

WATER DIPLOMACY ANALYSIS FOR CENTRAL ASIA

DYNAMICS OF INSECURITY
AND SOURCES OF RESILIENCE

Emma Hakala, Katariina Mustasilta & Mohammed Hadi

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/ 73

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CONTENTS

List of abbreviations 7

Foreword 9

Introduction 11

1. Central Asia as a region 17

2. Conflict analysis tool for water diplomacy 23

3. Central Asia Water diplomacy conflict analysis 31

3.1. Profile 31

3.2. Actors 52

3.3. Conflict factors 65

3.4. Dynamics 78

4. Outcomes of the analysis 95

4.1. Conflict potential 95

4.2. Resilience sources 98

4.3. Vulnerabilities 99

4.4. Recommendations: Opportunities
and potential steps forward 100

Conclusions 109

Bibliography 111

Contributors 119

Previously published in the series 121

LIST OF ABBREVIATIONS

BRI	Belt and Road Initiative
BWO	Basin Water Organisation
CAREC	Regional Environmental Centre for Central Asia
CAWEP	Central Asia Water and Energy Programme
CSTO	Collective Security Treaty Organization
DAC	Development Assistance Committee
EAEU	Eurasian Economic Union
EBRD	European Bank for Reconstruction and Development
EU	European Union
EUSR	European Union Special Representative
FIIA	Finnish Institute of International Affairs
GIZ	German International Cooperation
GONGO	Government-organized Non-governmental Organization
ICSD	Interstate Commission on Sustainable Development
ICWC	Interstate Commission for Water Coordination
IFAS	International Fund for Saving the Aral Sea
IFI	International Financing Institution
IWRM	Integrated Water Resources Management
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
OSCE	Organization for Security and Co-operation in Europe
SCO	Shanghai Cooperation Organization
SDC	Swiss Development Cooperation agency
SIWI	Stockholm International Water Institute
SYKE	Finnish Environment Institute
UN	United Nations
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNRCCA	United Nations Regional Centre for Preventive Diplomacy for Central Asia
USAID	United States Agency for International Development
WB	World Bank

FOREWORD

Recent geopolitical shifts, economic crisis, accelerating energy transition and various other global developments have implications for the stability and security of the Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. These changes and challenges also emphasize the importance of water in the region, whether concerning energy production, agriculture and food security, economic and social development, as well as regional relations. In order to better understand the dynamics between regional stability and water in Central Asia, it is necessary to recognize the comprehensive, cross-sectoral impacts of water use. In a region where many of the key water resources are transboundary, decisions about water use can have significant implications across borders and therefore also on the relations between the countries.

This report is the result of an analysis carried out as part of the project “Water Cooperation and Peace – Finnish Water Way”, funded by the Finnish Ministry for Foreign Affairs, Ministry of the Environment and Ministry of Agriculture and Forestry. The project is implemented by the Finnish Environment Institute (SYKE) in partnership with the Finnish Institute of International Affairs (FIIA). The aim of the project is to support the implementation of Finland’s goal of sustaining peace and ensuring security by making water visible in its peace initiatives as well as its foreign and security policy. To achieve this, the project seeks to strengthen Finland’s international water diplomacy collaboration and the implementation of international transboundary agreements, identify and respond to Finnish and international water diplomacy competence-building needs, and deepen cooperation between experts in foreign and security policy, peace mediation and the water sector. The project also coordinates the Finnish Water Diplomacy Network, which engages practitioners and researchers working on water issues in Finland and abroad.

While water diplomacy needs to take place through action, informed policy making to promote it requires knowledge and understanding. In particular, the links between water and environment on one hand and security, peace and conflict on the other are often complex, so research and analysis are necessary to better discern the challenges and opportunities associated with them. Within the scope of the “Water Cooperation and Peace” project, FIIA has been tasked with supporting the production

of water diplomacy analyses in different regions where the dynamics between water use, insecurity and stability are crucial. To this end, FIIA has developed a conflict analysis tool for water diplomacy. Analysis of Central Asia has served as an important step in the development of the tool as it was the first time being tested and implemented in its full scope.

The authors of the report are grateful for the support of the entire “Water Cooperation and Peace” project team, as well as expert advice and commentary from the project steering group. The authors would also like to thank the members of the Finnish Water Diplomacy Network as well as other colleagues from the Ministry for Foreign Affairs, Ministry of the Environment and Ministry of Agriculture and Forestry who have read and provided comments on the report. In addition, the report has benefited from numerous background interviews with both Finnish and international experts on Central Asia and water cooperation, whose perspectives have been invaluable for the completion of the analysis.

Helsinki, 10 February 2023

INTRODUCTION

This analysis outlines the potential for water diplomacy in Central Asia. It identifies major conflict factors, peace enablers and regional dynamics, linking these to interests regarding water use. The analysis takes an anticipatory, forward-looking approach and particularly focuses on sources of resilience and potential points of cooperation. Building on vast literature on water governance, cooperation and conflict, this work serves as a preliminary regional study especially intended for the use of the Finnish Water Diplomacy approach. In addition, it provides recommendations for further steps to promote Finnish water diplomacy in Central Asia.

Water diplomacy refers to the prevention and resolution of political tensions over water and its use with the help of water expertise and diplomatic tools. Fair and well-governed management of water resources also serves as a platform for cooperation and peacebuilding. The Finnish approach to water diplomacy combines two of Finland's strengths, transboundary water cooperation and peace mediation, and builds on national and international networks and partnerships. Through these efforts, Finland can promote its broad foreign and security goals and scale up its role in international affairs.

Water has a crucial role in Central Asia as a precondition for economic and social development, but also for relations between the countries in the region due to the largely transboundary and shared character of resources. Unresolved issues, for example about borders, continue to cause tensions between the countries and questions about water use have been intertwined in disputes and clashes in the past. As the impacts of climate change become increasingly visible and are likely to further reduce water

access, it is important to better understand the water conflict and resilience dynamics in Central Asia. Finland has an interest in supporting sustainable water use and stability in the region due to its long-term involvement in water cooperation projects in the Central Asian countries.

The work for this report has utilized and contributed to the development of a conflict analysis tool for water diplomacy. The aim of this analysis is not to attempt a full regional assessment or overview of water cooperation in Central Asia or its transboundary water resources, as highly relevant reports have already been produced by several organisations.¹ Instead, the aim of this study has been to collate existing knowledge and previous assessments and use them as a basis for a conflict analysis to specifically outline opportunities and perspectives for Finnish water diplomacy actions in the region.

This report builds on previous Finnish experience on water cooperation in various international contexts, such as United Nations Economic Commission for Europe as well as The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention). It also continues and further contributes to work done within the Finnish Water Diplomacy Network, in particular a previous study on water diplomacy and conflict resolution which included a case study on Central Asia.²

1 UNECE 2017; Salminen et al. 2019; Pohl et al. 2017; Rheinbay et al. 2018.

2 Salminen et al. 2019.

/ 1

1. CENTRAL ASIA AS A REGION

Central Asia is a term commonly used to refer to the region covering the former Soviet republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. From the north, the region borders Russia, while from the east and south, it is bordered by China, Iran, and Afghanistan. Central Asia is marked by varied geography, ranging from mountains and glaciers to fertile valleys.³ The region has vast natural resources, some of which are also crucial for the functioning of the countries' economies, such as water and coal.⁴ Water has been seen as a cause of stark competition, if not tension, in Central Asia. Although the region has abundant water resources, they are relatively unequally distributed between the countries and water use has been intense.⁵

In terms of regional commonalities, the Central Asian republics share various cultural and religious characteristics but also broader history, including the evolution of their post-Soviet regimes and governmental practices.⁶ Some of the shared legacies reflect positively in their societies today, such as the fact that the countries generally emerged from the Soviet era as educated and literate. Some, however, have been hindering societal, political and economic development. The Central Asian republics are considered among the most corrupt nations in the world and the ruling elites of Central Asian states have developed a unique pattern of

3 Expert Working Group on Climate-related Security Risks 2018.

4 Pohl et al. 2017.

5 Rheinbay et al. 2021.

6 Cummings 2013.

authoritarian state-centric solidarity among them.⁷ From an economic perspective, these states have inherited Soviet era structures, which has kept their economies based on raw material production.⁸



Image 1. Map of Central Asia

7 Buranelli 2020.

8 *ibid.*

Official name:	Republic of Kazakhstan
Capital:	Astana
Area:	2,724,900 km ²
Water area:	25,200 km ²
Population:	19,261,000
GDP per capita:	9,122\$
Government type:	Presidential republic, authoritarian

Table 1. Basic information on Kazakhstan
Source: The World Bank Data 2022a; Britannica, T. Editors of Encyclopaedia 2020a; Central Intelligence Agency 2022a.

Official name:	The Kyrgyz Republic
Capital:	Bishkek
Area:	199,951 km ²
Water area:	8,150 km ²
Population:	6,769,000
GDP per capita:	1,175\$
Government type:	Electoral authoritarian/hybrid regime

Table 2. Basic information on Kyrgyzstan
Source: Cummings 2013; Britannica, T. Information Architects of Encyclopaedia 2022b; Central Intelligence Agency 2022b; Open Democracy 2022.

Official name:	Republic of Tajikistan
Capital:	Dushanbe
Area:	144,100 km ²
Water area:	2,590 km ²
Population:	9,602,000
GDP per capita:	859,1\$
Government type:	Presidential republic, authoritarian

Table 3. Basic information on Tajikistan
Source: Britannica, T. Information Architects of Encyclopaedia 2022c; The World Bank Data 2022b; Central Intelligence Agency 2022c.

Official name:	Türkmenistan
Capital:	Ashgabat
Area:	488,100 km ²
Water area:	18,170 km ²
Population:	6,118,000
GDP per capita:	7,612\$
Government type:	Presidential republic, authoritarian

Table 4. Basic facts on Turkmenistan
Source: The World Bank Data 2022c; Sinor et al. 2022; Central Intelligence Agency 2022d.

Official name:	Republic of Uzbekistan
Capital:	Tashkent
Area:	447,400 km ²
Water area:	22,000 km ²
Population:	34,860,000
GDP per capita:	1,750\$
Government type:	Presidential republic, authoritarian

Table 5. Basic information on Uzbekistan
Source: The World Bank Data 2022d; Allworth et al 2022; Central Intelligence Agency 2022e.

1/2

2. CONFLICT ANALYSIS TOOL FOR WATER DIPLOMACY

Conflict analysis is usually used when planning and programming actions in a conflict-prone environment. It aims to identify potential conflict factors and dynamics that might affect the actions taken or their outcomes. The idea is to enable conflict-sensitive practices and better understand the operating environment overall to ensure that the do-no-harm principle can and will be followed.⁹ Conflict analysis stems from the study of conflict resolution, which is reflected in some of its differences in comparison to conflict assessment models developed by humanitarian aid and development practitioners. Conflict assessment tends to aim for conflict sensitivity through an understanding of the context, whereas conflict analysis retains the dynamics of conflict and potential ways to respond to them at its core.¹⁰

The dynamics of conflict extend beyond the outbreak of direct violence and can be seen as a spectrum also known as the conflict cycle. It is usually conceptualized as proceeding from tensions to escalation to (violent) crisis, followed by de-escalation, leading to either a resolution, reconstruction and reconciliation or an unstable peace.¹¹ The cycle is not an inexorable process where one phase inevitably follows another, but different measures, from prevention to peacekeeping and resolution to peacebuilding, are needed at each phase of the process. This also means that local clashes or latent tension over the use of water resources, for instance, are not equated with direct armed violence between two states

9 International Alert 2004.

10 Freeman and Fisher 2012.

11 International Alert 2004; see also Lund 2004.

but are recognized as potential steps on the conflict cycle that may call for preventative measures.

There are various conflict analysis models, many of which allow for the incorporation of natural resource- and water-related aspects. However, for water diplomacy efforts in particular, a specific model emphasizing the interlinks of water, peace and conflict provides added value. An integrated approach for conflict analysis and water diplomacy helps to identify factors related to water and to include them in the overall assessment of a conflict situation. While the model needs to be applied in different ways in contexts that may vary, especially in terms of the urgency of action, phase of the conflict cycle and objectives of the analysis, it provides a shared frame of reference. It therefore also promotes the mainstreaming of water and natural resource aspects in broader foreign and security policy.

The basis for the conflict analysis tool for water diplomacy is the so-called PACD-model. The original model has aimed to identify the Profile, Actors, Causes and Dynamics of a conflict and, based on these elements, provide a systematic understanding of a specific conflict situation.¹² Among the various existing conflict analysis models, PACD is particularly useful in the context of water diplomacy for several reasons. It is used by several international organisations in the fields of development and security policy, suggesting it is widely recognized as worthwhile. It also provides a straightforward approach that is relatively easy to adopt and apply. However, it also makes it possible to incorporate or emphasize aspects such as water. In addition, PACD is a conflict analysis, rather than conflict assessment, model, therefore tying it to conflict resolution while also enabling the integration of anticipatory and foresight elements. As such, it is well suited to the purposes of water diplomacy which operates at all phases of the conflict cycle.

To develop a tool for conflict analysis specifically for water diplomacy, the PACD model has been complemented with a focus on water resources, their governance and water-related dynamics as well as a cross-sectoral nexus approach. In addition, to enable a forward-looking approach, the conflict analysis tool for water diplomacy also aims to identify peace enablers and sources of resilience. The basic framework for the model is presented in Image 2 below.

12 International Alert 2004.

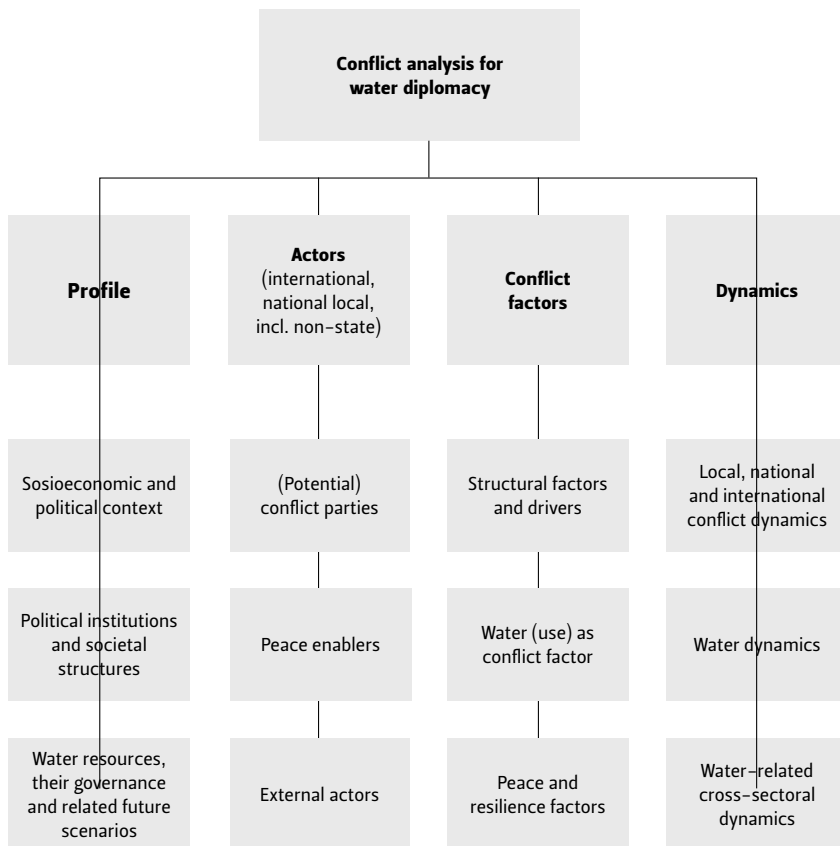


Image 2. Conflict analysis tool for water diplomacy
Source: Authors' analysis

The model has four main dimensions: Profile, Actors, Conflict factors and Dynamics. Under Profile, it outlines the general socio-economic and political context, providing an overview of the operating environment. Political institutions and societal structures provide the ‘rules of the game,’ detailing the institutional background for the target region. They can also be thought of as forming the playing field that enables and constrains the emergence of underlying, context-specific conflict factors and drivers. Finally, the water aspect is brought in through the water resources, their governance and related future scenarios.

