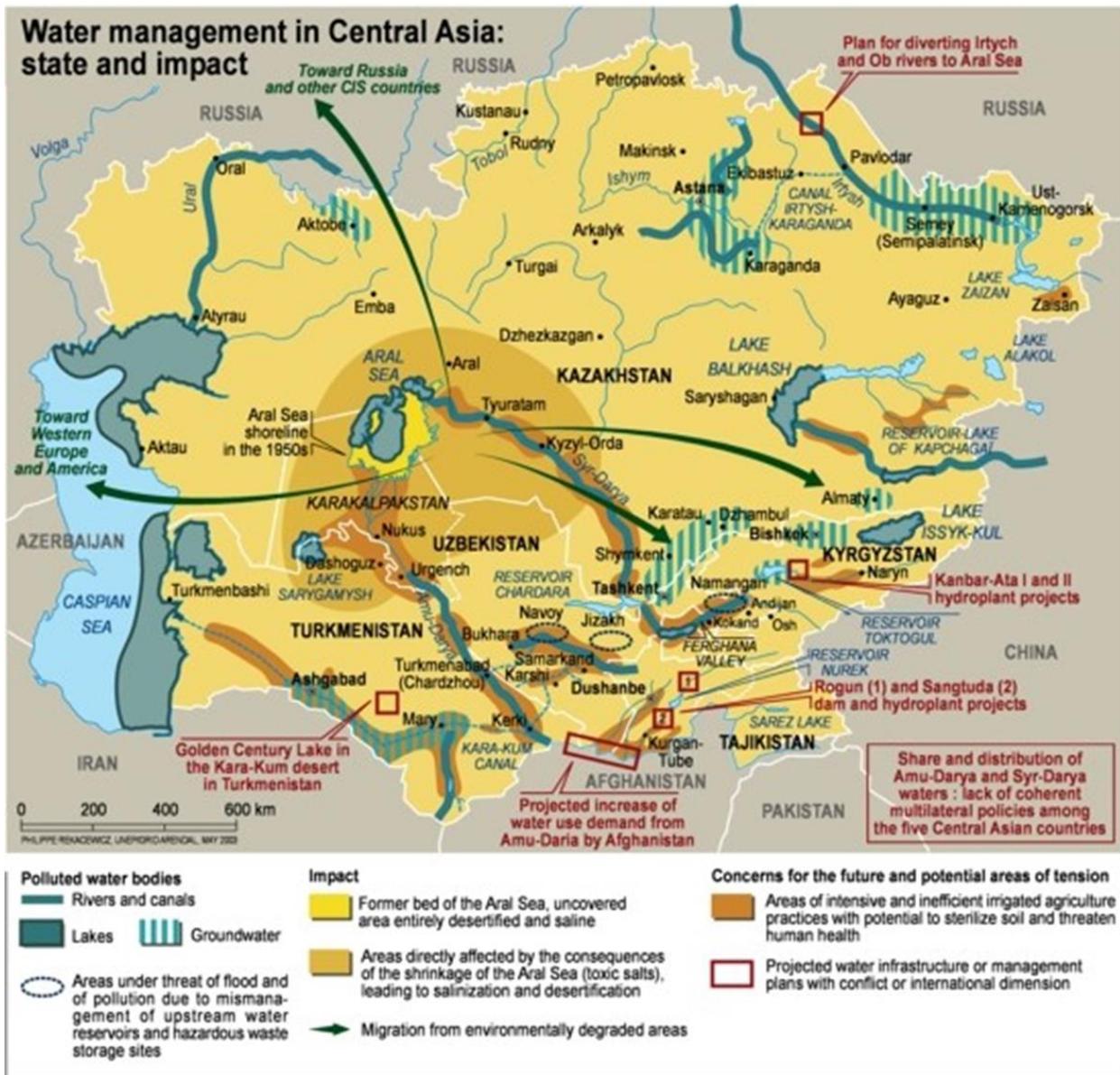
Global warming plays a powerful role in both Uzbekistan's future prospects for water and Tajikistan's approach to riparian management. If temperatures continue to rise, the Fedchenko and Abramov glaciers are likely to shrink. Temperatures in Tajikistan's high country have already risen by 1 – 3 degrees centigrade during the winter months.³⁵ Tajikistan's State Agency for Hydrometeorology notes, "It is expected that the glacial inflow to the Pyanj, Vakhsh and generally, Amudarya River will probably increase (due to intensive melting of mountain glaciers), and then, in the long-term perspective, dramatically decrease due to the glacial deficit." As glaciers shrink, Tajikistan will need to increase dam reserves to guarantee its own water and electricity supplies, leaving Uzbekistan high and dry.

