

POLICY BRIEF

#74, JULY 2021

Resetting Water Relations in Central Asia: The Perspectives of Uzbekistan's Cooperative Foreign Policy Turn

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EXECUTIVE SUMMARY

"If they can exit the meeting with smiles and handshakes rather than scowls and accusations, it will already mark progress"² – wrote Bruce Pannier before the Central Asian Summit of 2018, a breakthrough in the region's previously hostile water relations, and he was right. Recent water-related developments in Central Asia are significant for simply taking place after almost a decade without regional cooperation initiatives. However, moving beyond the restoration of diplomatic dialogue and the promising but rather general water-related statements that followed, Central Asian countries need to take binding commitments for the practical implementation of the proposed joint frameworks. Continuing regional dialogue on transboundary water resources is a core element in this, as is the prevention of reescalation under the deteriorating conditions of water scarcity. Nonetheless, extending the practices of cooperation in a region formerly ridden with extensive tensions is not without difficulties. Leaning on technical expertise, increasing information sharing, and implementing infrastructure development projects, however, may contribute to raising cooperation to the level where the renegotiation of the Central Asian water regime may also become possible.³

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¹ Supported by the ÚNKP-20-4 New National Excellence Program of the Ministry for Innovation and Technology from the source of the National Research, Development and Innovation Fund.

² Bruce Pannier, "Why This Central Asian Summit Could Be Different," RFE/RL (2014); <https://www.rferl.org/a/qishlow-ovozi-central-asian-summit-astana/29099148.html>

³ See more: Benjamin Pohl et al., *Rethinking Water in Central Asia: The Costs of Inaction and Benefits of Water Cooperation* (Berlin: adelphi and CAREC, 2017); <https://www.adelphi.de/en/publication/rethinking-water-central-asia>

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The OSCE Academy's Policy Briefs became possible with financial support from the Norwegian Ministry of Foreign Affairs via the Academy's Cooperation with the Norwegian Institute of International Affairs.

Introduction

Central Asia has been considered one of the world's most conflict-prone regions in terms of water relations for more than two decades. Over recent years, however, the countries of the region have collectively moved away from the hostile rhetoric and escalating tensions. This significant turn can mostly be attributed to the efforts of Uzbekistan's president, Shavkat Mirziyoyev, who assumed office in 2016. As Uzbekistan holds a specific position in the middle of the Aral Sea basin, has uniquely strong water interdependencies with the upstream countries, and as its hostile attitude in water relations had long been an obstacle towards regional bi- and multilateral water cooperation, the political turn of Mirziyoyev has the potential to develop into a true game-changer in regional water relations.

Mirziyoyev's reforms can foster regional water cooperation in Central Asia in two main aspects: 1) creating a beneficial regional atmosphere through enhancing diplomatic dialogue and general intraregional cooperation; 2) setting an example for other Central Asian countries with domestic water reforms and infrastructure development. The emerging water-related initiatives are promising, and the past few years have brought several landmark events in the regional history of water relations. At the same time, a comprehensive Uzbek economic reform is on its way, which is supposed to bring a significant impact on the efficiency of domestic water and energy infrastructures. However welcome these developments though, the real key for the long-term economic and social stability of the region is the swift and thoughtful practical implementation of the proposed initiatives.

Background

Central Asia is one of the most water-scarce regions of the world, but this scarcity is not measured in absolute terms. Theoretically, the region has abundant water resources, and currently only Uzbekistan has to face

water stress per se.⁴ The climate of Central Asia is generally arid, and the natural water resources of the region are extremely unequally distributed between upstream countries located in high mountains (Kyrgyzstan, Tajikistan) and downstream countries mostly extending to steppe regions and semi-deserts (Kazakhstan, Uzbekistan, Turkmenistan), but the main source of water stress is human economic activity and problems of allocation.