Actors include conflict parties, which can also be potential if a conflict is not ongoing, as well as peace enablers or actors who work to promote dialogue and alleviate tensions. Actors may include both state- and non-state actors and may be national or subnational in their scope and aims. In most cases, in addition to the primary parties to a (potential) conflict and conflict resolution processes, external actors influence the conflict

cycle, for example by supporting one of the conflict parties, and must be included in the conflict analysis. External actors may have both conflict-inducing influence and peace-enabling influence. Moreover, in general, different actors can have different roles at different stages of the conflict cycle, or even simultaneously, when considered from different points of view.

Under Conflict factors, the model lists structural factors and drivers that have a key role in the operating environment from the perspective of conflict potential and dynamics. Structural factors refer to aspects that may be considered exogenous (e.g., terrain, water resources) or relatively stable socio-economic and socio-political realities, whilst drivers refer to more dynamic and proximate factors that generate conflict potential (political instability, emergence of non-state armed groups, sudden influx of arms/people). The tool specifically recognizes water use as conflict factor, showing the ways in which questions of water are entangled in conflicts. Peace and resilience resources point out factors that have the potential to bring peace or maintain stability as opposed to aggravating conflict.

Dynamics focuses on change in the operating environment. It looks at the general local, national, and international conflict dynamics that may have a role in shifting conflict or conflict potential. It also explores water dynamics or the water-related developments that may significantly impact the context. Finally, the analysis includes water-related cross-sectoral dynamics, thus bringing in a nexus approach and the developments in energy, agriculture and other related sectors that will impact water use.

Through the analysis, the aim is to produce an understanding of the needs, risks, and possibilities in the operating environment for water diplomacy, and what kind of forward-looking and preventative actions are needed. Based on this reflection, it can produce preliminary recommendations or possible courses of action for water diplomacy measures or policies to be implemented in the specific context. The final formulation of the outcomes and recommendations of the analysis will inevitably be shaped according to the needs of the intended target audience and the initial objectives set for the work. This analysis of Central Asia is primarily intended for the use of the Finnish Ministry for Foreign Affairs, Ministry of Agriculture and Forestry, and Ministry of the Environment.

/ 3

3. CENTRAL ASIA WATER DIPLOMACY CONFLICT ANALYSIS

3.1. PROFILE

3.1.1. Socio-economic and political context

ECONOMIC STRUCTURE AND KEY LIVELIHOODS

Water-intensive industries

All the Central Asian countries are reliant on the extraction of natural resources. Kazakhstan in particular has rich hydrocarbon resources that have made it the major economic power among the Central Asian countries.¹³ Hydrocarbons also are central to Turkmenistan's economy.¹⁴ Hydropower is another major energy source in the region, with a majority of the production focused on the upstream countries of Kyrgyzstan and Tajikistan. Uzbekistan, on the other hand, is a major producer of cotton – a highly water-intensive crop.¹⁵

These production patterns also feed into one of the key dynamics between the countries in the region. The upstream states, Kyrgyzstan and Tajikistan, do not have major hydrocarbon reserves and therefore rely on energy imports from the downstream countries, Kazakhstan, Turkmenistan and Uzbekistan, especially in the winter when demand for electricity is high and their own hydropower production is low. Contrarily, the

¹³ Zonn et al. 2018a.

¹⁴ Spaiser 2018.

¹⁵ Moss and Dobner 2016.

downstream countries are reliant on the upstream countries for their water supply.¹⁶ In other words, the countries in the region are competing for the same resources but also have an interest in sharing access. The water-energy-food nexus is thus an integral part of the regional dynamic.

Significant reliance on agriculture

Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan all rely heavily on agriculture as a source of income. Irrigation-heavy crops like cotton are common throughout the region.¹⁷ Water access is therefore an important question, especially for the downstream countries. At the same time, the countries and their economies are vulnerable to climate conditions that could lead to crop failure.¹⁸

High economic and social inequality

There are considerable differences in income levels both within the countries and between them. Kazakhstan is the main economic power with relatively good economic growth, a well-developed industry, significant hydrocarbon and other resources and the second largest population.¹⁹ Meanwhile, Kyrgyzstan, Tajikistan and Uzbekistan are all lower middle-income countries and Turkmenistan is a higher middle-income country.²⁰

Inequality between rural and urban populations is also high and rising in all Central Asian countries.²¹ Rural incomes tend to be lower and the livelihoods more vulnerable. Inequality also extends beyond incomes, as there are sometimes striking differences in access to basic services, including drinking water and sanitation, between rural and urban areas.²² In addition, the rural population is often side-lined in relevant political institutions and decision-making bodies. For instance, in Uzbekistan, farmers have very limited influence in Water User Associations (WUAs) that have been created to resolve disputes about water allocation.²³

Gender inequality factors into social development in Central Asia in several ways. The countries of the region have traditionally been seen as patriarchal societies where the role of women has focused on taking care of the household and family. While women's education levels and

16 Zonn et al. 2018b.

17 Salminen et al. 2019.

18 Expert Working Group on Climate-related Security Risks 2018.

19 Zhiltsov et al. 2018c.

20 The World Bank 2022.

21 Zhiltsov et al. 2018a.

22 E.g. Zhiltsov et al. 2018c; Peña-Ramos et al. 2021.

23 Moss and Hamidov 2016.

participation in the job market have been rising, they tend to work in informal employment and with lower pay far more often. Female-led rural households are particularly exposed to poverty. Women also remain underrepresented in decision-making and political institutions, which may end up perpetuating the gender imbalance in societal life. This means that a large amount of economic and social potential of the countries remains untapped.²⁴

Both economic and social inequality have contributed to marginalization and societal disintegration. Repressive and authoritarian governance further exacerbates poverty and inequality and erodes societal resilience. For example, in Turkmenistan, the government's response to the COVID-19 pandemic was marked by heavy restrictions and misinformation, which further deteriorated the already dire economic situation.²⁵ Combined with likely increasing disruptions to agricultural livelihoods due to climate impacts, underlying socio-economic inequality may contribute to a sense of injustice and add to the likelihood of protest or unrest.²⁶

HISTORICAL AND POLITICAL CONTEXT

The Central Asian countries have been independent for over 30 years, meaning that not every aspect of their political cultures or societies can be explained through the Soviet experience. However, the period as part of the Soviet Union did lead to institutional, political, cultural and economic arrangements that still have significant ramifications today. Many of these will feature in more detail later in the analysis, but some overarching characteristics can be discerned.

First, the past system influences the present structures of economic production. During the Soviet era, the countries were economically tied to the imperial centre in Moscow and self-sufficiency was not a concern. In the context of the command economy, the Central Asian republics were therefore seen as a hub for agricultural production and often highly specialized in a specific crop, such as cotton in Uzbekistan.²⁷ This legacy has shaped the structures of production in the countries, and their dependence on key products and sectors largely remains to this day. Slow progress in the diversification of livelihoods also makes the countries

24 Lerman 2021.

25 Schweitzer 2022.

26 Expert Working Group on Climate-related Security Risks 2018.

27 Fazendeiro 2018.

more vulnerable if climate-related, economic or other shocks hit crucial industries.

Production patterns from Soviet times may have also contributed to competition for resources between the countries. While the Soviet system set out to ensure that all regions would have the resources they needed through centralized planning, the newly independent states were left to fend for themselves. The need to secure access to key resources like water has been one stumbling block in the, sometimes tense, relations between the countries.²⁸

The same centralized structure may also have hindered the creation of closer regional ties and cooperation. In the Soviet period, Moscow was the main centre through which logistical routes and communications ran. In the post-Soviet period, bilateral or regional contacts have been slow to develop.²⁹ As independent states, the Central Asian republics continued to be more dependent on Russia than on each other.

One of the most problematic Soviet legacies from the view of regional relations is the way in which borders between the republics were drawn with little attention to cultural or ethnic considerations. The Soviet era borders, which largely remained as the republics became independent, cut through cultural and linguistic zones, setting apart and forcing together groups regardless of their ethnic background or historical traditions.³⁰ Between Kyrgyzstan, Tajikistan and Uzbekistan, some borders remain disputed to this day, and the Ferghana Valley is marked by enclaves where a territorial unit of one state is fully surrounded by another state.³¹ This has set the stage for several border conflicts that still remain unresolved, leading to sometimes violent clashes at the local level and protracted tension at the regional level.

The Soviet era patterns are also visible in the institutional setting and governance culture within the countries. State-centred governance and top-down procedures are common, and participatory forms of governance are not the norm. This has led to institutional path dependencies and rigidity in adopting new practices. In the water sector, this means, among other things, that water allocation follows a top-down procedure that is not always ideal for adapting to prevailing weather and other conditions.³² Some efforts have been taken to promote more participatory governance, but implementation has been difficult. For example, in Kazakhstan and

28 Zonn et al. 2020.

29 Spaiser 2018; Anceschi 2020.

30 Spaiser 2018.

31 Kuchins et al. 2015.

32 Amirova et al. 2019.

Uzbekistan, Water User Associations (WUAs) set up to promote local-level democratization and self-governance in water management have run into conflicts with top-down government initiatives and a lack of resources and capacity for the WUA members to fully participate.³³

TENSIONS IN REGIONAL RELATIONS

Although the Central Asian states do interact through some international formats, they do not have close ties and a sense of regionalism between them has not emerged. After independence, Central Asian political elites have aimed to construct distinct national identities rather than pressing for closer regional cooperation. At the same time, the countries have had bilateral challenges related to border demarcation disputes, water allocation and energy supplies, which have further complicated regional relations.³⁴

Meanwhile, wider geopolitical interests are also being reinforced. Russia has traditionally been the main influence in Central Asia,³⁵ but its role is likely to go through some changes in the aftermath of its attack on Ukraine in 2022. At the same time, Chinese interests in the natural resources and potential infrastructure projects in the region, as well as in political terms, have been rising.³⁶

Despite tensions and occasional eruptions of violence at the local level, a region-wide conflict between the Central Asian states is not considered imminent or likely in the prevailing circumstances. However, the relations between the Central Asian states and the interests of the neighbouring countries are important for understanding the context and will therefore be discussed in more detail at various points in the analysis.

DEMOGRAPHIC FACTORS

Population growth is relatively high throughout Central Asia, particularly in Uzbekistan and Tajikistan. The population is also relatively young and educated. This suggests a large number of people entering the workforce each year expecting to find worthwhile employment, which has not been happening with the present economic growth rates. At the same time,

33 *ibid.*

34 Spaiser 2018.

35 Laruelle 2022.

36 Kassenova 2022.

young people have the potential to push for new ideas and innovation, unlocking some of the institutional path dependencies mentioned above.³⁷

Population growth is a particular risk factor in areas that are already conflict-prone and in which natural resource use is high. For example, in the Fergana Valley, population growth puts additional stress on already highly exploited water and land resources and land grabs are common. The Tajik and Uzbek populations in the region are growing much faster than the Kyrgyz population which has contributed to heightened tensions between the different groups.³⁸

Migration from Central Asia, especially to Russia, has been common. About two million people from Uzbekistan, 1,6 million from Tajikistan and 600,000 from Kyrgyzstan currently live and work in Russia. The high number of migrants has a considerable impact on the countries, especially Tajikistan with one in six citizens residing in Russia.³⁹ Migration provides an additional opportunity for unemployed people, thus alleviating pressure, especially for young people entering the job market. The migrants also send back remittances, which has an economy-wide significance, especially in Kyrgyzstan and Tajikistan.⁴⁰

However, migration also makes the countries highly dependent on the Russian economy. In the aftermath of Russia's attack on Ukraine, the situation is volatile, with the potential that the number of remittances sent home by migrant workers abroad will considerably drop and a flow of workers will return. This could have a highly disruptive effect on both the economy and society throughout the Central Asian countries. So far, such a development has not been seen on a massive scale, but the final magnitude of the impact will depend on the consequences to the Russian economy.⁴¹

3.1.2. Political institutions and societal and international structures

WEAK DEMOCRATIC DEVELOPMENT

The Central Asian countries have varied but generally low levels of democratization. While the situation has, to some extent, fluctuated over the

37 Stronski and Zanca 2019.

38 Expert Working Group on Climate-related Security Risks 2018.

39 Heusala and Eraliev 2022.

40 Jardine 2022.

41 Heusala and Eraliev 2022.

recent years,⁴² none of the countries are classed as free and democratic in international rankings.⁴³ In many ways, the lack of good governance holds back development and maintains a sense of instability and insecurity among the citizens.

In Kazakhstan, the sudden transition of power from long-time ruler Nursultan Nazarbayev to Kassym-Jomart Tokayev in 2019 has been questioned as non-democratic. The continuity engrained in the transition of power has been welcomed by some as a sign of stability but challenged by others due to the lack of political reform.⁴⁴ Nazarbayev's reign was authoritarian, while Tokayev's political path appears to still be taking shape.⁴⁵ It will likely be affected by the events of January 2022, when a mass protest against poverty and economic inequality occurred. The protests turned violent and were suppressed by force as well as assistance from the Russia-led Collective Security Treaty Organization (CSTO). However, the events led to the evolution and consolidation of a culture of protests, which may suggest increasing civil action in the coming years.⁴⁶

Kyrgyzstan has suffered from a tumultuous political landscape and weak state structures. Since its independence, the country has experienced three revolutions and seen several outbreaks of violence.⁴⁷ Current president Sadyr Japarov rose to power from a revolution in 2021 and has shown signs of attempts to accumulate power through controversial plans for constitutional changes⁴⁸ Although authoritarian tendencies are visible in the Kyrgyzstani political system, it still remains competitive rather than the kind of hegemonic authoritarianism some of its neighbours experience. On the other hand, the weakness of the state in Kyrgyzstan has contributed to the insecurity of its citizens through crime and ethnic violence and held back its ability to participate in international processes and cooperation.⁴⁹

For Tajikistan, stability has been a high priority since its civil war (1992-1997).⁵⁰ Tajikistan's authoritarian president, Emomali Rahmon, has used security concerns as justification to consolidate power, for example, by pressuring media and using extremism charges to confine his political

42 Expert Working Group on Climate-related Security Risks 2018.

43 See e.g., Freedom House 2022.

44 Isaacs 2020.

45 Ibadildin and Pisareva 2020.

46 Kudaibergenova and Laruelle 2022.

47 Ash 2022.

48 Meyer 2022.

49 Ash 2022; Toktomushev 2017.

50 Kuchins et al. 2015.

opponents. When widespread protests erupted in the Gorno-Badakhshan Autonomous Oblast (GBAO) in November 2021, the government responded with heavy use of force and other repressive measures, such as an internet shutdown.⁵¹ The regime has been described as one of nepotistic kleptocracy, with Rahmon's family also holding control over much of the country's economy.⁵² These tendencies have a highly restrictive effect on Tajikistan's civil society, economic development and other aspects of society.