With less water making its way downstream, the ultimate sufferer will be the already desiccated Aral Sea. If water levels continue to recede, the region could expect more dust storms through desertification, soil salinization, and human health impacts due to a dearth of fresh water. While the

³⁴ <http://www.groundreport.com/Politics/Gas-Row-Highlights-Tajik-Uzbek-Tensions/2945691>

³⁵ <http://www.wmo.int/pages/prog/www/OSY/Meetings/GCW-IM1/glaciers.pdf>

Figure 4 Water Management in Central Asia: state and impact



Vakhsh River contributes only a fraction of the total flow into the Aral Sea basin, global warming will lead to significant and indiscriminate water shortages across the region.

Other International Interests

Outside of the immediate region, a number of actors retain vested interests in Rogun. Russia, for one, recently committed to renewing a 7,000-person military base in Tajikistan under the auspices of protecting the region from extremist spillover following the NATO withdrawal from Afghanistan in 2014.

Its own relations with Uzbekistan have been bumpy at best (an issue it is working to correct) so it is not likely to weigh in on Rogun much less provide funding unless Tajikistan makes considerable concessions.

The US stake in the project, while less pressing given that its regional interests will likely decline, is no less precarious. While it supports economic development in the region as outlined in the “New Silk Road Strategy for Central Asia”, the US and its NATO allies depend on regional stability during the withdrawal from Afghanistan. In this case, the US is unlikely to provide diplomatic--much less financial--support to Rogun until its troops are fully removed from the region. To do so prematurely could risk souring relations with Uzbekistan, who the US depends on for transportation out of Afghanistan.

Meanwhile, the US has pledged to donate a cornucopia of military gear to Uzbekistan. As Josh Kucera of Eurasianet points out, “Tactical drones, night vision, GPS and body armor would be of limited utility in putting down another Andijan-style protest. But they would be very useful in a border conflict with a neighbor.”³⁶ While its stated goal in the region is stability, the US could very well be forsaking long term peace in Central Asia in the interests of tactical convenience during the drawdown.

From the US and NATO perspective, timing is key. The World Bank is keenly aware of the détente afforded by their studies. Those responsible for publishing the studies have received soft guidance to stall the release. As an Energy Specialist with the Bank mentioned, “We feel some pressure to make a careful and thorough review of the document and it may take a little longer. Our management is giving us a marching order not to rush.”³⁷ Another potential force delaying the studies’ release is the upcoming presidential elections in Tajikistan scheduled for fall 2013. Since Rahmon has tied his country’s future to the project, authoritative findings for or against Rogun could factor into the election’s outcome.

³⁶ Kucera, Josh, “Are the U.S. and Russia Fueling Tension Between Uzbekistan and Its Neighbors?“, Mar. 26, 2013. <http://www.eurasianet.org/node/66742>

³⁷ Energy Specialist, World Bank, 2013

Both the World Bank and the UN have also shown unusual interest in the project. As noted by Martha Brill-Olcott of the Carnegie Endowment for International Peace, “the World Bank has made an unprecedented effort at consultation with the states that could potentially have an impact on the project – with particular effort to respond to the Uzbek government’s concerns...”³⁸ Although it has kept a low profile, the World Bank’s Central Asia Energy-Water Development Program (CAEWDP) was designed specifically to address the Central Asian water-energy conflict. Meanwhile, the UN declared 2013 to be the International Year of Water Cooperation. The idea stems from a suggestion made by Tajikistan in 2010 at the UN General Assembly for the purpose of “...unifying all efforts undertaken and planned by the United Nations system, international and regional organizations, governments, civil society and entrepreneurs, in order to increase awareness of freshwater-related problems and ways to resolve them...”³⁹ The UN is also reportedly working closely with the Central Asian nations to develop a unique legal agreement for the region which Uzbekistan has agreed to join.⁴⁰