While downstream countries use water resources for the purposes of agriculture, most importantly, for irrigation, upstream countries are interested in generating hydropower to satisfy their energy needs and to expand electricity exports. The agricultural use of water is centered around the vegetation period, when water stored in reservoirs is released in a great amount to serve irrigation purposes. Energy use is typically high in the colder months, which also necessitates an increased release of water from reservoirs. Thus, these two purposes contradict each other in terms of the patterns of water use.⁵ Energy is a crucial element of Central Asian water relations, as upstream countries have no significant energy sources other than hydropower, and their economic development and internal stability largely depends on the provision of sufficient and stable energy supplies. Downstream countries, on the other hand, have abundant reserves of fossil fuels,⁶ which used to serve

⁴ According to the Falkenmark indicator or the 'water stress index', a country experiences water stress if the amount of renewable water accessible in its area falls below 1,700 m³ per person per year. In the case of Uzbekistan, this was 1,531 m³/inhab/year in 2017, although before 2012, Uzbekistan was above the 1,700 m³/inhab/year threshold. (AQUASTAT; Karen Frenken, *Irrigation in Central Asia in Figures*, FAO Water Reports 39. (Rome: Food and Agriculture Organization of the United Nations, 2013); <http://www.fao.org/family-farming/detail/en/c/345588/>)

⁵ International Crisis Group, "Water Pressures in Central Asia," Europe and Central Asia Report N°233 (2014); <https://www.crisisgroup.org/europe-central-asia/central-asia/233-water-pressures-central-asia>, 3.

⁶ Central Intelligence Agency, *The World Factbook: Country Comparisons, Crude Oil – Proved Reserves* (2018); <https://www.cia.gov/the-world-factbook/field/crude-oil-proved-reserves/country-comparison> Central Intelligence Agency, *The World Factbook: Country Comparisons, Natural Gas – Proved Reserves* (2018); <https://www.cia.gov/the-world-factbook/field/natural-gas-proved-reserves/country-comparison>

as a firm basis for water-energy barter during Soviet times.⁷

After the collapse of the Soviet Union, the newly independent countries established an advanced regime for the joint management of their transboundary water resources, based on the Almaty Agreement of 1992 and the Nukus Declaration of 1995, and institutionalized in the forms of the Interstate Commission for Water Coordination (ICWC), the Interstate Council for the Aral Sea Basin Crisis (ICAS), and the International Fund for Saving the Aral Sea (IFAS). (The latter two merged under the name of IFAS in 1999.) However, by the end of the 1990s, this regime lost both its practical and symbolic relevance and its credibility. The last multilateral agreements on water and energy use in the region were approved around the year 2000, but with the decreasing political commitment of the parties, they mostly turned into hollow and rather inefficient frameworks.⁸

Following the cooperative atmosphere of the 1990s, after 2000, water became the subject of clashing state interests in a rivalry to exploit water resources. Formerly set allocation quotas and barter agreements faded, and generally evolving regional tensions stemming from state and nation-building processes and economic competition began to dominate in water relations as well. As downstream countries withdrew from supplying relatively cheap energy sources for upstream countries, the latter, as a response, began to utilize their hydropower capacities in a unilateral way, which changed the patterns of water use, influencing the amount of water reaching downstream countries.⁹ Upstream countries also embarked on the construction of large dam systems, which was perceived as a significant threat for downstream countries fearing increasing seasonal scarcity, floods, and strategic vulnerability, also related to their economic needs and development prospects.

⁷ Philip Micklin, *The Water Management Crisis in Soviet Central Asia* (Kalamazoo: Western Michigan University, 1989).

⁸ Julia Wunderer, "The Central Asian Water Regime as an Instrument for Crisis Prevention," in *Facing Global Environmental Change: Environmental, Human, Energy, Food, Health and Water Security Concepts*, ed. Hans Günter Brauch, et al. (Berlin: Springer-Verlag, 2009).

⁹ International Crisis Group, "Water Pressures," 3.

Regional impacts of Uzbekistan's cooperative foreign policy turn

The coldest moment of Central Asian water relations happened in 2012, when then incumbent Uzbek president Islam Karimov declared that "all of this could deteriorate to the point where not just serious confrontation, but even wars could be the result"¹⁰. Karimov, as the leader of a downstream country leaning on irrigated agriculture to a great extent, was the fiercest opponent of upstream hydropower development plans, continuously raising objections against them, and trying to use all accessible means, from hostile rhetoric to railway blockades, to prevent their continuation.¹¹ Uzbekistan's standpoint became the most significant obstacle of the regional dialogue on water management issues. The following lack of communication and coordination, combined with other sources of tensions, culminated in an atmosphere of mistrust and hostility – not only in the water sector but also in general diplomatic relations.