Among the Central Asian states, Turkmenistan remains particularly isolated.⁵³ Previous president Saparmurat Niyazov created a highly repressive political system based on his own personalised power. His successor Gurbanguly Berdymukhamedov maintained the model, holding a dominant position in the state's monopoly on the use of force and steering domestic and foreign policy.⁵⁴ Through snap elections held in March 2022, Berdymukhamedov yielded power to his son Serdar Berdymukhamedov, who is expected to maintain the basic structure of the political system.⁵⁵ While Turkmenistan has been showing signs of wanting to present itself as a hub for trade and transport, its authoritarianism, corruption, isolation, and extremely unfavourable investment climate are acting as barriers.⁵⁶

After the death of Uzbekistan's despotic leader Islam Karimov in 2016, the transition of power to his successor, Shavkat Mirziyoyev, sparked some hopes of a new openness in the country.⁵⁷ Mirziyoyev has set programmes in motion for innovation and more engaging foreign policy, including regional interactions through consultative meetings of presidents. However, the autocratic system of Karimov's time is still in place in a more modern form. While the country formally had, and continues to have, the hallmarks of democratic governance, its electoral legislation and procedures do not enable genuine participation or debate. Transition to a democratic system would require comprehensive reform.⁵⁸

Overall, rigid hierarchy and nepotism are common in the governance structures in the region, and heads of state in all countries except Kyrgyzstan have tended to stay in power until they pass away or nominate a successor.⁵⁹ Media is controlled, and open public debate restricted. Civil

51 OHCHR 2022.

52 Freedom House 2022.

53 Yakubov 2021.

54 BTI Transformation Index 2022a.

55 Bohr 2022.

56 Kuchins et al. 2015

57 MFA reports, personal communications with Finnish MFA officials.

58 BTI Transformation Index.

59 Expert Working Group on Climate-related Security Risks 2018.

society organisations do function, but their ability to engage in politics is restricted and varies from one country to another. For example in Uzbekistan, most NGOs are actually government-organized non-governmental organisations (GONGOS), funded by and affiliated with the regime, and they work on social issues rather than political.⁶⁰ Kyrgyzstan has a high number of independent NGOs, but a majority remain inactive while the few active ones rely on foreign funding.⁶¹ Meanwhile in Turkmenistan, NGOs are virtually non-existent and civil society organisations overall are only able to function under close control by the state.⁶²

LACK OF TRUST IN STATE INSTITUTIONS

Years of authoritarian rule have left their mark on public engagement and participation in Central Asia. A lack of trust in decision-makers, the state and the public sphere is consistent throughout the region.⁶³ For example, in Uzbekistan, democratic institutions are in place but their functioning is largely under the grip of the political regime. Even after Mirziyoyev's rise to power, institutional reform has progressed slowly.⁶⁴ Meanwhile, in Turkmenistan, democratically functioning institutions do not exist and attempts to create them are minimal, if not non-existent.⁶⁵

In Kyrgyzstan, on the other hand, constant political upheaval has not been conducive to the emergence of trust in institutions and the state. On the contrary, the state has remained too weak to ensure the provision of basic services like water supply to a relatively large portion of its citizens. Dissatisfaction among some parts of the population has led to recurring protests and three successful efforts to topple presidents.⁶⁶

The lack of trust, whether due to authoritarian rule or instability, is likely to have a detrimental effect on the societal and political cohesion of the countries. This will have implications and potentially hold back development on all sectors of society, including water governance and infrastructure.

60 BTI Transformation Index 2022b

61 BTI Transformation Index 2022c.

62 BTI Transformation Index 2022a; 2022b.

63 Expert Working Group on Climate-related Security Risks 2018.

64 BTI Transformation Index 2022b.

65 BTI Transformation Index 2022a.

66 BTI Transformation Index 2022c.

HIGH LEVELS OF CORRUPTION

Corruption is pervasive in all Central Asian countries. In 2019, they all scored well below the global average of 43 on the corruption perceptions index. Kazakhstan has the highest score at 34 while Turkmenistan has the lowest at 19.⁶⁷ Such deeply engrained corruption is not only detrimental to the economy but also has implications for the security and stability of the countries. Corruption enables organized crime and smuggling, which in turn contribute to insecurity, especially in more peripheral areas and regions where borders are contested. Illegal smuggling has also become an important source of income among security forces and officials.⁶⁸ Those involved in corruption therefore have little interest in ending it. At worst, it may be considered worthwhile to maintain low-level conflict dynamics in order to maintain the structures that enable corruption and cross-border crime.⁶⁹

Table 6 presents key characteristics of the socio-political context and political institutions in Central Asia. In particular, it provides an overview of some of the most significant features commonly shared among the countries. Though there also are important differences in the political developments and institutional settings between them, it is useful to note the prominent characteristics that can generally be observed throughout the region.

Socio-economic and political context	Characteristics of political institutions
Heavy and water-intensive industry	Weak democratic development
High reliance on agriculture as livelihood	
High economic and social inequality	Lack of trust in state institutions
Soviet past	
Tensions in regional relations	High level of corruption
Population growth and migration	

Table 6. Main elements of the socio-economic and political profile in Central Asia
Source: Authors' compilation

67 Lee-Jones 2021.

68 Tashtemkhanova et al. 2015.

69 MFA reports, personal communications with Finnish MFA officials.

INTERNATIONAL STRUCTURES

A thorough overview of all the international structures the Central Asian countries belong to is outside the scope of this study. However, some general observations can be made regarding the countries' international partnerships.

All the countries are members of the UN and participating states of the OSCE. The UN also has a regional structure, the United Nations Regional Center for Preventive Diplomacy for Central Asia (UNRCCA). They also all belong to several other multilateral structures like the International Monetary Fund (IMF). All the countries are on the list of the OECD's Development Assistance Committee (DAC) list of ODA Recipients, meaning that they are eligible to receive official development assistance (ODA).

When it comes to broad, regionally-based organisations, the picture is far more varied. Only Kazakhstan and Kyrgyzstan are members of the Eurasian Economic Union (EAEU), which is a Russian-led initiative for political and economic integration in the former Soviet region. Uzbekistan has so far remained an observer state,⁷⁰ while Turkmenistan sticks to its policy of neutrality.⁷¹ Tajikistan has negotiated joining the EAEU, but so far has deemed it not economically viable.⁷² Meanwhile, the motivation behind the EAEU is not purely economic, but rather it has been a part of Putin's idea of a multipolar world where Russia and its partners constitute a powerful pole of influence. As Central Asia is a geopolitically crucial region for Russia, the countries' reluctance to join may hamper the credibility of the Union.⁷³ At the same time, the different policies among the countries may also be a cause of further instability. Tajikistan's position outside the Union has increased the fuel price disparity with neighbouring Kyrgyzstan, where the price was already considerably cheaper before EAEU membership. The situation has fed the black market economy with contraband fuel imports.⁷⁴

Kazakhstan, Kyrgyzstan and Tajikistan are members of the Collective Security Treaty Organization (CSTO), which is a Eurasian military alliance also largely seen as a Russian tool to promote military cooperation and maintain influence in the region⁷⁵. Uzbekistan was also a member but sus-

70 BTI Transformation Index 2022b.

71 BTI Transformation Index 2022a.

72 BTI Transformation Index 2022d.

73 Spaiser 2018.

74 McGlinchey and Juraev 2022.

75 Scobell et al. 2014.

pended its membership in 2012,⁷⁶ while Turkmenistan has also prioritized its neutrality with regard to the CSTO.⁷⁷ The relevance of the CSTO for Central Asia was evidenced in January 2022 in Kazakhstan, where the CSTO intervened to help the government stifle protests sparked by economic and social discontent. The move was seen to solidify Russia's role as the main security guarantor in the region.⁷⁸ More recently, however, the role of the CSTO has been largely discredited as it failed to support Armenia in the face of an attack by Azerbaijan and remained passive with regards to violent clashes between its two member states, Tajikistan and Kyrgyzstan, during the autumn of 2022.⁷⁹

All the Central Asian countries apart from Turkmenistan are members of the Shanghai Cooperation Organization (SCO), a security organisation led by China and described as its tool to consolidate influence and aim for the creation of Chinese-sponsored multilateral security architecture in the region.⁸⁰ China views the SCO as a management mechanism to avert conflict among members. This is relevant, for example, regarding the water disputes between Tajikistan and Kyrgyzstan, which, in the Chinese view, would be better to resolve than allowed to slide into more acute conflict.⁸¹ However, even the SCO has not been able to prevent or fully address the violence that erupted between the two countries in the autumn of 2022.

Overall, internal politics and the personal aims of authoritarian leaders have affected international partnerships between the Central Asian countries. The level of commitment to cooperation also varies between the countries. In particular, Uzbekistan has a reputation for joining and leaving multilateral organisations as its implementation of its policy of sovereignty has fluctuated over time.⁸² Meanwhile, Turkmenistan cites its policy of neutrality as a reason for not joining multilateral organisations, but this is generally seen as a cover for isolating the country in order to maintain regime stability.⁸³ On the other hand, the position of both Tajikistan and Kyrgyzstan as partners in international cooperation

76 Mashrab 2021.

77 Kuchins et al. 2015.

78 Gleason and Dunay 2022.

79 Tsybulenko 2022.

80 Scobell et al. 2014.

81 *ibid.*

82 Fazendeiro 2018.

83 BTI Transformation Index 2022a.

is hindered by weak governance and the questionable legitimacy of the governments that have seized power.⁸⁴

REGIONAL STRUCTURES

Regional cooperation in Central Asia has remained relatively weak. Although various initiatives and projects have been put forth since their independence, a credible institutional setting has not emerged. This is due in part to a prioritization of a more international orientation in some of the countries, particularly Kazakhstan, but also disputes, such as the relations between Tajikistan, Uzbekistan and Kyrgyzstan in the Ferghana Valley.⁸⁵ Moreover, the countries have tended to maximize their national sovereignty, which has made them reluctant to yield power to supranational institutions.⁸⁶ Internal strife, especially in Tajikistan, has also hindered engagement in deeper regional cooperation.⁸⁷ In addition, in the largely authoritarian systems of the countries in the region, poor personal relations between the heads of state have also contributed to a lack of interest in regional integration.⁸⁸ However, at the same time, authoritarian rule as such does not always rule out cooperation if it is considered to be in the interest of those in power. For example, in Kyrgyzstan, political instability and weak governance have sometimes proved to be more difficult obstacles to overcome.⁸⁹

Some degree of cooperation on specific issues has advanced – water being a significant example, as will be discussed in detail in the subsequent section – yet an overarching structure for economic and political ties is missing. This, in turn, may hold back some of the potential advance in issue-specific regional relations as well, as there is a lack of harmonization in cross-sectoral issues at the regional and national levels.⁹⁰

Since the onset of Uzbekistan's more open political orientation, associated with President Mirziyoyev's rise to power in 2016, the country has demonstrated a commitment to promoting a more solid regional agenda. The establishment of a new platform for regional interactions through the consultative meetings of presidents – most recently held

84 BTI Transformation Index 2022d; BTI Transformation Index 2022d.

85 Anceschi 2020; Kuchins et al. 2015.

86 Spaiser 2018.

87 Anceschi 2020.

88 Ibid.

89 BTI Transformation Index 2022c.

90 Zhiltsov et al. 2020.

in Kyrgyzstan in July 2022⁹¹ – and the, at least outward, willingness of other regional heads of state to participate show some signs that a new regional mechanism could emerge. However, many of the old problems and obstacles to cooperation continue to exist. At the same time, the changing geopolitical situation after the Russian attack on Ukraine could also have unforeseeable impacts on the interaction between the Central Asian countries.

3.1.3. Water resources, their governance institutions and future scenarios

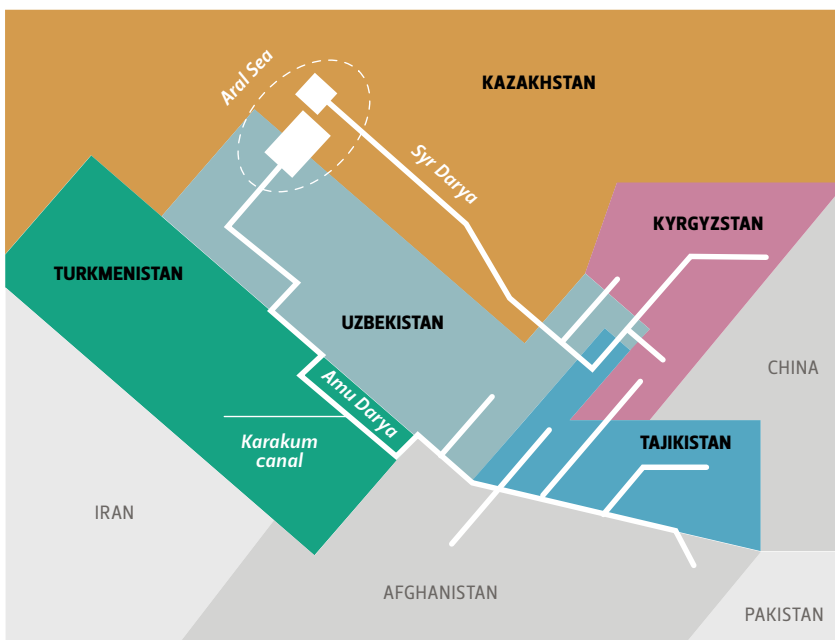


Image 3. Illustration of water resources in Central Asia
 Source: World Bank Group (2020), "Central Asia: Towards Water-Secure Sustainable Economies"

WATER RESOURCES

Central Asia is not water scarce in terms of total water supply for the region; rather, abundant and adequate water resources are technically available. However, access to water is limited by excessive use and inequal management of the resource.⁹² Water resources are unequally distributed

91 The Ministry of Foreign Affairs of the Kyrgyz Republic 2022.

92 Rheinbay et al. 2021.; Zhiltsov et al. 2018c.

in the region, as the upstream states of Tajikistan and Kyrgyzstan have the natural upper hand in terms of access over the downstream countries of Kazakhstan, Turkmenistan and Uzbekistan. This means the water access of the downstream countries is vulnerable. However, the dependence of the upstream countries on the hydrocarbon production in the downstream countries creates a more complex relationship. As a result, water and energy have been defining factors of interstate and intercommunal relations in Central Asia since the states became independent in the early 1990s.⁹³

The majority of water used in Central Asia comes from two rivers, the Amu Darya (traversing Afghanistan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) and the Syr Darya (Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan). Other large and important transboundary rivers include the Talas and Chu rivers (Kazakhstan, Kyrgyzstan), and Tarim (Tajikistan, Kyrgyzstan) and Murgab (Kazakhstan, Turkmenistan). Kazakhstan and Turkmenistan also share a number of rivers with China, Russia, Afghanistan and Iran. In addition, all six states in Central Asia are in the drainage basin of the Aral Sea, along with Afghanistan and Iran. A comprehensive overview of the water resources in the region is beyond the scope of this analysis, but such materials are available, for example, in the Water Yearbooks compiled by Interstate Commission for Water Coordination of Central Asia.⁹⁴

NATIONAL WATER GOVERNANCE

Kazakhstan has been the first country in Central Asia to develop the prerequisites for a transition towards Integrated Water Resources Management, but the transition is slow due to institutional and organizational weaknesses, structural and political constraints, and inadequate resources.⁹⁵ State management of water resources is coordinated by the government, where it is the responsibility of the Committee for Water Resources at the Ministry of Ecology, Geology and Natural Resources (MEGNR).⁹⁶ In addition, water management is done by local representative and executive bodies and other state bodies within their competencies. At the national level, state water resource management and conservation are

93 Expert Working Group on Climate-related Security Risks 2018.

94 ICWC 2022.

95 Zhupankhan et al. 2018.

96 SIC ICWC 2021.

implemented by the Water Resources Committee of the Ministry of Agriculture and its basin water management units (BVOS).⁹⁷

Kazakhstan is a downstream country, which means it needs to rely on the upstream countries for access to water for irrigation. This has given incentives to save water. The country has approved a Water Management Program for 2020–2030 which aims to reduce water consumption from 91,2 to 73,0 m³ per \$1,000 by 2030. This entails both new infrastructure, such as reservoirs, and change in practices for water saving.⁹⁸ However, Kazakhstan has also previously taken steps to improve its water access, for example, through the construction of the Koksaray counter regulator to alleviate seasonal fluctuations in irrigation water, which could increase the water intake of the country.⁹⁹

In Kyrgyzstan, the law does not clearly define the responsibilities of different institutions related to water management.¹⁰⁰ However, in 2021, the country established the Ministry of Agriculture, Water Management and Regional Development, which also became responsible for the State Water Resources Agency, separate from the Department for Drinking Water Supply and Sanitation, which was transferred to the Ministry of Transport, Architecture, Construction and Communications.¹⁰¹

As an upstream country that lacks hydrocarbon resources, Kyrgyzstan is in need of hydropower. It has pursued a policy of full control over its water resources and has suggested neighbouring downstream countries pay a fee for water, mainly to reflect water infrastructure needs. This is a significant issue for the country as the maintenance of hydraulic structures and hydropower currently takes up almost a fifth of Kyrgyzstan's budget. According to Kyrgyz authorities, the country would gain about 350 million dollars annually if Kazakhstan and Uzbekistan paid even the lowest proposed price for their water. Kazakhstan and Uzbekistan, on the other hand, have voiced strong opposition to the plan.¹⁰²

Tajikistan initiated water sector reform at the national level in the early 2000s and has a legal framework leaning towards IWRM.¹⁰³ The work is still ongoing and in 2020, the country adopted several key documents guiding governance over the water sector. These include a law on Water User Associations (WUAs), setting an economic, institutional and