Financing for the project remains a key missing link. The World Bank has openly stated that it will not finance the project given its political sensitivity. However, countries with historical ties to Tajikistan, such as Iran, or those looking to increase their footprint in the region, such as India and China, may be more interested. The Asian Development Bank also has a robust history of supporting large engineering projects in Tajikistan and could certainly afford to foot the \$2.2 billion bill.

How the Rogun Conflict Will Reshape Geopolitics

Rogun holds a number of implications for the region and the world as a whole. Referring to the World Bank report on alternatives to Rogun, an Energy Specialist with the Bank said, “Unfortunately for

³⁸ Olcot, Martha Brill, pg. 249.

³⁹ Aslov, Sirodjiddin, “Towards the International Year of Water Cooperation, 2013”, UN Chronicle, Mar. 21, 2013. <http://www.un.org/wcm/content/site/chronicle/home/archive/webarticles2013/towardstheinternationalyear>

⁴⁰ Kucera, Josh, “Kazakhstan, UN Getting Involved in Rogun Mediation”, Apr. 2, 2013, <http://www.eurasianet.org/node/66776>

Uzbekistan, the report came up that in the long run, Tajikistan cannot go without Rogun. So Rogun, sooner or later, will pick up. There are definitely alternatives, maybe more efficient, more economic alternatives in the short run, but in the long run, Rogun will happen.”⁴¹ Accordingly, this paper assumes that the dam will indeed be built in the not-so-distant future to the full 335 meter height, kicking off four key geopolitical outcomes: escalating conflict, heightened international attention, regional power balancing and the creation of unprecedented multilateral settlements.

Conflict

The first, and most widely discussed, implication of Rogun’s construction will be a smoldering conflict between Uzbekistan and Tajikistan which will gradually escalate in the years to come. Several factors lead to the conclusion that Rogun will indeed be a growing source of water conflict in the future:

1. Both Uzbekistan and Tajikistan show no appetite for compromise. Tajikistan is determined to build the dam and has ignored alternatives to meeting its electricity deficit. Karimov, meanwhile, is not giving an inch on the issue, saying outright that Rogun is a “stupid project”.⁴²
2. Rogun would give Tajikistan significant leverage in political discussions that Karimov will surely avoid; especially given his own history of employing such leverage against Tajikistan.
3. Uzbekistan has demonstrated its willingness to use economic warfare. Given this history, continued economic and even military action in response to Rogun, which it sees as a direct threat to its own security, does not seem out of the question.
4. Climate change will continue to reduce the available water supplies creating increasing pressure for upstream Tajikistan and Kyrgyzstan to seize ever higher percentages of dwindling flows for their own consumption and power generation leaving less for Uzbekistan downstream.

⁴¹ Energy Specialist, World Bank, 2013.

⁴² Farangas, Najibullah, “Don’t Love Your Neighbor”, Radio Free Europe Radio Liberty, October 8, 2010 http://www.rferl.org/content/Dont_Love_Your_Neighbor/2185027.html

5. Central Asian nations face a crippling lack of trust when it comes to water agreements. Both the Nukus agreement of 1995 and the Syr Darya agreement of 1998, the most significant documents governing water usage, are now disregarded. As an Energy Expert with the World Bank pointed out, “These legal agreements are still there, but those countries haven’t been following these agreements since the early 2000s. It’s difficult for us to use those approaches if they’re not being followed. Everyone realizes it’s a political issue.”⁴³
6. Preliminary reports say the World Bank will bless the Rogun project, snuffing many of Karimov’s arguments against the project and potentially forcing him to resort to force to prevent Rogun.