In 2016, however, Shavkat Mirziyoyev became President of Uzbekistan, and the change he brought in the foreign policy of the country led to unexpected developments in water relations. In the first years of his presidency, Mirziyoyev initiated numerous high-level meetings with his counterparts in the region, signed several joint statements and agreements on both bilateral and multilateral levels, and proposed various joint development initiatives. As the relations between Uzbekistan and its neighbors were rather cold under Karimov's presidency, Mirziyoyev's visits to Dushanbe, Bishkek and Asgabat, and the following restoration of diplomatic dialogue, have a great symbolic value. The number of statements, agreements, and proposed joint initiatives indicate the commitment of Mirziyoyev to create a

¹⁰ Raushan Nurshayeva, "Uzbek Leader Sounds Warning Over Central Asia Water Disputes," *Reuters* (2012); <https://www.reuters.com/article/centralasia-water-idUSL6E8K793I20120907>

¹¹ Yusuf Makhmedov, Mamurjon Madmusoev, Suhkrob Tavarov, *Water and Energy Disputes between Tajikistan and Uzbekistan and Their Negative Influence on Regional Co-operation*, NUPI – RUSHD NGO, Tajikistan (2012); <https://nupi.brage.unit.no/nupi-xmlui/bitstream/handle/11250/2663666/Makhmedov%20FINAL%20cover.pdf>

beneficial atmosphere for the development of intraregional cooperation and economic connectivity, based on trust, communication, and jointly coordinated projects. His concentrated diplomatic efforts included significant steps regarding water issues, thoroughly changing the hostile tone of water relations in Central Asia.¹²

Mirziyoyev used his speech at the United Nations General Assembly in 2017 to make his standpoint on water issues clear, stating that “We fully share the position of the UN Secretary-General that ‘the problems of water, peace and security are inextricably linked’ (...) there is no alternative to addressing the water problem other than equally taking into account the interests of the countries and nations of the region.”¹³ He followed this approach in tackling the most sensitive water-related issues in Central Asia, namely, the continuation of two long-condemned upstream hydropower plant projects, the Roghun (Tajikistan) and Kambar-ata I. (Kyrgyzstan) dam systems. In 2017, Uzbekistan unexpectedly expressed its support for these projects, maintaining the condition that the relevant UN Conventions and Uzbekistan’s interests are taken into consideration. This step was received with great surprise in the region, especially when Mirziyoyev declared that Uzbekistan is willing to become involved in the construction works of both projects.¹⁴ The diplomatic thaw seems to have its tangible outcomes beyond the case of the landmark projects of Roghun and Kambar-ata as well. For example, in January 2020, Uzbekistan and Tajikistan began negotiations

on the joint construction of two hydropower plants in Tajikistan.¹⁵

In March 2018, a landmark summit took place in Astana with the participation of the presidents of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, and a delegation from Turkmenistan led by the chair of the parliament. This was the first truly regional presidential meeting since 2009, and the sixth since the collapse of the Soviet Union. In August, Central Asian leaders had another summit in the framework of the International Fund for Saving the Aral Sea (IFAS), where the President of Turkmenistan was also present. After almost a decade, the chief decision-makers of the region had the opportunity to discuss their vision about regional water management in person, committing themselves to peaceful and cooperative solutions in public. Considering the level of previous tensions, and the rapidity of the turn in the tone of water diplomacy, these high-level meetings confer a specific and significant meaning: they indicate and emphasize the political will of Central Asian states to re-engage in political dialogue on water cooperation, which is the inevitable precondition for any practical developments.

There is no common solution for transboundary water issues without tackling energy issues in a joint manner, and Mirziyoyev’s foreign policy opening also serves this aim well. After the normalization of regional relations, plans to rethink the once unified Central Asian Power Grid were also discussed, mostly in bilateral meetings.¹⁶ Mirziyoyev’s commitment to water issues is also reflected in his systematic and structural domestic reform initiatives. His agricultural reforms are not only aimed at diversifying the Uzbek dependency on water-intensive cotton production, but also include steps to eliminate binding societal dependencies related to the ‘white gold’, which also contribute to the inefficiency of

¹² Catherine Putz, “Uzbekistan’s Changing Rogun Tone,” *The Diplomat* (2017); <https://thediplomat.com/2017/07/uzbekistans-changing-rogun-tone/>

¹³ Address by H.E. Mr. Shavkat Mirziyoyev, the President of the Republic of Uzbekistan at the UNGA-72. 19 September 2017, https://www.un.int/uzbekistan/statements_speeches/address-he-mr-shavkat-mirziyoyev-president-republic-uzbekistan-unga-72