97 Zhupankhan et al. 2018.

98 SIC ICWC 2021.

99 Zhiltsov et al. 2018b.

100 Zhiltsov et al. 2018a.

101 SIC ICWC 2021.

102 Zhiltsov et al. 2018b.

103 Church 2017.

legal framework for WUA activities, as well as two documents on the development of basin water plans and for the establishment and functioning of river basin councils.¹⁰⁴

As an upstream country, Tajikistan has abundant water resources and relies heavily on hydropower as an area of competitive advantage. The importance of water is accentuated by the fact that, as a small low-income country, it has few alternative sources of income or leverages for power. Tajikistan has strongly stood by its aims to construct additional hydropower plants on transboundary rivers, most importantly the Rogun dam, which has been a recurring topic of dispute and poor relations with Uzbekistan, although less so during Mirziyoyev's term. Meanwhile, Tajikistan has been able to position itself with the fellow upstream country Kyrgyzstan on water allocation, but due to a lingering border conflict between the two countries, this has not led to broader cooperation.¹⁰⁵

In Turkmenistan, water legislation was changed in 2004 and 2016, but there has been little follow-up to the implementation of the changes or their impacts.¹⁰⁶ The country has also recently implemented measures to save water as a part of a programme for socio-economic development, for example, through the installation of water meters along the Murgab river.¹⁰⁷ The country is highly reliant on water for all its economic activities, particularly irrigation for agriculture but also for cooling its fossil fuel plants.¹⁰⁸ Turkmenistan is carrying out large-scale construction work on its transboundary rivers, such as the Zeyd water reservoir which is to be filled from the Amu Darya. Along with other planned projects, the total reservoir capacity of the country would significantly increase. This is likely to further increase pressure on water resources in the Central Asian region.¹⁰⁹

In Uzbekistan, the Law on Water and Water Use sets rules for water use and water consumption for irrigation, water extraction and consumption.¹¹⁰ The new legislation places a greater emphasis on water and energy conservation than its predecessor while also setting rules governing authorities' actions to the use of transboundary streams and interaction with neighbouring countries.¹¹¹ However, the state funds and controls

104 SIC ICWC 2021.

105 Kuchins et al. 2015.

106 Yakubov, M. 2021.

107 SIC ICWC 2021.

108 Pohl et al. 2017.

109 Zhiltsov et al. 2018b.

110 Kuzmina 2018.

111 Kuzmina 2018.

all aspects of water management and the legal system protects the state's ownership of all essential water. The law provides little platform for water users to participate in water management. Although WUAs are in place, they are organized top down in a hierarchical manner, often leaving water users out of actual consultations.¹¹²

Uzbekistan accounts for almost half of the water consumption in Central Asia. As a downstream country, it is therefore highly dependent on the other countries for water and acutely interested in any plans that could limit its access. The majority of water is used for cotton farming. Despite land reform, Uzbekistan has continued to allow state quotas for cotton to dominate production and has therefore been unable to limit its dependency on the product.¹¹³ In the recent years, Uzbekistan has also been developing and modernizing its hydropower sector, suggesting an ever-growing need for water.¹¹⁴

A unifying factor in all the key documents of all Central Asian countries is that they explicitly define water as a resource owned by the state.¹¹⁵ For example, according to the law On Water and Water Use in Uzbekistan, water is a property protected by the state.¹¹⁶ The law in upstream countries Kyrgyzstan and Tajikistan further highlights the rights of the countries to the water resources within their borders and note that it has a price.¹¹⁷ Such state emphasis on water as a resource accentuates its importance and may enable more effective direct negotiations between the states on transboundary water as the nations clearly own the water resources in their own territories. However, this makes the role of water strategic, which may complicate efforts to compromise or cooperate on water use with external actors. This has often stood in the way of closer regional cooperation on water, as discussed in more detail in the subsequent section.

REGIONAL WATER GOVERNANCE

There are solid foundations for regional dialogue and consultation on water in Central Asia. There is a wealth of institutional arrangements for transboundary water governance, the majority dating from the period

112 Kuzmina 2018.

113 Moss and Dobner 2016.

114 Kuzmina 2018.

115 Zhiltsov et al. 2018b.

116 Kuzmina 2018, 202.

117 Zhiltsov et al. 2018b

soon after the countries became independent as there was a willingness to ensure new structures to replace the Moscow-centred ones of the Soviet period.¹¹⁸ In 1991, the newly independent Central Asian states adopted the Tashkent Declaration as a starting point for negotiations on the joint use of water in transboundary rivers. This paved the way for the Inter-governmental Agreement on Cooperation in Joint Management of the Use and Protection of Transboundary Water Resources and the Agreement on the Establishment of the Interstate Commission for Water Coordination (ICWC), signed in Almaty in 1992. The Almaty agreement provides the grounds for regional water governance, as the countries committed to maintaining the existing regime of water resources management in the Amu Darya and Syr Darya basins and to the established annual distribution of water among the countries of the Aral Sea basin.¹¹⁹

The other result of the Almaty agreement, *Interstate Commission for Water Coordination (ICWC)*, functions as a regional body that deals with issues related to the control, efficient use of, and protection of water from interstate sources in the Aral Sea basin. The ICWC also implements jointly-developed water cooperation programs between the countries. Its constituent parties are ministries or other state-level entities of each Central Asian country, and it has several executive bodies, including Amu Darya and Syr Darya Basin Water Organisations (BWOs) as well as a Secretariat.¹²⁰ However, the authority of the ICWC is relatively weak, so cooperation within it has remained low.¹²¹ In addition, as it does not have representation from the energy or environmental sectors, its ability to effectively carry out its task of coordinating the management of water resources is hindered.¹²²

The *International Fund for Saving the Aral Sea (IFAS)* was established by a decision of the heads of the Central Asian states in 1993 with the aim of developing and funding environmental and applied research projects and programmes to improve the ecological situation in the areas affected by the Aral Sea catastrophe and to address the socio-economic issues in the region.¹²³ The IFAS has a fairly broad mandate, and its main objective is to finance and credit joint practical measures for the rehabilitation and protection of the Aral Sea and its basin as a whole. This has meant, for example, the establishment and maintenance of an interstate environmental

118 Spaiser 2018.

119 Zhiltsov et al. 2018b.

120 SIC ICWC 2021.

121 Suleimenova 2018.

122 Krasznai 2018.

123 Suleimenova 2018.

monitoring system, database and other information systems, as well as joint scientific and technological projects for the management of trans-boundary domestic waters.¹²⁴ The IFAS is an integral and important part of the regional water cooperation architecture, mainly because it brings together all five countries and is generally considered a legitimate actor in their views. However, it has remained severely underfunded throughout its existence.¹²⁵ As with the ICWC, the IFAS mandate also excludes the energy sector.¹²⁶ It is widely recognized that the structure and legal base of IFAS need comprehensive reform in order to better fit the needs of today.¹²⁷

The *Interstate Commission on Sustainable Development (ICSD)* was established in 1994 with the main purpose of coordinating and managing regional cooperation on the environment and sustainable development in the Central Asian countries. It is tasked with developing a regional strategy and programmes for sustainable development and coordinating activities under the obligations of transboundary environmental conventions.¹²⁸ The ICSD has cooperated with the UNECE on a programme on water, energy and environment¹²⁹ and a regional dialogue and cooperation on water resources management in Central Asia.¹³⁰ However, the work of the ICSD has been held back by a lack of support for decision-making as well as resources.¹³¹

Another relevant institution for the water sector is the Regional Environmental Center for Central Asia (CAREC), created in 2001 by a joint decision of the Central Asian states, the European Union and the United Nations Development Programme (UNDP). It is an independent, non-profit, non-political international organization, and has a mandate to assist the Central Asian governments, regional and international stakeholders and partners in their work environmental and sustainable development issues.¹³² CAREC is particularly tasked with the coordination of sustainable development, suggesting it has the potential for the kinds of cross sectoral perspectives often needed in water governance. It also provides a platform for cooperation between Central Asian and international counterparts, bringing together both government agencies and the NGO sector.¹³³

124 EC IFAS 2011a.

125 Krasznai 2018

126 *ibid.*

127 EC IFAS 2011a.

128 EC IFAS. 2011b.

129 UNECE (not dated).

130 UNECE 2021.

131 Krasznai 2018.

132 SIC ICWC 2021.

133 CAREC 2022.

There also are several transboundary water organisations in Central Asia, most importantly the Amu Darya and Syr Darya basin water organisations under the ICWC, well as the Chu-Talas Commission between Kazakhstan and Kyrgyzstan. These cooperation modalities have been important as platforms for dialogue and exchange of information as well as making it possible to share the cost of maintaining water infrastructure. However, high-level cooperation has remained inconsistent, and the capacity of the water management bodies has mostly been limited to dealing with short terms issues rather than long-term problem-solving. None of the transboundary bodies include energy in the scope of their mandate, which also limits their leverage on water-sharing.¹³⁴

The main region-wide bodies and organisations linked to water governance and cooperation in Central Asia are listed in Table 7. Regional cooperation also takes place within the auspices of international organisations. These will be looked at in more detail below in the ‘Actors’ section.

Despite the wealth of agreements, institutions and organisations, concrete cooperation on water governance among the Central Asian countries has been described as weak. One of the biggest reasons for this is the inability of any measure to solve or fully address the issue of water allocation thus far. While a system is in place through the Almaty agreement, it essentially replicates the allocation dating from Soviet times.¹³⁵ Through

Organisation	Focus
Interstate Commission for Water Coordination (ICWC)	Regional body addressing control, efficient use, and protection of water in the Aral Sea basin
International Fund for Saving the Aral Sea (IFAS)	Regional fund to develop, finance and provide credit for joint measures for the protection of the Aral Sea basin
Interstate Commission on Sustainable Development (ICSD)	Regional body to coordinate and manage regional cooperation on environment and sustainable development in Central Asia
Regional Environmental Center for Central Asia (CAREC)	Independent, not-for-profit, non-political international organisation to assist the Central Asian countries and partners on environmental and sustainable development issues

Table 7. Main bodies and organisations for regional water governance and cooperation in Central Asia

Source: Authors' compilation

¹³⁴ Pohl et al. 2017.

¹³⁵ Zonn et al. 2018b.

the present mechanisms, it has not been possible to address the opposing views of the countries, in particular the controversy between the downstream and upstream countries. The continuing deadlock has hindered the effectiveness and leverage of regional cooperation in general.¹³⁶

Overall, regional water institutions are considered weak and ineffective. They have little regulatory power, leaving the Central Asian states to manage their water access unilaterally.¹³⁷ Since a shared, effective legal framework that would allow for reform is missing, antagonistic solutions easily prevail over cooperative ones. In addition, as water disputes cannot be resolved through legal means, they tend to become politicized. Alternative dispute resolution and prevention tools like dialogue and mediation are therefore sorely needed.¹³⁸

3.2. ACTORS

3.2.1. (Potential) Conflict parties

Since there is no full-scale violent conflict between Central Asian countries at present, there are no parties to a conflict. Major conflict has not been considered imminent, and the countries do not have a history of recurring conflict with one another, so identifying them as potential conflict parties does not fully reflect the situation either. Here, they are discussed as the main actors in the region and, therefore, potential parties if conflict were to occur. It is beyond the scope of this study to analyse local and non-state actors in more detail; however, further study would be necessary to explore their role.

In the past, Kazakhstan and Uzbekistan have had strained relations, and the bilateral issues between them have also contributed to problems on a regional level. The two countries have, among other things, been rivals in their bilateral relations to Russia and for the role of leading power in the region. Their relations have also been hampered by the poor relations between the heads of state of the two countries, which in the sphere of personalised politics in Central Asia, has foreign policy implications. Therefore, the transition of power from Islam Karimov in Uzbekistan in 2016 and Nursultan Nazarbayev in Kazakhstan in 2019 has helped to considerably improve their bilateral relations.¹³⁹

136 Zonn et al. 2018b; Expert Working Group on Climate-related Security Risks 2018.

137 Rheinbay et al. 2021.

138 Expert Working Group on Climate-related Security Risks 2018.

139 Anceschi 2020.

Water issues have previously contributed to disputes between the two countries due to growing water intake by Uzbekistan from the Syr Darya River. Uzbekistan has also been accused of polluting the water before it flows to Kazakhstan. These issues have not been resolved and could become increasingly pressing if climate change lowers water levels in the Syr Darya.¹⁴⁰ More recently however, the improved bilateral relations have also been reflected in the water sector, to the extent that it could provide a field for closer cooperation. A good illustration of this is the aftermath of the Sardoba dam collapse in Uzbekistan in May 2020, which led to the evacuation of over 110,000 people and left more than 35,000 hectares of land flooded in Uzbekistan and Kazakhstan. The countries not only cooperated in the immediate recovery efforts but also took measures to strengthen the transboundary management of the shared water basin.¹⁴¹

Beyond the Central Asian countries, Kazakhstan's relations with China have been shaken in the recent years, particularly by the issue of water. In the Irtysh basin, Chinese plans to increase agriculture activities in Xinjiang would result in 40% less water flow to Kazakhstan by 2050.¹⁴² In addition, coordination between the two countries on water governance is weak and Kazakhstan does not have adequate administrative and bureaucratic resources to hold a strong position in negotiations with China.¹⁴³ However, open conflict with a geopolitical power like China would not be a realistic option for Kazakhstan. Instead, it becomes increasingly important for Kazakhstan to call for jointly-recognized cooperative measures for transboundary water management.

For Kyrgyzstan, the most critical situation is caused by recurring violent clashes with Tajikistan, especially in the border region in the Ferghana Valley. Previously, these have remained local cases that have not escalated into a broader conflict between the countries. However, in April 2021, a dispute at a water intake station in an area claimed by both Kyrgyzstan and Tajikistan turned into violent clashes and led to the armed forces of the two countries engaging each other. A ceasefire entered into force some days later, but the confrontation left 52 people dead.¹⁴⁴ In September 2022, exchanges of fire among border guards turned into broader violence during which over 100 people were killed and civilian infrastructure, especially on the Kyrgyzstani side, was deliberately destroyed.¹⁴⁵

¹⁴⁰ Zhiltsov et al. 2018c.

¹⁴¹ Geneva Water Hub 2020.

¹⁴² Zhiltsov et al. 2018c.

¹⁴³ Zheng 2021.

¹⁴⁴ Silvan, K 2021.

¹⁴⁵ Sultanalieva 2022.

The situation between Kyrgyzstan and Tajikistan remains uneasy and the initial causes of violence are far from resolved. Leaders in both countries have used the bilateral tensions to further their own political interests through populist rhetoric, including promises to resolve the border issues and secure the local population. The dispute has also diverted attention from domestic issues, including increased authoritarian measures in Tajikistan and severe criticism of the government in Kyrgyzstan. The leaders have therefore been reluctant to allow external involvement in the resolution of the tensions. On the other hand, the regional security organisations, the SCO or CSTO, have not taken the initiative to dissuade the recent escalations. The CSTO offered diplomatic mediation but has generally avoided intervening in conflicts taking place between its members. The SCO hardly addressed the clashes even though it held a summit of parties in Uzbekistan while the fighting took place. Although neither Russia or China wants instability to increase in Central Asia, the passive reactions to the recent clashes have been said to reveal the weakness of the organisations led by them to act as providers of stability and security in the region.¹⁴⁶

In addition to its border disputes with Kyrgyzstan, Tajikistan has strained relations with Uzbekistan. The management of the water-fuel exchange between the two countries suffers from old tensions as Uzbekistan has, on several occasions, closed borders and blocked fuel deliveries to Tajikistan, provoking energy shortages, especially in winter. Tajikistan's plans to construct a dam in Rogun have further aggravated the relationship in the past. Uzbekistan, as the downstream country, strongly opposed the dam during President Karimov's reign, arguing its own water access would be limited.¹⁴⁷ The situation has, however, been alleviated since Uzbekistan's new president Mirziyoyev came to power, to the extent that the country reversed its opposition and in June 2022, signed an agreement to commit to buying power from the plant.¹⁴⁸

Uzbekistan has also had difficult relations with Kyrgyzstan. A major factor has been the issue of unmarked borders, which has led to protracted dispute, especially in the Ferghana Valley. Water access has not been a major cause of these disputes but has been an additional factor affecting the tension between the two countries.¹⁴⁹

Turkmenistan has previously had problems in its relations with Uzbekistan, partly linked to the poor personal relations between the previous

146 Doolotkeldieva and Marat 2022.

147 Church 2018.

148 Eurasianet 2022.

149 Fazendeiro 2018; Kuchins et al. 2015.

presidents Niyazov and Karimov. However, Turkmenistan also has similar interests to Uzbekistan on regional trade, transportation, and infrastructure and, as they are both downstream countries, water governance. Turkmenistan also follows a policy of neutrality in regional relations but it has rather aimed to promote cooperation over antagonism between the countries.¹⁵⁰

3.2.2. Peace enablers

In the case of Central Asia, it is difficult to name any particular actors as peace enablers. Several institutional arrangements, most importantly the Almaty agreement, ensure that conditions for stability are maintained through the existing water allocation. The agreement is not an actor as such, however, rather made up of the actions of the Central Asian states as its signatories. While the countries do have the potential to act as peace enablers, none of them have succeeded in this role to the extent of effectively working to enable peace. Meanwhile, the Almaty agreement in itself also contains a caveat from the point of view of promoting peace in the long run, as it has locked the countries to a certain constellation of water allocation which has not been supportive to the kind of reform in water governance needed to ensure peaceful relations in the long run.¹⁵¹

A similar potential peace resource could be the UNECE Water Convention, or The Convention on the Protection and Use of Transboundary Watercourses and International Lakes, which was first adopted in 1992 in Helsinki. As a legally binding instrument to promote the sustainable management of shared water resources, the implementation of the Sustainable Development Goals, the prevention of conflicts and the promotion of peace and regional integration,¹⁵² it could serve as an internationally recognized tool for discussing water sharing and other issues related to water governance. However, the upstream countries, Kyrgyzstan and Tajikistan, are not parties to the Water Convention, so a genuine regional dialogue cannot take place under its auspices. Attitudes towards the Water Convention, and international water law in general, have only become stricter in the two countries during recent years as it is increasingly perceived as a hindrance to hydropower projects. Neither Kyrgyzstan nor Tajikistan is considering ratification to the Water Convention in the near future. However, this has not stopped them from actively participating in

¹⁵⁰ Kuchins et al. 2015.