A few factors could derail what appears to be inevitable heightened state-on-state water conflict. Islam Karimov’s age and health came into question in March of 2013 when a rumor that he had suffered a heart attack during the annual Nowruz festival ran rampant on the Internet.⁴⁴ Without an evident successor, Karimov’s exit from power could open Uzbekistan to a more peaceful discussion on Rogun. Given his strongman history, however, one would be short-sighted to bet on Karimov’s health declining as a means to peace. Both the World Bank and UN are going to unprecedented lengths to disarm the situation. However, as mentioned above, there is little reason to believe their current efforts will hold water better than their predecessors given the lack of trust and enforceability in the region.

Assuming a 335 meter Rogun, the dam’s impact on downstream flows will depend not only on climate change, but also on the filling schedule. Soviet engineers in the 1970s anticipated 17 years to fully fill the massive reservoir, while more recent project officials predict 12 years.⁴⁵ Once built, Rahmon will, according to Karimov, be in a position to desiccate downstream lands at will. Climate change and lower

⁴³ Energy Specialist, World Bank, 2013

⁴⁴ Kramer, Andrew, “Rumors About Uzbekistan Leader’s Health Set Off Succession Debate”, New York Times, April 6, 2013, http://www.nytimes.com/2013/04/07/world/asia/rumors-set-off-succession-debate-in-uzbekistan.html?ref=uzbekistan&_r=0

⁴⁵ Trilling, David, “Tajikistan: Rogun Dam a Hot Topic as Tajiks Make It Through Another Winter of Shortages”, Eurasianet.org March 12, 2009, <http://www.eurasianet.org/departments/insightb/articles/eav031309f.shtml>

glacial melt will incentivize Tajikistan to retain larger and larger percentages of the total annual flows for its own uses. The Vakhsh River provides only 25% of the total volume of the Amu Darya, so Rogun itself is unlikely to be of pivotal consequence to total downstream flows; however, given its political stature, it will remain a figure for Tajik pride and Uzbek ire. In the short run, Rahmon will try to use the fill rate as a political lever against Karimov which could incite an attack.

While Rogun itself may not hold significant downstream implications, if its success spurs the construction of many other dams on the Amu Darya and Syr Darya tributaries, their collective weight could kink seasonal flows and lead to further desertification. Foreseeing this undesirable future, Karimov will apply increasing force to preventing Rogun's construction since it is the lynchpin project in the movement toward further hydroelectric construction in the region.

International Limelight

Central Asian nations, meanwhile, are enjoying the benefit of significant international attention, expertise and funding to keep peace in the region, and peace does not come cheap. The severity of the looming conflict will continue to drum up outside funding and peace-keeping efforts for both nations. By allowing the US Northern Distribution Network to traverse its territory, Uzbekistan will maintain influence over US and NATO public opinion on the dam and command further royalties, including military aid, for stability.

On Tajikistan's side, many believe the impoverished country lacks the technical know-how to execute a project as complicated as Rogun since it is one of the worst victims of brain drain in the region.⁴⁶

Conflict, or the perceived inevitability of conflict, has and will continue to help Tajikistan attract the outside expertise necessary to complete Rogun and others hydroelectric projects. By prompting the UN

⁴⁶ Brill Olcott, Martha, pg. 252.

to declare 2013 the International Year of Water Cooperation, Tajikistan has demonstrated its prowess on the public relations front and will continue to attract aid from donor nations and organizations. Both countries have and will continue to play these cards to their full benefit, betting that the international community cannot stomach an international conflict in the region.

Regional Power Rebalancing

Relieving Tajikistan of its annual electricity deficits will deprive Uzbekistan of leverage through electricity and natural gas imports. With significant Tajik oil and gas reserves expected to come online in the near future, Uzbekistan's weight in the region will be further diminished as new supplies will compete with existing Uzbek exports. While contributing to Tajikistan's state wealth, the downward price impacts of increased electricity and natural gas supply in the market will hurt Uzbekistan. Uzbekistan faces a future of significantly weakened geopolitical clout in the region, a prospect that irks Karimov and increases the chance of a violent response to Rogun.