¹⁴ Reuters, “Uzbekistan Drops Objections to Giant Tajik Hydro Project,” Reuters (2018); <https://www.reuters.com/article/tajikistan-uzbekistan-hydro-idUSL5N1QR4CD>; Umida Hashimova, “Uzbekistan and Kyrgyzstan Undertake Resolving Their Water Disputes,” *Eurasia Daily Monitor* 14, no. 131 (2017); <https://jamestown.org/program/uzbekistan-kyrgyzstan-undertake-resolving-water-disputes>

¹⁵ Gazeta.uz, “Uzbekistan and Tajikistan discuss construction of two hydropower plants for \$552 million” [Узбекистан и Таджикистан обсуждают строительство двух ГЭС за \$552 млн], *Gazeta.uz* (2020); <https://www.gazeta.uz/ru/2020/01/28/>.

¹⁶ Bruce Pannier, “Is This the Start of Regional Cooperation in Central Asia?” *RFE/RL* (2017); <https://www.rferl.org/a/qishloq-ovozi-uzbekistan-mirziyayev-neighbors-cooperation/28506666.html>

agricultural practices and have often been condemned by advocacies of human rights. There are attempts to increase water efficiency in irrigation, and a state program for the development of the Aral Sea region is also being compiled.¹⁷

Challenges to recent accomplishments of cooperation

Although the recent cooperative turn in Central Asian water relations seems to advance at a convincing pace, the changing conditions of water scarcity may alter this tendency. Considering that water scarcity is mostly man-made in the region, demographic trends predict an increasing strain on water resources. Central Asia is experiencing a very rapid population growth. In 2000, the number of the region's inhabitants amounted to 56 million, while only eighteen years later it reached 72 million. According to the estimates of IIASA, by 2100, the number of Central Asians may increase to 95 million.¹⁸ This not only means a significant increase in water consumption but a rise in agricultural and industrial production as well. As a consequence, the already complex challenges of regional water allocation and energy use are expected to become even more arduous.

Meanwhile, the accelerating pace of climate change in Central Asia is also expected to increase water scarcity already in the short run. According to World Bank predictions, average temperatures may rise by up to 6°C in the coming decades. This worsens the situation of glaciers feeding the region's rivers, and projections estimate that one-third of them could melt before 2050.¹⁹ Climate change

also alters the timing of the peak flow of key rivers, which is expected to shift towards spring, while in the summer growing season the same rivers would carry 25% less water.²⁰ Increasing temperature, in the meantime, would grow demand for irrigation by 30% while reducing yields at a similarly extreme pace.²¹ As a consequence, the situation of agriculture is expected to deteriorate quickly. Considering that 30% of the Central Asian workforce is active in this sector, this may have devastating effects.²² Moreover, extreme weather conditions, which may cause natural catastrophes such as drought, floods, or avalanches, already happen more frequently than before, putting additional burdens on the already strained economies of the region.²³ Under these deteriorating circumstances, "business-as-usual" approaches are not sustainable, and the present achievements of Mirziyoyev's diplomatic initiatives may soon be dwarfed beside the negative impacts of demographic tendencies and climate change on water scarcity. On the other hand, the fact that intraregional relations in Central Asia are currently in a developing phase does not mean that sources of tension are eliminated completely. Under the above-described conditions of increasing water scarcity, former tensions may escalate again, jeopardizing the recent achievements of diplomacy.

Conclusion

To realize the potential of the impact of Uzbekistan's cooperative foreign policy turn on resetting regional water relations, Central Asian countries need to reach beyond the promising but rather general joint forums and

¹⁷ Bakhtiyor Alimdjano, "Uzbekistan's Water Sector: Environmental and Managerial Issues," *Central Asian Bureau for Analytical Reporting* (2020); <https://cabar.asia/en/uzbekistan-s-water-sector-environmental-and-managerial-issues>

¹⁸ Paul Stronski and Russell Zanca, "Societal Change Afoot in Central Asia," *Carnegie* (2019); <https://carnegieendowment.org/2019/10/18/societal-change-afoot-in-central-asia-pub-80086>

¹⁹ The World Bank, "Forecasting for Resilience: Central Asia Strengthens Climate and Weather Services," (2018); <https://www.worldbank.org/en/news/feature/2018/03/23/forecasting-for-resilience-central-asia-strengthens-climate-and-weather-services>

²⁰ World Bank Group, *Turn Down the Heat: Confronting The New Climate Normal: The Climate Challenge for Central Asia* (Washington, D.C.: World Bank Group, 2015). <http://documents.worldbank.org/curated/en/294131467991967756/The-climate-challenge-for-Central-Asia>

²¹ World Bank Group, *Turn Down the Heat...*; The World Bank, "Forecasting..."