¹⁵¹ Zhiltsov et al. 2018b.

¹⁵² UNECE 2022a.

the regional Work Programme of the Water Convention, which suggests that it may have some role discussions among the countries.¹⁵³

The regional water governance regimes introduced in the previous section have the potential to act as peace enablers. Despite also being made up of the participating states, they have a more actor-like structure with secretariats and decision-making systems. For example, the IFAS encompasses all the countries of the region and is perceived as a legitimate actor. Through the IFAS, as well as the ICWC and ICSD, the countries are able to maintain regional dialogue on water issues. However, as described in the previous section, the potential of the IFAS and the other regional actors is held back by the fact that they exclude most cross-sectoral aspects, most prominently energy. In addition, the organisations are too weak and under-resourced to work as platform for the resolution of problems.

Looking at the local level, water user associations (WUAs) could work as peace enablers. WUAs have been introduced in all of the countries, usually as a part of IWRM, and envisioned by donors as self-governing bodies of water users advancing the democratization of water management, improving water use efficiency and lowering costs while defusing conflicts. In this light, they could have the role of the first level of water governance, detecting and addressing local disputes. In practice, in the top-down system dating from Soviet times, however, they have usually been unable to work independently, instead ending up dominated by local authorities. They also tend to depend on international support, which prevents strategic long-term development of their work.¹⁵⁴ As a result, their role as peace enablers is limited, although there might be variation between countries and regions.

External actors, such as the EU, UN or individual countries, supporting water cooperation in Central Asia could also act as peace enablers. However, their influence is inevitably limited by their position as outsiders. The countries in the region tend to be wary of allowing outside actors to engage in what they perceive to be internal security matters.¹⁵⁵ Moreover, sustainable solutions to regional problems are unlikely to emerge if the main responsibility and ownership for them is carried by actors from outside the region. Therefore, the various organisations and countries relevant to water diplomacy in Central Asia are discussed here as external actors.

153 Libert 2018.

154 Moss and Hamidov 2016.

155 MFA reports, personal communications with Finnish MFA officials; Spaier 2018.

3.2.3. External actors

The EU has an interest in maintaining good relations with the Central Asian states and creating a security architecture that prevents potential instability from this region spreading to neighbouring areas. However, it has been questioned whether the EU has the resources, political leverage and will to be a major actor in the region.¹⁵⁶ Its advantage is that it is generally perceived positively in the region and as a potential counterbalancing power against Russia and China.¹⁵⁷ On the other hand, the EU is a latecomer to Central Asia, as its engagement only emerged during the 2000s and has been closely associated with its own security interests and aims to diversify energy resources.¹⁵⁸

Water and water diplomacy are prominently included in the EU's Central Asia Strategy, updated in 2019.¹⁵⁹ Previously, the EU has been one of the main international donors in water cooperation and a major assistance provider in the water-related conflict in Central Asia. According to some assessments, the EU is considered as one of the most "suitable" external actors to promote water cooperation in Central Asia because it is seen as less biased than many others.¹⁶⁰ On the other hand, the EU's approach to water conflict in Central Asia has also been criticized for being too technocratic and inconsistent. For example, its framework for IWRM is seen as too normative to fit the regional context, and its assistance to solve water disputes is reduced to reports, studies, and conferences that fail to produce significant political impact. The EU has also been criticized for not adequately addressing the entire water-energy nexus and its own role as a driver of water-intensive production through its cotton imports, rather than focusing on water quality issues within the region.¹⁶¹

The EU's Special Representative's (EUSR) office in Central Asia has also been active on the topic of water, mostly engaging in bilateral projects between the countries but also aiming to promote more transboundary basin cooperation. The EUSR has the advantage of being involved with high-level discussions among the governments. The present SR, Terhi Hakala, has been active on issues related to water diplomacy.¹⁶²

The EU also has a regional Team Europe Initiative on Water-Energy-Climate Change in Central Asia, which the EUSR's office is also

¹⁵⁶ Spaiser 2018.

¹⁵⁷ Spaiser 2018.

¹⁵⁸ Spaiser 2018.

¹⁵⁹ European Commission 2019.

¹⁶⁰ Spaiser 2018.

¹⁶¹ Spaiser 2018.

¹⁶² Background discussion with EUSR in Central Asia office 28.6.2022.

involved in. The project aims, among other things, to offer support in the transition towards a green economy and the promotion of food security, a low-carbon economy and a more diversified energy mix, while ensuring a more reliable and efficient energy supply. The work includes regional transboundary water governance and initiatives related to the Aral Sea.¹⁶³ In addition, the EU has water-related interests in the region as a part of the Connectivity programme and Global Gateway.¹⁶⁴

The United States' policy in Central Asia is security-driven and has a focus on Afghanistan and regional development. Therefore, it prioritizes energy and water issues from the point of view of regional development projects connecting South and Central Asia. It has aimed to enhance regional dialogue on transboundary rivers, establish national energy security policies, and to improve the management of water resources. USAID plays a crucial role in this, working to empower local communities, educate people, and introduce integrated water resource management.¹⁶⁵

Russia considers Central Asia as one of its most secure regions of influence. It has been argued that it cannot demonstrate its power without exerting influence over Central Asia. Russia has asserted its influence through economic ties and it is a leading power in several key sectors in the region, including energy.¹⁶⁶ With regard to water, Russia has some shared resources with the Central Asian states and participates in a Protocol on Cooperation in Protection and Use of Transboundary Waters of the Irtysh River with Kazakhstan.¹⁶⁷ However, it has not been perceived as a major donor or participant in regional water cooperation. Russia's main aims in the region have been to maintain its strategic interests as well as its status as a regional hegemon. To this end, it holds on to a strong military presence in Tajikistan and Kyrgyzstan and strengthened military ties with Kazakhstan. The EAEU and CSTO have also been important instruments for promoting Russian interests.¹⁶⁸

With regard to relations within the region, Russia has an interest in maintaining stability, as any major conflict in Central Asia could pose serious security threats to its borders.¹⁶⁹ It is not necessarily highly active in contributing to significantly improved cooperation or close ties between the countries – instead, a certain degree of detachment may work

163 European Union (not dated).

164 MFA reports, personal communications with Finnish MFA officials.

165 Ziegler 2022.

166 Spaiser 2018.

167 Zhiltsov et al. 2018c.

168 Laruelle, M. 2022.

169 Gleason and Dunay 2022.

in its favour by strengthening the dependency of individual countries on Russia as the regional hegemon.¹⁷⁰ However, acute conflict in Central Asia would be strictly against Russian interests, and the ability to counteract escalation is one reason for it to maintain a strong military presence in the region.¹⁷¹

Russia's attack on Ukraine in February 2022 and, in particular, the poor success of its initial plan have made its status as a regional hegemon in Central Asia all the more important as a sign of power.¹⁷² However, its role is in flux and difficult to estimate as the eventual ramifications of the Russian war are yet to be seen. The Central Asian countries are highly dependent on Russia in terms of both economy and security and their reaction to the attack on Ukraine so far has been described as one of strategic silence.¹⁷³ Some weak signs of challenging Russian policies have been discernible, such as efforts to work towards diversifying oil export routes away from Russia. For the most part, however, the reasons for wanting less interaction with Russia are pragmatic, such as concern over secondary sanctions and the need to mitigate the impact of Russia's economic downturn.¹⁷⁴ Meanwhile, Russian influence in Central Asia has already previously been challenged by China, whose relevance could now rise.¹⁷⁵

On the other hand, China has so far had varied interests and influence over the Central Asian states.¹⁷⁶ Chinese strategy has been one of soft influence in Central Asia, mainly through loans and agreements on disputed borders. China is the biggest provider of loans to Tajikistan, Kyrgyzstan and Turkmenistan.¹⁷⁷ China also has economic and security cooperation with Kazakhstan, although closer ties may, to some extent, be hampered by sinophobic tendencies on the Kazakhstani side.¹⁷⁸ Chinese investment plans are also harming Kazakhstan's water access, which is likely to be reflected in their bilateral relations to some extent even though Kazakhstan's leverage to influence China is low.¹⁷⁹

Chinese influence in Central Asia has been significantly increasing in diplomatic, military and economic terms since the early 2000s. One

170 Krapohl and Vasileva-Dienes 2020.

171 Laruelle 2022.

172 Ibid.

173 Dadabaev and Sonoda 2022.

174 Ibid.

175 Talant 2022.

176 Kizeková 2021.

177 Kassenova 2022.

178 Helf 2020; Umirbekov 2019.

179 Zonn et al. 2018a.

element has been the Belt and Road Initiative (BRI), which has increased Chinese investment in infrastructure projects in the region.¹⁸⁰ Although recent analyses suggest that BRI projects have worked less as an instrument of Chinese influence and more to promote the country's own economic interests.¹⁸¹ China's involvement in Central Asia has also promoted its political interests¹⁸² as well as China increasing its military and security cooperation with the countries of the region.¹⁸³

Rather than outright rivalry, the great powers have previously settled into a situation where Russia has a leading role as the main security provider, while China has tended to prioritize its economic and political leverage.¹⁸⁴ Even with its increasing influence, particularly in the security and military spheres, it is not clear whether China wants to be the leading security provider in the region. This constellation may be forced to change to some degree in the aftermath of Russia's war in Ukraine. So far, the passive reactions of both the CSTO and SCO to the violence between Kyrgyzstan and Tajikistan suggests neither regional power is racing the other to assume a role as the main mediator in Central Asia.

Germany has been an important actor in regional water and environmental cooperation in Central Asia for several years. In April 2007, the German Foreign Office launched the Berlin Process, which included a major contribution to EU water policies. The Process aimed, among other things, to promote transboundary water management, expand scientific knowledge and support networking between water experts in Germany, the EU, and Central Asia.¹⁸⁵ In 2019, the German Foreign Office started a new initiative called Green Central Asia (GCA) which aims to enhance environmental, climate and water resilience through collaboration and dialogue in the context of conflict prevention and strengthening transboundary cooperation. The initiative includes a regional water management programme, within which it coordinates an inter-governmental working group on water. The informal working group also takes into consideration the energy sector, which is not the norm in water cooperation in Central Asia, and has discussed the establishment of a regional energy mechanism. In addition, the GCA promotes climate sensitive IWRM through a basin dialogue on Amu Darya and Syr Darya in collaboration with the IFAS. It has also developed a river basin management plan

180 Nambiar 2021.

181 Kallio 2022.

182 Kizekova 2021.

183 Scobell et al. 2014.

184 Scobell et al. 2014; Kassenova 2022.

185 Spaiser 2018.

handbook proposing alternatives to the top-down water management approach from Soviet times.¹⁸⁶

The Swiss Development Cooperation agency (SDC) has been active on water issues in Central Asia through its Blue Peace initiative, which focuses on hydro-diplomacy. In Central Asia, Blue Peace has aimed to address questions related to competing water interests and support common solutions on water.¹⁸⁷ Beyond this, the SDC has engaged in a regional programme on ground water between Uzbekistan and Kazakhstan as well as cryosphere monitoring, forecasting and long-term analysis of climate impacts. It also cooperates with the World Bank on the Central Asia water and energy programme (CAWEP), financed by the EU and the governments of the United Kingdom and Switzerland. Through the CAWEP cooperation SDC also supports CAREC.¹⁸⁸

Finland is an increasingly important actor in the region and is particularly active in the water domain. Technical assistance on water quality monitoring laboratories has been provided for Kyrgyzstan since 2003 and Finland has been described as an important donor and assistance provider in the region, especially on water quality monitoring.¹⁸⁹ The major programme FinWater WEI, implemented by the Finnish Environment Institute, began water sector support in cooperation with Kyrgyzstan and Tajikistan in 2009. The first phase of FinWater WEI ended in 2014 but this was followed up with phase two from 2014-19. The main objective was to improve water security in Kyrgyzstan, Tajikistan and the region through equitable and integrated water resources management. This included reducing water-related risks through measures to support the countries in water resources management in a balanced, equitable and integrated manner. FinWater WEI also promoted a rights-based approach to water use and management.¹⁹⁰

In addition, Finland has supported the water sector in Central Asia through the Institutional Cooperation Instrument (ICI), which is used to support Finnish government agencies and public bodies in their participation in developmental cooperation. The third phase of FinWater WEI is being implemented by the Finnish Environment Institute as an ICI project from 2020 to 2023, with a particular focus on water quality monitoring in Kyrgyzstan and building the capacity of the local institutions – the State Agency for Environmental Protection and Forestry (SAEPF) and

186 Background discussion with GCA representative 2022.

187 Blue Peace Central Asia 2022.

188 Background discussion with a representative from SDC 2022.

189 Spaiser 2018.

190 Finnish Environment Institute 2020.

the Agency on Hydrometeorology (Kyrgyzhydromet).¹⁹¹ Meanwhile, the Geological Survey of Finland (GTK) had a two-phase ICI project on enhancing natural resource governance in Kyrgyzstan, with the first phase taking place between 2014–19 and second phase from 2020–22. In addition to strengthening the capacity of the State Committee for Industry, Energy and Subsoil Use of the Kyrgyz Republic on natural disaster risk management, the project has also monitored ground water.¹⁹² The Finnish Meteorological Institute (FMI) also had an ICI project on developing the capacity of the Kyrgyzstani Kyrgyzhydromet to produce weather, environmental and climate information as well as early warning services. The project was also implemented in two phases in 2014–17 and 2018–20.¹⁹³

Various international organisations are active on water issues in Central Asia. One of the most important actors is UNECE, which implements several projects in the region. In particular, a project on Regional Dialogue and Cooperation on Water Resources Management in Central Asia, which began with Phase I in 2009 and continued until the end of Phase III in 2016. The main aim of the project was to empower the countries of the region to find mutually acceptable, long-term solutions to improve cooperation on transboundary water resources.¹⁹⁴ Within regional dialogue, UNECE has also cooperated with other actors, such as IFAS and the German International Cooperation (GIZ).¹⁹⁵ As one outcome of the project, UNECE has published a report on Reconciling resource uses in transboundary basins: assessment of the water–food–energy–ecosystems nexus in the Syr Darya River Basin.¹⁹⁶ Previously, UNECE also supported the Transboundary Water Commission on the Chu and Talas Rivers between Kazakhstan and Kyrgyzstan from 2003 to 2011.¹⁹⁷