Refined International Water Conflict Resolution

On a positive note, conflict has and will continue to inspire innovation in the UN and World Bank. The Central Asia Energy-Water Development Program (CAEWDP) portfolio goes to extraordinary lengths to provide unbiased and thorough data, foster mutual respect between countries, mediate tense discussions and ensure all stakeholders are given a forum to voice their concerns and receive answers. Similarly, the UN Special Programme for the Economies of Central Asia places riparian conflict mitigation front and center.⁴⁷ These bodies will serve as the key force against aggression in the region and they should be prepared to apply all the technical and diplomatic expertise they can muster.

⁴⁷ "United Nations Special Programme for the Economies of Central Asia", Nov. 28, 2012. <http://northcentral-sro.unescap.org/documents/2012-SPECA-Progress-Report.pdf>

The presence of the UN, World Bank and most recently neighboring Kazakhstan in the conflict mediation process sets the stage for significant learning with respect to riparian issues. Unfortunately, as an Energy Specialist at the World Bank noted as evidence that “The global powers, the US, China, Russia, are telling us they support us, but they keep the issues at a distance. They don’t publicly take a position even if it is the best economical and technical issue.”⁴⁸ Russia in particular will be drawn into the conflict in the years to come due to its military bases, while US interests in regional stability and Chinese interests in economic development will also draw them to the cause of peace.

Numerous agreements have been made since the dissolution of the Soviet Union; however, none has succeeded in disarming tensions. With climate change bearing down on regions that may be susceptible to conflict, a proven framework for dispute resolution will be invaluable and essential.

Conclusion

Rogun marks the most significant global water-energy conflict of our time. The indicators of energy and water supply, big personality, local politics and extreme weather make it all the more susceptible to conflict. Reinforcing the dam’s international importance, Stephen Blank of the Strategic Studies Institute said, “...the Rogun Dam is bound up with larger questions that also cry out for resolution, or at least progress toward resolution, well beyond Tajikistan’s and Central Asia’s boundaries.”⁴⁹

The United Nations projects that 30 nations will be water scarce in 2025 and 18 of these will be in the Middle East and Africa⁵⁰. The international community will be called upon many times in the future to mediate the politics and economics of managing international hydroelectric agreements to meet the

⁴⁸ Energy Specialist, World Bank, 2013.

⁴⁹Blank, Stephen, “Rogun Dam Project Epitomizes Central Asian Security Dilemmas”, Jamestown Foundation, Sept. 17, 2012.
http://www.jamestown.org/programs/edm/single/?tx_ttnews%5Btt_news%5D=39852&cHash=dc1280f4b7850f9dfd3a14a84d65f4cb

⁵⁰ Arsenault, Chris, “Risk of Water Wars Rises with Scarcity”, Aljazeera, Aug. 26, 2012.
<http://www.aljazeera.com/indepth/features/2011/06/2011622193147231653.html>

often conflicting demands of regional stakeholders. Historically, successful mediation of this kind is not necessarily new, but will require keen awareness, heightened sensitivity and broad support. Referring to the Central Asian states after Soviet collapse, Weinthal noted,

“...cooperation came about in the early 1990s because of the pivotal role of international organizations that provided the necessary incentives (i.e., financial and technical assistance) to persuade these newly emerging countries to coordinate their policies to prevent acute water sharing conflicts from transpiring.”⁵¹

The international community expects conflict to worsen in the region and will devote significant attention and resources to preempting it. To do any less would certainly concede to underdevelopment and swelling strife in water scarce regions around the world. Despite the US withdrawal from Afghanistan and the lingering global economic malaise, the world superpowers will not abandon Central Asia. To the contrary, the process of obtaining a peaceful resolution to the Rogun Dam conflict, while expensive, will pave the way for a more politically balanced, economically integrated region and generate a replicable framework for international water-energy conflict resolution.

⁵¹ Weinthal, Erika, “Water Conflict and Cooperation in Central Asia”, UN Human Development Report, 2006, <http://hdr.undp.org/es/informes/mundial/idh2006/trabajos/Weinthal%20Erika.pdf>