²² The World Bank, "Forecasting..."

²³ Jakob Granit et al., *Regional Water Intelligence Report Central Asia: Baseline Report*, Report commissioned by UNDP-SIWI Water Governance Facility (Stockholm: SIWI, 2010); <https://www.watgovernance.org/resources/regional-water-intelligence-report-central-asia/>, 26-27.

water-related statements of their leaders. The governments of the region jointly need to commit to addressing the economic impacts of demographic challenge and climate change, using extended regional cooperation to prevent the escalation of long-term economic and social destabilizing processes related to water resources. The real keys to the long-term stability of the region are 1) the swift and thoughtful implementation of the recently proposed initiatives in the form of binding commitments at the technical level, and 2) the continuation of diplomatic dialogue on the highest political levels; involving a wide range of stakeholders in order to find the most efficient solutions on both levels, and bearing in mind the possibility of a thorough structural change of regional water relations with negotiations about refilling the empty institutional frames of the Central Asian water regime.

Recommendations for the governments of the region

1. Continuing diplomatic efforts and taking binding commitments

High-level diplomatic meetings offer a symbolic assurance for cooperation, demonstrating the political will to deal with water issues at a regional level. The dialogue among state leaders opens up space for articulating interests, negotiating existing difficulties in regional relations, discussing risks, capabilities and opportunities, and discussing prospects of cooperation both on inter-state and regional levels. However, Central Asian governments also need to take binding commitments to the practical implementation of their proposed joint initiatives.

2. Managing increasing water scarcity, preventing reescalation

Under the deteriorating conditions of climate change, tensions are more likely to resurface again. It is of high importance to closely monitor the tendencies which indicate such prospects and react to them promptly, preferably in joint efforts, to increase the efficiency of

water management and energy systems, and to mitigate the impact of climate change with sustainable and economically profitable solutions.

3. Leaning on technical expertise, sharing information, building trust

In the process of implementing the proposed initiatives, establishing or extending joint information sharing, monitoring, and early-warning systems is of crucial importance. Increasing transparency also contributes to building confidence and trust. Under the umbrella of technical cooperation, regulations on water allocations, and joint infrastructure projects adapted to current needs may also be discussed.

4. Domestic water-related reforms and infrastructure development

In order to turn the outcomes of the related reforms in Uzbekistan to 'best practices' for the region, it is necessary to monitor and document the implementation of these reforms in a transparent way, and disseminate the outcomes and the conclusions of the processes among the related scientific institutions, academic communities, and policy-making forums in the region. Beside sharing best practices, closer cooperation, even in the form of multilateral regional developmental plans and related joint implementation initiatives, is advisable.

5. Rethinking the regional water regime

The cornerstone for the integrated management of the region's waters is a joint regime based on functioning and credible regional agreements and institutions. Starting out from the recent cooperative turn in state relations, the possibilities of reactivating the existing, but barely functional agreements and institutions in their renegotiated forms, adapted to the current needs and interests of the member states, should be studied and discussed thoroughly, integrating the standpoints of a wide range of relevant stakeholders.