The United Nations Development Programme (UNDP) is implementing a regional Climate Change and Resilience in Central Asia project, which also includes a component on climate-resilient water resource management. In particular, the UNDP has organized workshops on climate-resilient water resource management in the Ferghana Valley, bringing together experts and government officials from the countries of the region. The

191 Finland abroad 2020a.

192 Finland abroad 2020b.

193 Finland abroad 2017.

194 UNECE 2022b.; UNECE 2021a.

195 UNECE 2021b.

196 UNECE 2017.

197 UNECE 2022b.

Climate Change and Resilience project will continue from 2020 to 2024, with funding from the European Union.¹⁹⁸

UN Women will initiate a project on Climate, Peace & Gender from the beginning of 2023. The project will increase awareness of climate security issues in the region and promote the inclusion of women in related processes. It will also cover water issues.¹⁹⁹

The Organisation for Security and Cooperation in Europe (OSCE) has a project on climate security in Central Asia, as a part of a wider programme on strengthening responses to security risks from climate change in South-Eastern Europe, Eastern Europe, the South Caucasus, and Central Asia.²⁰⁰ The project has carried out a risk analysis to identify particularly vulnerable climate hot spots, many of which also have links to water. The work will continue by selecting one of the hot spots and bringing in regional actors to work together to find solutions to address the vulnerabilities.²⁰¹ Water is also one thematic area in this project, discussed along with food security and natural resources. In addition, the OSCE has worked on an intergovernmental water basin commission between Kyrgyzstan and Kazakhstan in the Chu-Talas River Basin, where the OSCE offices in Bishkek and Astana have cooperated with state-level and other stakeholders and supporting monitoring visits, water quality tests, conferences and meetings.²⁰²

The Organisation for Economic Co-operation and Development (OECD) has supported water sector reform and National Policy Dialogues in Tajikistan and Kyrgyzstan. The aim has been to support water security through strengthening economic and financial analysis and instruments for Integrated Water Resources Management (IWRM) while also aiding the countries in their progress towards adapting to climate change. In this work, the OECD has cooperated with the Finnish FinWaterWEI project.²⁰³

The Stockholm International Water Institute (SIWI) has a project on Women in water management – Central Asia and Afghanistan, under its Women, Water Management and Conflict Prevention Programme. The project promotes the participation of female water professionals in decision-making in the water sector and supports gender mainstreaming in water governance. Together with the OSCE and CAREC, SIWI has set up a network to support a community of practice for female water

198 UNDP 2022.

199 Background discussion with a representative from UN Women Kyrgyzstan 2022.

200 OSCE 2017a.

201 MFA reports, personal communications with Finnish MFA officials.

202 OSCE 2021.

203 OECD (not dated).

experts. This brings together experts from all Central Asian states and Afghanistan to exchange information and experiences and benefit from joint capacity building.²⁰⁴

The United Nations Regional Center for Preventative Diplomacy for Central Asia (UNRCCA) is mandated to liaise with the governments of the region on preventive diplomacy, providing monitoring and analysis, maintaining contact with regional organizations and facilitate coordination and information exchange.²⁰⁵ It also has a sub-programme concerning natural resources and environment, under which it promotes dialogue among the Central Asian states on transboundary water management. It also cooperates with IFAS on environmental problems in the Aral Sea Basin. In addition, the UNRCCA supports the governments of the region in capacity building for water diplomacy and reforming the regional legal framework on transboundary water resources.²⁰⁶

Several international financing institutions (IFIs) have also been active in water cooperation in Central Asia. The European Bank for Reconstruction and Development (EBRD) is financing the EU's Team Europe Initiative on Water-Energy-Climate Change in Central Asia.²⁰⁷ It has also supported investments in water infrastructure, for example, in Kazakhstan and Kyrgyzstan.²⁰⁸

The World Bank has been highly active in the region, like through its Central Asia Water and Energy Program (CAWEP) which it has been running in partnership with the EU, Switzerland and the United Kingdom since 2009. The aim of the program has been to promote energy and water security at the regional and country level. It has been structured along the three pillars of energy security, energy-water links and water security and has worked through data and diagnostic analyses; institutions, capacity and dialogue; and supporting investments.²⁰⁹

Image 4 presents the actors that are relevant to conflict dynamics in Central Asia, particularly concerning water. The categorizations of potential conflict parties, peace enablers and external actors are not absolute and individual actors can move from one role to another if the dynamics shift. Some of the actors have several roles, such as the countries of the region, which can be either potential conflict parties or peace enablers.

204 SIWI 2022.

205 UNRCCA 2022a.

206 UNRCCA 2022b.

207 European Union (not dated).

208 Usov 2022a; 2022b.

209 World Bank Group 2022.

Roles in a given category may also be weaker than that of the others, as illustrated in the image with a lighter tone.

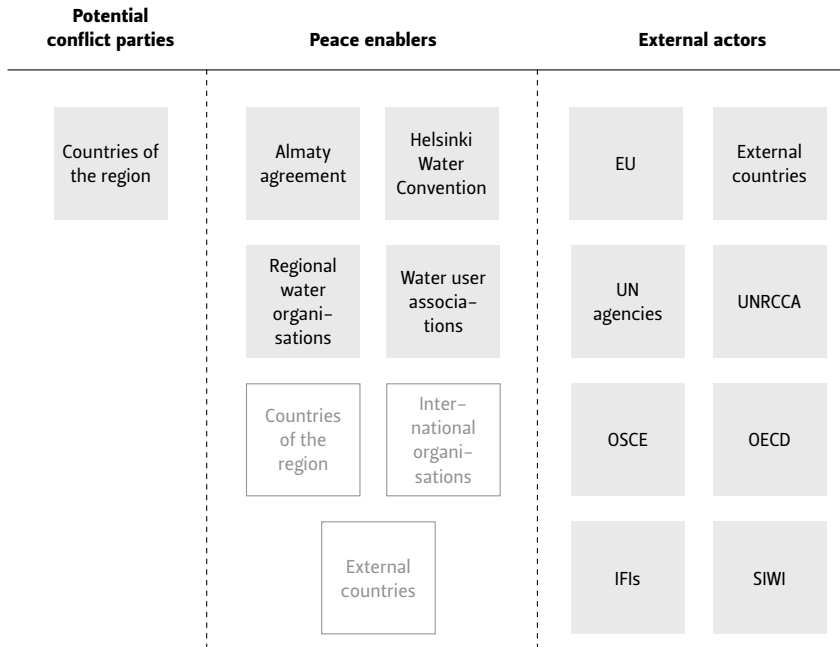


Image 4. Main actors in transboundary water governance in Central Asia
Source: Authors' compilation

3.3. CONFLICT FACTORS

3.3.1. Structural factors and drivers

BORDER ISSUES

A lack of clarity about borders, dating from the early Soviet period when the boundaries of the then Soviet republics were drawn with minimal input from people living in Central Asia, is a source of dispute, especially in some regions. In the Ferghana Valley where borders between Kyrgyzstan, Uzbekistan and Tajikistan are not fully recognized, ethnic division does not follow state lines. As there is also competition for land and water, access to them is often claimed on natural rights, historical precedents and perceived principles of fairness, leading to squatting and

sometimes abuse of power.²¹⁰ The situation sets the ground for disputes. In addition, as internal borders have become international, communities that remain interdependent are forced to comply with their own national laws, regulations and decision-making mechanisms, which in turn makes conflict resolution difficult.²¹¹

Unclear borders create a situation where local residents and cattle may easily end up unknowingly drifting to the wrong side, potentially leading to an incident.²¹² On the other hand, this has also led the militarization of borders in the belief that ramping up controls will stave off accidental incidents and thereby secure the countries from conflict. However, militarization does not necessarily prevent accidental border passings and runs the risk of harmful escalation when they do occur. At the same time, fear and insecurity build up on both sides of the border.²¹³

UNSTABLE OR UNDEMOCRATIC INTERNAL POLITICS

The internal politics of the Central Asian countries plays a role in regional security. Extreme instability and strict authoritarianism may increase conflict potential and other security concerns. For example, in Kyrgyzstan, a weak government has also provided the opportunity for privileged groups to gain wealth and consolidate influence. The system is marked by corruption and nepotism, with groups benefiting from illegal profits supporting the existing regime and those outside challenging it.²¹⁴ As a result, national interests and security become enmeshed with the interests of competing groups, while insecurity increases for the citizens. At the same time, the turbulent political situation has hindered Kyrgyzstan from fully engaging in regional cooperation and the neighbouring countries have tended to mistrust its democratic but unstable governments.²¹⁵

Meanwhile, in the more or less authoritarian conditions of the other Central Asian countries, power has often become personalized to the leader with the personal benefit of the overrunning a broader national interest. This has also hindered relations between the countries when the

210 Expert Working Group on Climate-related Security Risks 2018.

211 Murzakulova and Mestre 2016.

212 McGlinchey and Juraev 2022.

213 Toktomushev 2018.

214 Toktomushev 2017.

215 Kuchins et al. 2015.

leaders have had personal antipathies, such as in the case of the previous presidents of Uzbekistan and Kazakhstan.²¹⁶

When challenged internally, even strong leaders can see an external conflict as an opportunity to create a nationalist wave and divert public attention away from problems at home. Central Asian ruling regimes are inherently insecure, as they rely on some repression of political opinion or competition and tend to be based on high levels of corruption.²¹⁷ While such structures may have become strongly embedded, such as in Turkmenistan, sudden developments may also lead to their rapid downfall. For example, in Kazakhstan, some of the most significant protests have been directed at the undemocratic transition of power from president Nazarbayev to his successor Tokayev, as well as more general demands for political reform.²¹⁸

ORGANIZED CRIME, ILLICIT TRADE AND CORRUPTION

Patterns of corruption, organized crime and smuggling contribute to insecurity and create conditions for incidents of violence. For example, in the border regions of Tajikistan, Kyrgyzstan and Afghanistan, drug trafficking is a major source of income for organized criminals and local warlords with their own militias. Violence easily erupts in such interactions. States are in competition with the warlords as they aim to capture profits from drug trafficking.²¹⁹ Due to the deeply rooted corruption, state authorities may themselves benefit from illicit trade and do not necessarily have a big interest in securing the region or dismantling trafficking routes.²²⁰ This has been one element hindering the resolution of the border disputes and recurring violence between Kyrgyzstan and Tajikistan.²²¹

LACK OF COMMITMENT TO REGIONAL DIALOGUE

As discussed in the previous section, regional consultation and cooperation among the Central Asian states has remained relatively low. While discussions do take place, they tend to lack a more formalized, consistent

²¹⁶ Anceschi 2020.

²¹⁷ McGlinchey and Juraev 2022.

²¹⁸ Kishi et al. 2021.

²¹⁹ McGlinchey and Juraev 2022.

²²⁰ Tashtemkhanova et al. 2015.

²²¹ MFA reports, personal communications with Finnish MFA officials.

structure. This limits the potential for addressing problems in regional or bilateral relations in a proactive, anticipatory manner and complicates resolution when disputes do occur. Formalized structures and channels for dialogue are especially important when a great deal of power is consolidated to the heads of state and their personal antipathies and preferences with regards to the leaders of the neighbouring countries.

However, low enthusiasm for regional dialogue is not necessarily a sign of deeper distrust as such. Instead, it reflects a broader sentiment in the countries since their independence in which sovereignty has been prioritized over close international cooperation or integration. This has, for instance, made the Central Asian states reluctant to accept international agreements which are perceived to restrict their national sovereignty and create new dependencies.²²² At the same time, the Central Asian countries have lacked a strong sense of regional identity, which also makes it less likely for regional cooperation to readily emerge between them.²²³

NATIONALISM

While nationalism is not always implied by the kind of emphasis on national sovereignty described above, it has been an element in the politics of the Central Asian countries. It has been used in different ways in varied political contexts, but has often been associated with rhetoric that may increase animosities between the countries or communities. Authoritarian leaders have tended to utilize a nationalist image as the father of the nation, whereas challengers like Kyrgyzstan's current president Sadyr Japarov use populist and nationalist rhetoric for their appeal.²²⁴

In the Ferghana Valley, nationalism has been one important driver of outbreaks of violence associated with the need to secure national borders.²²⁵ Overall, border disputes have offered an ample platform for rising nationalism and are sometimes deliberately emphasized by politicians for this purpose.²²⁶

222 Spaiser 2018.

223 Krapohl and Vasileva-Dienes 2020

224 McGlinchey and Juraev 2022.

225 Tashtemkhanova et al. 2015.

226 McGlinchey and Juraev 2022.

3.3.2. Water use as conflict factor

DISTRIBUTION OF WATER RESOURCES

While Central Asia as a whole has abundant water resources, their uneven distribution geographically and across national boundaries is one of the main conflict factors in the region. The overarching issue concerns the imbalance between upstream and downstream countries. As Image 5 shows, Kazakhstan, Turkmenistan and Uzbekistan, as the downstream countries, are dependent on water flows from the upstream countries Kyrgyzstan and Tajikistan. At the same time, however, the upstream countries need imports of the fossil-based energy produced in the downstream countries. This mutual dependence causes friction due to the lack of a comprehensive, cross-sectoral agreement on water sharing.

The problems between upstream and downstream countries was inadvertently caused by the independence of the Central Asian states. During Soviet times, water and energy were centrally distributed and the republics did not have an independent water policy. After the collapse of the Soviet Union, the centrally planned system also broke down. Although the Almaty agreement essentially restored the Soviet-era distribution, the independent states were no longer satisfied with it. In particular, the

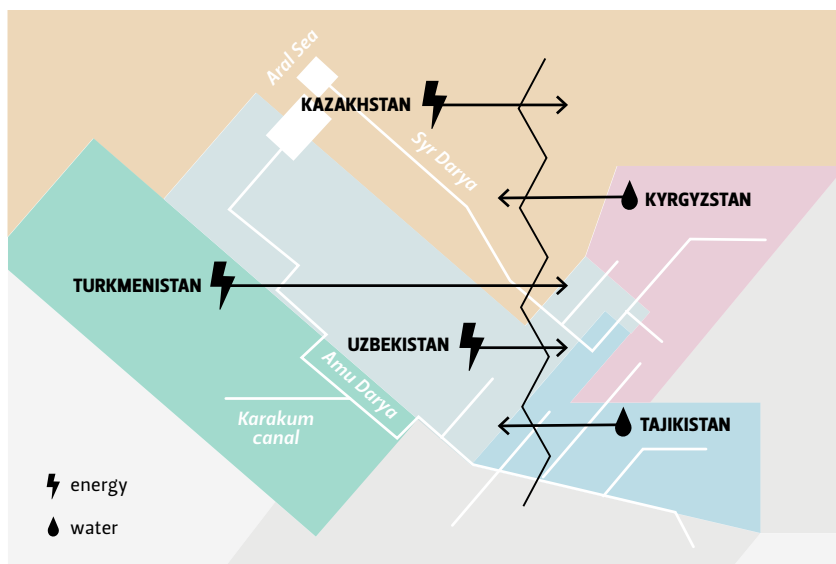


Image 5. Water-energy dynamics between the Central Asian countries
Source: Authors' compilation (water-energy dynamics); World Bank Group (2020), "Central Asia: Towards Water-Secure Sustainable Economies

upstream countries Kyrgyzstan and Tajikistan wanted to expand their hydropower production. However, both countries have remained dependent on hydrocarbon supply from the downstream countries. In effect, both parties have the potential to use water or energy as a weapon by cutting off or reducing supply. The Almaty agreement has not been able to resolve the standoff as it does not account for an economic mechanism to accommodate water use for energy generation and irrigation between the countries. On the other hand, any reform of the Almaty agreement is difficult as the countries are not prepared to give up their recognized shares either.²²⁷

Each Central Asian country has taken measures to ensure or expand their water access unilaterally, which only increases regional tensions. Previously, Uzbekistan has blocked fuel exports to the upstream countries on several occasions, provoking energy shortages, especially in winter.²²⁸ Meanwhile, Tajikistan has continued the construction of the Rogun dam and has announced a programme to construct 14 hydropower plants on the Sanguda and Zeravshan rivers.²²⁹ Kyrgyzstan continues to develop new hydropower and has called for a water charge for its neighbours in order to cover the maintenance of its water infrastructure.²³⁰ Turkmenistan has implemented several large-scale water projects, such as the construction of the Zeyd water reservoir, without consulting neighbouring countries.²³¹ Kazakhstan has moved forward with the construction of dams to support its irrigation and power co-generation, for example the Koksarai dam.²³²

Water allocation is not an immediate cause for aggression for any one of the countries in the region. However, the questions around it maintain a continuous tension that also interferes with other regional relations and the countries' ability to engage in dialogue with one another. It also easily becomes entangled with other critical points in bilateral or regional relations, such as border disputes. Water is also one of the issues that hinders closer regional cooperation.