Reference List

- Address by H.E. Mr. Shavkat Mirziyoyev, the President of the Republic of Uzbekistan at the UNGA-72. 19. September 2017. https://www.un.int/uzbekistan/statements_speeches/address-he-mr-shavkat-mirziyoyev-president-republic-uzbekistan-unga-72.
- Alimdjanov, Bakhtiyor. “Uzbekistan’s Water Sector: Environmental and Managerial Issues.” *Central Asian Bureau for Analytical Reporting* (2020). <https://cabar.asia/en/uzbekistan-s-water-sector-environmental-and-managerial-issues>.
- Central Intelligence Agency. The World Factbook: Country Comparisons. Crude Oil – Proved Reserves. (2018). <https://www.cia.gov/the-world-factbook/field/crude-oil-proved-reserves/country-comparison>.
- Central Intelligence Agency. The World Factbook: Country Comparisons. Natural Gas – Proved Reserves. (2018). <https://www.cia.gov/the-world-factbook/field/natural-gas-proved-reserves/country-comparison>.
- Frenken, Karen. *Irrigation in Central Asia in Figures*. FAO Water Reports 39. Rome: Food and Agriculture Organization of the United Nations, 2013. <http://www.fao.org/family-farming/detail/en/c/345588/>.
- Gazeta.uz. “Ўзбекистан и Таджикистан обсуждают строительство двух ГЭС за \$552 млн.” *Gazeta.uz* (2020). <https://www.gazeta.uz/ru/2020/01/28/energy/>.
- Granit, Jakob, Anders Jägerskog, Rebecca Löfgren, Andy Bullock, George de Gooijer, Stuart Pettigrew, and Andreas Lindström. *Regional Water Intelligence Report Central Asia: Baseline Report*. Regional Water Intelligence Report No. 15. Report commissioned by UNDP-SIWI Water Governance Facility. Stockholm: SIWI, 2010. <https://www.watergovernance.org/resources/regional-water-intelligence-report-central-asia/>.
- Hashimova, Umida. “Uzbekistan and Kyrgyzstan Undertake Resolving Their Water Disputes.” *Eurasia Daily Monitor* 14, no. 131 (2017). <https://jamestown.org/program/uzbekistan-kyrgyzstan-undertake-resolving-water-disputes>.
- International Crisis Group. “Water Pressures in Central Asia.” *Europe and Central Asia Report N°233* (2014). <https://www.crisisgroup.org/europe-central-asia/central-asia/233-water-pressure-central-asia>.
- Makhmedov, Yusuf, Mamurjon Madmusoev, Suhkrob Tavarov. *Water and Energy Disputes between Tajikistan and Uzbekistan and Their Negative Influence on Regional Co-operation*. NUPI – RUSHD NGO, Tajikistan (2012). <https://nupi.brage.unit.no/nupi-xmlui/bitstream/handle/11250/2663666/Makhmedov%20FINAL%20cover.pdf>.
- Micklin, Philip. *The Water Management Crisis in Soviet Central Asia*. Kalamazoo: Western Michigan University, 1989.
- Nurshayeva, Raushan. “Uzbek Leader Sounds Warning Over Central Asia Water Disputes.” *Reuters* (2012). <https://www.reuters.com/article/centralasia-water-idUSL6E8K793I20120907>.
- Pannier, Bruce. “Is This the Start of Regional Cooperation in Central Asia?” *RFE/RL* (2017). <https://www.rferl.org/a/qishloq-ovozi-uzbekistan-mirziyaev-neighbors-cooperation/28506666.html>.
- Pannier, Bruce. “Why This Central Asian Summit Could Be Different.” *RFE/RL* (2014). <https://www.rferl.org/a/qishlow-ovozi-central-asian-summit-astana/29099148.html>.
- Pohl, Benjamin, Annika Kramer, William Hull, Sabine Blumstein, Iskandar Abdullaev, Jusipbek Kazbekov, Tais Reznikova, Ekaterina Strikeleva, Eduard Interwies, and Stefan Görlitz. *Rethinking Water in Central Asia: The Costs of Inaction and Benefits*

of Water Cooperation. Berlin: adelphi and CAREC, 2017.

<https://www.adelphi.de/en/publication/rethinking-water-central-asia>.

Putz, Catherine. "Uzbekistan's Changing Rogun Tone." *The Diplomat* (2017). <https://thediplomat.com/2017/07/uzbekistans-changing-rogun-tone/>.

Reuters. "Uzbekistan Drops Objections to Giant Tajik Hydro Project." *Reuters* (2018). <https://www.reuters.com/article/tajikistan-uzbekistan-hydro-idUSL5N1QR4CD>

Stronski, Paul and Russell Zanca. "Societal Change Afoot in Central Asia." *Carnegie* (2019). <https://carnegieendowment.org/2019/10/18/societal-change-afoot-in-central-asia-pub-80086>.

The World Bank. "Forecasting for Resilience: Central Asia Strengthens Climate and Weather Services." (2018).

<https://www.worldbank.org/en/news/feature/2018/03/23/forecasting-for-resilience-central-asia-strengthens-climate-and-weather-services>.

World Bank Group. *Turn Down the Heat: Confronting The New Climate Normal: The Climate Challenge for Central Asia*. Washington, D.C.: World Bank Group, 2015. <http://documents.worldbank.org/curated/en/294131467991967756/The-climate-challenge-for-Central-Asia>.

Wunderer, Julia. "The Central Asian Water Regime as an Instrument for Crisis Prevention." In *Facing Global Environmental Change: Environmental, Human, Energy, Food, Health and Water Security Concepts*, edited by Hans Günter Brauch, et al. Berlin: Springer-Verlag, 2009.