In order to build confidence between the countries and reduce the potential for any disputes arising from water, the question of its allocation is necessary to resolve. This would require a reconsideration of the Almaty agreement and some of the regional water governance structures to be reformed, particularly the IFAS and IWCW. Despite the necessity of such

227 Zhiltsov et al. 2018c.

228 Church 2018.

229 Zhiltsov et al. 2018b

230 Zhiltsov et al. 2018b; UNECE 2017.

231 Zhiltsov et al. 2018b.

232 UNECE 2017.

measures being acknowledged for years, particularly by the Central Asian states themselves, concrete progress cannot be achieved unless the vicious circle between water, energy and economy is commonly addressed. Moreover, the economies of both the upstream and downstream countries are currently excessively dependent on water. The only way to alleviate such dependency would be to reduce water consumption.²³³

WEAKNESSES IN WATER GOVERNANCE

Despite efforts to implement IWRM, there still are weaknesses and inefficiencies in water governance in the Central Asian countries. These primarily interfere with water access and equality within the countries but, especially in contested border regions, may contribute to tensions between them. Cross-border problems are further exacerbated by the shortcomings of regional water governance.

One problem is a lack of cross-sectoral coordination, which would be sorely needed on water issues as they are so closely linked to energy, agriculture, environment and other issues. Energy and agriculture also tend to dominate administrative structure, while water and environmental actors have less leverage.²³⁴ This is not only harmful from the point of view of sustainability but may lead to an inability to comprehensively consider policy options and their impacts also on regional relations. For example, in Kazakhstan, this also leads to a lack of clarity in power and responsibility allocation, and a clash of conflicting interests within the country's own administrative bodies.²³⁵

The water sector largely still follows a top-down governance structure, where local-level needs are easily under-represented. This partly emanates from Soviet times but has been reinforced by authoritarian and non-democratic governance. For example, in Uzbekistan, WUAs were established as a top-down procedure, organized on the basis of collective territorial farms. This has led them to sometimes compete for the same water resources, causing conflict with one another.²³⁶ WUAs often do not have actual leverage in water governance as decisions and policies are spelled out to them from higher levels of the hierarchy. Crucial water

²³³ Spaiser 2018.

²³⁴ UNECE 2017.

²³⁵ Zhupankhan et al. 2018.

²³⁶ Moss & Dobner 2016.

users, especially farmers, tend to be excluded from WUAs, resulting in an incomplete picture on water needs in local-level decision-making.²³⁷

At the regional level, coordination is hindered by obstacles to cooperation in general and the shortcomings in the institutional architecture related to water governance in particular. Although the Almaty agreement sets the basis for water allocation and regional bodies like IFAS provide a platform for dialogue, these structures are not effective or powerful enough to ensure the resolution of disputes in a consistent, mutually recognized way. There is no unbiased party to act as an arbitrator with real power to influence the decisions of the disputing parties²³⁸ Combined with the weakness of the transboundary institutions and inability to fully enforce bi- and multilateral agreements, the resulting regulatory vacuum enables the countries to take unilateral decisions to exploit water.²³⁹ This further feeds a sense of distrust between the countries. The lack of a credible legal framework therefore harms regional relations and increases the risk of conflicts.²⁴⁰

Effective regional water governance would require the countries to accept a transfer of sovereign power to supranational organizations.²⁴¹ In addition, governance between the water and energy sectors at the regional and national levels would need to be comprehensively considered.²⁴² In the present situation, however, such reforms seem difficult to achieve and would require a considerable amount of confidence-building between the countries.

EXCESSIVE USE OF WATER

Although water resources in Central Asia are not at urgent risk of being depleted, more controlled consumption could also help address some of the problems of water allocation. Especially in areas where a large amount of water-intensive economic production uses the same source, such as along parts of the Syr-Darya river, the countries have aimed to secure their own water access rather than prioritizing the efficient use of water.²⁴³

237 Kreutzmann 2016.

238 Zhiltsov et al. 2020.

239 Peña-Ramos, J. A., Bagus & Fursova 2021.

240 Zhiltsov et al. 2018b.

241 Spaiser 2018.

242 Zhiltsov et al. 2020.

243 Zhiltsov et al. 2018b.

All the Central Asian countries rely on water-intense economic production. However, due to poor infrastructure and institutional arrangements, water losses have also been high. In agriculture, irrigation efficiency is low and 50–80% of the water withdrawn for agricultural purposes is lost due to evaporation and infiltration. As a result, the countries constantly consume and compete for more water than would actually be required. In the lower sections of the river catchments, this results in drastic water deficits and water quality problems, with severe impacts both on local water users and ecosystems.²⁴⁴

On the Kyrgyz–Tajik border, the tense relations between the countries both contribute to, and are exacerbated by, excessive water use. As the water infrastructure in the region is transboundary, there is no specific institution responsible for its rehabilitation and maintenance. Neither Kyrgyzstan nor Tajikistan is willing to invest in water systems beyond their own borders. Due to disrepair, water channels are silted up or damaged, while water pumps are broken or not working at full capacity, all of which leads to further water losses. As a result, downstream water users are often deprived of water while upstream users end up overusing it. The downstream users seek to correct the arrangement through negotiations, protests, obstructions and sabotage, which in turn increases insecurity and escalates tensions.²⁴⁵

SIGNIFICANCE OF WATER TO THE REGION

As has been noted above in this analysis, water is a critical and strategic resource to the Central Asian countries. Its role is perhaps best attested to by the way it has been acknowledged in the national legislation of each country as state property.²⁴⁶ The clear recognition of the importance of water can be seen as a positive aspect, as will be discussed in more detail shortly. However, it can also add to the conflict potential whenever the water-related interests of the countries clash.

During their independence, the Central Asian states have gone through several disputes, clashes or internal conflicts. It has been argued that water plays some role – either as a trigger, casualty or weapon – in the majority of them.²⁴⁷ Indeed, water plays such an important overarching role in the economy and politics of the countries that it is difficult to

²⁴⁴ Groll et al. 2015..

²⁴⁵ Toktomushev 2018.

²⁴⁶ Zhiltsov et al. 2018b.

²⁴⁷ Peña-Ramos et al. 2021.

separate its use from other aspects of society, including ones that might turn out to be conflict triggers.

Water has become a question of national pride and national autonomy in Central Asia. This is particularly the case in Tajikistan and Uzbekistan, as has also been visible in their bilateral relations. Water has become a part of nationalist rhetoric, making it harder for the countries to accept compromises related to it or change their approaches to water policy. This further complicates efforts to address water disputes or reform regional water governance arrangements.²⁴⁸

3.3.3. Peace and resilience sources

Water resources and their governance also provide resources for peace in Central Asia. In many cases, the same circumstances that have conflict potential may also be used to strengthen peace and stability.

TRANSBOUNDARY WATER AGREEMENTS AND INSTITUTIONS

The Almaty agreement, regional organisations like the IFAS and ICWC, and the various river basin organisations clearly demonstrate that the Central Asian states are willing and able to cooperate bilaterally and regionally. The fact that transboundary mechanisms exist, and the countries participate in them, is a precondition to the kind of regional dialogue necessary to ensure stability in the long term.

As has been described in previous sections, the present agreements, and the institutional framework overall, are not able to adequately address all aspects of transboundary water governance. A broader reform would be in order but is difficult to achieve. However, it has been argued that a more pragmatic, sub-regional approach to cooperation could help to overcome the current impasse. Forward-looking, cross-sectoral solutions may be easier to achieve in sub-regional, bi- or multilateral agreements and organisations, providing a slightly less complex platform for building trust and good practices. Such results could, in turn, create a more positive outlook on regional-level cooperation.²⁴⁹

²⁴⁸ Spaiser 2018; Zhiltsov 2020.

²⁴⁹ Pohl et al. 2017.

IMPORTANCE OF WATER AS A SHARED RESOURCE

As discussed in the previous section, the critical importance of water makes it a potential trigger for disputes but also generates incentives for cooperation. As the existence of transboundary water institutions demonstrates, for example, all the Central Asian countries recognize their interdependency on water access and the fact that it serves the interest of each country. According to some assessments, historical evidence suggests water rather generates cooperation than conflict between the countries in the region.²⁵⁰

As it is a necessity for the countries to secure water access, they could end up deciding that cooperation is less costly than antagonistic means. In economic terms alone, the lack of cooperation has been calculated to be costing the countries, for example, through agricultural losses and inefficient electricity markets.²⁵¹ Although this has not been enough to convince the countries of more efficient cooperation so far, negative developments like increasing disputes or more frequent impacts of climate change on water access could increase cooperation incentives.²⁵²

Water efficiency and saving is another area where the value of the resource is already being recognized, and where the countries could take mutually beneficial actions. Unilateral action on water efficiency can also be economically sound while serving a broader regional interest. For example, Uzbekistan, as the largest consumer of water in the region, has managed to decrease its water consumption through a shift towards less water-intensive crops and the construction of reservoirs to prepare for irrigation shortfalls. While primarily easing the situation in Uzbekistan, it also reduces water pressure at the regional level.²⁵³ Such actions could also be increasingly jointly sought by the countries.

The tendency to associate water with national pride in Central Asia, as discussed above, may be used for nationalist purposes but could also be a way for the countries to raise their profile in international fora. For instance, Tajikistan has shown an increasing interest in water diplomacy through the Dushanbe Water Process, organizing international high-level conferences from 2018.²⁵⁴ So far, the process has mainly targeted an international audience at the expense of its regional engagement.²⁵⁵ In

²⁵⁰ Spaiser 2018.

²⁵¹ Pohl et al. 2017.

²⁵² Zhiltsov et al. 2020.

²⁵³ Pohl et al. 2017.

²⁵⁴ UN Water 2022.

²⁵⁵ MFA reports, personal communications with Finnish MFA officials.

the longer run, it could also oblige Tajikistan to rethink its regional water policy.

AGENCY OF THE CENTRAL ASIAN COUNTRIES AND THEIR POPULATIONS

Ultimately, it is the Central Asian countries' own actions that will determine whether regional water governance will be based on conflict or cooperation. Although the agency of the countries often ends up being downplayed in international assessments, they have previously demonstrated a strong ability to bargain and engage with external powers.²⁵⁶ In this sense, several recent developments show the potential for strengthening stability in the region.

In particular, Uzbekistan has considerably changed its policy towards openness and willingness to engage in international and regional contexts since the transition of power from Karimov to Mirziyoyev in 2016. The country has sought to reboot regional cooperation, although it has tended to emphasize strengthening bilateral relations rather than promoting regional projects.²⁵⁷ However, the consultative meetings of the presidents of the Central Asian countries suggest that a broader regional perspective is not excluded. In this context, president Mirziyoyev has proposed a possible solution to the shortfalls of the Almaty agreement by devising mutually beneficial solutions with sufficiently precise and robust institutions and scientific expertise informing them.²⁵⁸

Kazakhstan has been known to promote closer regional ties in diplomacy, trade, culture, science and security through its multi-vector foreign policy.²⁵⁹ Recently, Kazakhstan has made a proposition for the establishment of a water-energy consortium between all the Central Asian countries. The initiative was not fully endorsed by the other countries but informal discussion within a water and energy mechanism is currently ongoing.²⁶⁰

Moreover, other Central Asian countries have also shown a specific agency on the issue of water in the recent years. As described above, Tajikistan promotes the Dushanbe Water Process. Meanwhile, Turkmenistan has shown an interest in promoting water diplomacy in international fora, for example, through the president's initiative to develop a UN water

256 Spaiser 2018.

257 Anchesci 2020; MFA reports, personal communications with Finnish MFA officials.

258 Zhiltsov et al. 2018a.

259 BTI Transformation Index 2022e; Kazakhstan Country Report 2022.

260 Background discussion with a representative of GIZ 2022.

strategy.²⁶¹ The potential of water diplomacy is clearly also recognized at the higher levels of regional politics. New modes or platforms of cooperation are possible if such efforts could increasingly be discussed among the countries, for example, at the presidential consultative meetings.

In addition to the level of political decision-making, sources of resilience can also be found at the population level. Despite authoritarian governance, civil activism has been able to exist, mobilize and sometimes achieve some of its goals.²⁶² For example, in the autonomous Karakalpakstan region of Uzbekistan, in 2022, protests against an amendment of the constitution that would potentially have weakened the regional autonomy eventually forced president Mirziyoyev to reverse the decisions concerning the region.²⁶³ During the COVID-19 pandemic, people especially in Kyrgyzstan, Kazakhstan and Tajikistan were able to self-organize when the state failed to provide essential services. For example, in Kyrgyzstan, the official COVID-19 response was harshly criticized but volunteers mobilized to help others by responding to emergency calls and finding portable ventilators for those in need. Many also donated money and helped to control the spread of the disease in rural areas.²⁶⁴ Although repressive governance restricts the capacity of civil society, the willingness to contribute to common causes suggests a platform for promoting common causes exists.

MUTUAL INTEREST IN ADAPTING TO THE IMPACTS OF CLIMATE CHANGE

Climate change is expected to influence the Central Asian countries in several ways. The specific consequences of water use and governance will be discussed in more detail in the following section. However, it is important to note that cooperation is essential for effective climate mitigation and adaptation in the Central Asian countries. At the same time, it provides another incentive for mutually beneficial cooperation.

The impacts of climate change will traverse national boundaries and many of the consequences will be shared by two or more of the Central Asian countries. Some consequences may be impossible to fully prevent or prepare for without cross-border efforts. In order to build preparedness, the countries will need to work together to develop, among other things,

261 MFA reports, personal communications with Finnish MFA officials.

262 Kudaibergenova and Laruelle 2022.

263 Solod 2022.

264 Marat 2020.

openly accessible independent data, monitoring and management of climate-related security risks, cost-benefit analyses of cooperative frameworks for early warning and disaster relief, technical assistance to develop feasibility assessments for low carbon infrastructure and accompanying social transition policy, as well as regional dialogue on climate change.²⁶⁵

Strengthening regional efforts on climate change has already been a target. So far, these have primarily been led by international actors such as the OSCE's programme on Climate Security in Central Asia.²⁶⁶ However, Turkmenistan has also put forward an initiative to establish, under the UN auspices, a Regional Centre for technologies related to climate change.²⁶⁷ Such efforts tend to include specific components on water, or otherwise have relevance to water cooperation. As the themes of water and climate change are so closely connected, regional climate cooperation can also work as a platform to advance transboundary water cooperation.

INTERNATIONAL COOPERATION

International actors have had an important role in water cooperation in Central Asia, both as donors and partners in technical assistance. They have also helped to support regional dialogue and transboundary water governance institutions. The main actors in this field, including both international organisations and partner countries, are discussed above in the 'Actors' section. While external actors cannot merely impose their objectives from the outside, their role and potential to support the Central Asian countries in strengthening regional water governance should also not be overlooked.

Modes of cooperation where external actors merely aim to impose their objectives on the countries of the region are not likely to be successful. This is particularly the case in Central Asia as the countries tend to be suspicious about external involvement and sometimes consider that it has only increased tensions within the region.²⁶⁸ In some cases, such as the disputes between Kyrgyzstan and Tajikistan, water issues are seen as particularly sensitive and kept away from external involvement, even if the aim is to support the resolution of conflicts.²⁶⁹

265 Expert Working Group on Climate-related Security Risks 2018.

266 OSCE 2017a.

267 Zonn et al. 2018.

268 Spaier 2018.

269 Background discussion with a representative from OSCE Kyrgyzstan 2022; MFA reports, personal communications with Finnish MFA officials.

However, international actors are important partners to the Central Asian countries and the regional organisations working on water governance. They can, among other things, support the states and institutions of the region in efforts to grasp the sources of resilience and stability proposed above.

3.4. DYNAMICS

3.4.1. Local, national and regional conflict dynamics

CLIMATE CHANGE

In Central Asia, where water already is a major strategic issue, climate change can be expected to have a considerable impact on conflict dynamics. According to projections, the average annual temperature in Central Asia will rise by 2.0 to 5.7 degrees Celsius by 2085. Summer temperatures will rise, especially in the south, while summer and autumn conditions are expected to become drier in most parts of the region.²⁷⁰ Climate change will also increase meltwater from glaciers, thereby disrupting the balance of a crucial source of freshwater in the region.²⁷¹

The specific impacts of climate change will vary within the region and in different parts of the countries. However, growing water deficit and a deterioration of water quality are likely outcomes throughout the region. This poses a threat to irrigated farming and could result in reduced yields of agricultural crops. Access to drinking water may also be decreased, with potential health impacts. In addition, some parts of Central Asia will likely experience increasing emergency situations due to flooding and landslides.²⁷²

Glaciers melting is a particularly important issue for Central Asia as it plays such a significant role in the water flows in the region. Glacier retreat in the Tibetan Plateau particularly impacts the Amu Darya basin, but there are different and sometimes conflicting estimates of the speed with which the change will occur. In the short run, the melting glacier will increase water flow to the rivers, but in the longer run, it will significantly reduce water availability. According to one study, runoff would increase by 11.2%

²⁷⁰ Expert Working Group on Climate-related Security Risks 2018; OSCE 2017a.

²⁷¹ Expert Working Group on Climate-related Security Risks 2018.

²⁷² Zhiltsov et al. 2020.

in 2021–2060 and reduce by 5.0% in 2061–2100.²⁷³ Another study found that water supply capacity for the Amu Darya would decline by 2060.²⁷⁴ The trend is relatively clear, but adaptation measures depend on the timeline the developments take place to some extent. Further research and prognoses will therefore be necessary.

According to an assessment of climate-related security risks in Central Asia,²⁷⁵ climate change will increase insecurity and instability in the region through several dynamics that often are also related to water. First, climate change may increase water stress and therefore tensions between downstream and upstream countries. Second, border conflicts could be exacerbated as access to natural resources is limited. Third, climate-insensitive development, such as unilateral efforts by the countries to secure their own water access, could erode regional cooperation capacity. Fourth, inadequate efforts to mitigate climate change and promote energy transition may lead to societal insecurity.

Climate change might have implications on the downstream-upstream country balance. For instance, some forecasts suggest that by 2025, glaciers in Kyrgyzstan will shrink by 30–40%, which will result in a 25–35% decrease in water availability, significantly weakening Kyrgyzstan's position.²⁷⁶ In the absence of a functional, enforceable system for water allocation and energy production, there is a risk that water may increasingly become weaponized and trigger a cycle of retaliatory responses between the countries.²⁷⁷

In the contested Fergana Valley, climate change will increase the uncertainty of water supply, leaving lands unproductive and destabilizing the breeding of livestock. This will have harmful implications on agriculture and other livelihoods. Due to the lack of mutual trust and a functional regime for sharing resources, this development may aggravate historical disputes and prejudices. For instance, land grabs may become more common, especially in conditions where corruption and unclear land ownership prevail.²⁷⁸

However, not all water governance and sharing issues can be explained by climate change, even in the near future. Instead, infrastructure and governance will remain crucial determinants of water access. Competition and disputes over the water resources of the Isfara river between

273 Xu et al. 2021.

274 Li et al. 2022.

275 Expert Working Group on Climate-related Security Risks 2018.

276 Zhiltsov et al. 2018b.

277 Expert Working Group on Climate-related Security Risks 2018.

278 Expert Working Group on Climate-related Security Risks 2018.

Kyrgyzstan and Tajikistan have been increasing even though recent studies suggest there has, so far, been no overall decline in the runoff of the Isfara. The melting of glaciers is also not projected to start reducing river flow until after 2050. Water access problems are primarily caused by inefficient and deteriorated infrastructure, as well as the existing border dispute which further hinders the countries from agreeing on a more coherent regime of water use.²⁷⁹ This shows the importance of fully identifying the causes behind water sharing issues, whether related to climate change or not, and recognizing the governance and infrastructure solutions that could at least alleviate the situation.

MIGRATION

Migration from the Central Asian countries, especially to Russia, has been projected to continue. Unlike many of the European parts of the former Soviet Union, Central Asia has experienced population growth over the last three decades. As the employment situation is weak, especially in the lower income countries, Russia has provided a ‘safety valve’ for the population to find work. This has made Kyrgyzstan and Tajikistan particularly dependent on remittances sent home by migrants.²⁸⁰ The situation could change with the present geopolitical situation if the working migrants suffer economically and start returning to their home countries, where they are not all likely to find jobs easily. This, however, has not been the case so far.²⁸¹

If migration for work continues around the levels it has until now, it will continue to have implications for the Central Asian countries, especially in the countryside. Traditional rural livelihoods have increasingly become dominated by women as the men are more likely to migrate. This may have consequences on rural and agricultural dynamics in the long run. On the other hand, in some families, both parents have migrated, leaving behind ‘social orphans’ cared for by their extended families. Overall, the growing tendency to leave behind rural communities has been feared to reduce opportunities there, lowering resilience and, in some areas, increasing crime or extremism.²⁸² Opportunity for malign socialization, including into criminal and extremist communities, generally lowers the resilience of communities.

²⁷⁹ Arynova and Schmeier 2021.

²⁸⁰ Helf 2020.

²⁸¹ Heusala and Eraliev 2022.

²⁸² Helf 2020.

There is also migration from rural to urban areas.²⁸³ As this also potentially erodes the resilience of rural communities, it risks contributing to the inequality between urban and rural population.²⁸⁴ For example, in Kyrgyzstan, there has traditionally been a polarization between urban and rural population.²⁸⁵ The exacerbation of such developments could harmfully affect the internal cohesion of the countries of the region.

CHANGING GEOPOLITICAL SITUATION

Central Asia continues to be a key sphere of influence for Russia and an important part of Moscow's "Near Abroad".²⁸⁶ The main strategic interests for Russia have been to: ensure Russian oversight of the region, maintain its strategic interests through a strong military presence in Tajikistan and Kyrgyzstan and strengthened military ties with Kazakhstan, and the promotion of Russia's global interests in the region.²⁸⁷ However, Russia's attack on Ukraine in 2022 and continued war of aggression are likely to have implications on its presence in the region. Overall, the war also increases instability and unpredictability in Central Asia. In particular, Russia has been a regional security provider, but a major weakening or internal turmoil could thoroughly shift Russian interests elsewhere. Some hints of this can be observed, for example, in the diminishing role of Russia in securing Tajikistan–Afghanistan border.²⁸⁸ However, at present, the full ramifications of Russia's actions are too early to analyse.

Meanwhile, Chinese efforts to increase its influence in Central Asia are likely to be strengthened. In particular, its demand for resources and energy from the region is growing. Central Asian countries are in a weak position with regards to their diplomatic relations to China as they have low amounts of leverage and resources in comparison. Chinese interest has traditionally been stated to ensure security in Central Asia through the maintenance of peace, predictability, and secular governments. Its main aim has been to prevent instability in the region in order to secure its own interests, such as energy imports, trade routes and the stability of the Xinjiang region where the status of the Uyghur minority is being restricted. China would, for instance, prefer the water disputes between

283 Zhupankhan et al. 2018a.

284 Rahman and Varis 2008.

285 MFA reports, personal communications with Finnish MFA officials.

286 Scobell et al. 2014.

287 Laruelle 2022.

288 MFA reports, personal communications with Finnish MFA officials.

Tajikistan and Kyrgyzstan to be resolved, however, it has not assumed an active role in trying to mediate between the two countries. Overall, China has not been eager to take on the role of the major security provider in Central Asia, and has been careful to not take actions that would create friction with Russia.²⁸⁹ Any possible weakening of Russia's position in the region might provide an opportunity for China to strengthen its own influence. However, at least so far, China seems to be aiming to maintain the status quo rather than attempting to challenge Russia's role.

The Central Asian governments have tended to see Moscow as a more reliable partner and less of a threat to their sovereignty than Beijing and have looked to Russia to provide balance against the prospect of Chinese domination in economy, diplomacy and defence.²⁹⁰ Their position is not likely to change overnight. However, the emerging situation might make the balancing act between the two powers more complicated, or provide them with more opportunities to play Russian and Chinese interests to their own advantage.

Meanwhile, a broader deterioration of the security situation around Central Asia is possible, especially due to the Taliban's rise to power in Afghanistan. This has already accelerated human trafficking and other illicit activities in the border region between Tajikistan and Afghanistan. Terrorist activity has also affected Tajikistan, and there have been rocket attacks on both Tajik and Uzbek borders.²⁹¹ The withdrawal of the United States from Afghanistan and its weaker regional presence may also have implications on the security situation, particularly in the border region but more widely in Central Asia as well.²⁹²

RISING NATIONALISM

The new national identities of the Central Asian countries have sometimes slipped towards nationalism. Especially when challenged, the heads of state have resorted to nationalist rhetoric in order to justify their power.²⁹³ Such tendencies may, either intentionally or by consequence, feed antagonistic sentiments and politics between the countries or different groups within them, with destabilising implications for regional dynamics.

289 Scobell et al. 2018.

290 Ibid.

291 Ibragimova 2022; MFA reports, personal communications with Finnish MFA officials.

292 Starr 2022.

293 McGlinchey and Juraev 2022.

For example, in Kyrgyzstan, democratic politics have sometimes given rise to narratives that appeal to and elevate the majority ethnic Kyrgyz population at the expense of minorities, particularly Uzbeks.²⁹⁴ Kazakhstan has increasingly asserted the primacy of the Kazakh language and ethnic Kazakhs, most often at the expense of the non-Kazakh population.²⁹⁵ Meanwhile, in Uzbekistan in 2022, amendments to the constitution proposed by president Mirziyoyev in an effort to consolidate power and create a ‘New Uzbekistan’ led to protests in the autonomous region of Karakalpakstan, where the constitutional changes were considered to weaken their autonomy and, by extension, the rights of the local Karakalpaks minority. Although the changes that would have affected Karakalpakstan were withdrawn, their inclusion among the amendments suggests a failure to consider minority rights.²⁹⁶

In many cases, nationalist and xenophobic unrest has been combined with economic grievances in ways that could feed protests, potentially turning against governments.²⁹⁷ At the same time, increasing nationalist tendencies may further contribute to the inability of the Central Asian regimes to secure the rights of minority groups, thereby aggravating inequality and dissatisfaction. For example, in Karalpakstan, the population faces the highest poverty rate in the country and about 20% are reliant on remittances from abroad. This inequality extends to water access, with only 60% of households connected to drinking water, and health and gender, as the region has the highest maternal mortality rate in Uzbekistan.²⁹⁸ Such conditions run the risk of deepening divisions within the countries.

AUTHORITARIAN AND DEMOCRATIC DYNAMICS

Most of the Central Asian countries have relied on some degree of authoritarian rule and this is not likely to change in the near future. While the transition of power to a new head of state has, for example in Uzbekistan, been associated with some new openness, especially in terms of foreign policy, the administrative culture in both countries continues to have a strongly authoritarian undertone.²⁹⁹ On one hand, this suggests a sense of stability in regional politics. On the other, the role of an individual

294 Helf 2020.

295 Helf 2020.

296 Solod 2022.

297 Helf 2020.

298 Solod 2022.

299 Anceschi 2020; BTI 2022b.

head of state in deciding foreign policy will remain strong, which leaves a sense of unpredictability as policies might change based on their personal inclinations. Poor personal relations between leaders might also block cooperation even in cases where it would otherwise be feasible.

RISE OF RELIGIOUS EXTREMISM

The Central Asian states have had secular systems ever since their independence. However, a revival of Islamic practice and culture has been a marked trend over the past three decades. The governments have sometimes responded to such developments in a prohibitive manner, such as banning the hijab.³⁰⁰ Polarization between religion and atheism has also risen. For example, in Kyrgyzstan, the constitution of 2021 emphasized the description of the country as a secular state, while religious groups have called for a recognition of their rights.³⁰¹

One security issue has been caused by the fact that citizens from Central Asian states have joined terrorist group ISIS in Iraq and Syria. This recruitment can also be seen as one indication of inequality and marginalization within the Central Asian countries. For example, in Kyrgyzstan, a lot of those who left for Iraq and Syria came from the Uzbek minority in the southern parts of the country. The states have since been proactive in repatriating their citizens imprisoned in the Middle East as ISIS fighters. Tajikistan, for instance, has allowed the return of foreign fighters and has pardoned those who repent.³⁰² The people themselves have, however, remained stigmatized and unable to access social benefits.³⁰³

The volatile situation in Afghanistan also creates new uncertainties. The Taliban consolidating power in 2021 has enabled a proliferation of extremist groups in the border regions of Northern Afghanistan. In addition to increasing security risks, this may facilitate the spread of radical ideologies in neighbouring countries. Especially in Kyrgyzstan, Tajikistan and Uzbekistan, young adults questioning the corruption of their governments and the lack of economic opportunities can find inspiration in the rise of the Taliban.³⁰⁴ This is further reinforced by the Taliban's strong social media presence. The Central Asian countries have thus implemented actions to deter extremism, including educational and awareness measures.

³⁰⁰ Helf 2020.

³⁰¹ MFA reports, personal communications with Finnish MFA officials.

³⁰² Helf 2020.

³⁰³ Farrell et al. 2021.

³⁰⁴ Mallinson 2021.

However, rising extremist activity may also lead to reverting repressive policies against religion.³⁰⁵

The countries have also not been coherent in their diplomatic engagement with Afghanistan since the Taliban regained power. Tajikistan has strongly reacted to the risks and refrained from relations with the new government. Meanwhile, Kyrgyzstan, Turkmenistan and Uzbekistan have tended to prioritize their own economic interests in Afghanistan and have therefore maintained relations with the Taliban. In doing so, they have relied on the Taliban to keep its promise to contain Islamist militancy within its own borders.³⁰⁶

3.4.2. Water dynamics

REDUCED AVAILABILITY OF WATER

As discussed above, climate change is a major factor affecting the availability of water in the near and further future in Central Asia. The glaciers supplying water to the region are currently melting rapidly. It is projected that around the mid-21st century, the glaciers will have fully retreated, massively reducing river flow. In other words, the availability of water will be significantly lower in the future. As economic production and social development strongly rely on the water supply available currently, and indeed problems between countries due to water access occur even now, considerable efforts need to be taken for the countries to prepare for future conditions.³⁰⁷

At the same time, deteriorating water infrastructure may further reduce access to water. As described in previous sections, critical water infrastructure is often old and inefficient and, in some cases, has fallen into disrepair. As a result, the amount of water made available for consumption is far less than its full potential. The problem is likely to worsen as resources for the maintenance of the equipment are inadequate. In some cases, such as the transboundary river resources between Kyrgyzstan and Tajikistan in the Ferghana Valley, no actor wants the responsibility and costs of upgrading the infrastructure.³⁰⁸ The eroding infrastructure may therefore further limit water access while also potentially causing disputes between countries over the costs of maintenance.

305 Schmitz 2022.

306 Ibid.

307 Helf 2020.

308 Toktomushev 2018.

The extent to which water availability will be reduced, as well as the subsequent consequences, varies across the Central Asian region. For instance, for Turkmenistan, which already has a highly vulnerable water supply, diminishing river flow would affect the most important industries of the country, including irrigation agriculture and public healthcare.³⁰⁹ In Uzbekistan, a decline in water availability would severely hit cotton farming and the vitally important fossil energy production.³¹⁰ The delicate balance between upstream and downstream countries is very likely to be severely exacerbated, with both parties harmed by the situation.

INCREASING WATER CONSUMPTION

While water availability is likely to decline, water consumption in Central Asia appears to be increasing as economic development needs drive the countries to expand their water use. The cross-sectoral pressures associated with this will be discussed in more detail in the following section. However, as regional consultation about water allocation is riddled with disputes, an overarching and mutually recognized level of acceptable water use is missing on a regional level.

The situation is further aggravated by the involvement and plans of neighbouring countries that share transboundary water resources with Central Asia. China appears to be competing for upstream water with Kazakhstan as it diverts water from two transborder rivers, Ili and Irtysh, in order to increase agricultural production in the Xinjiang region.³¹¹ Its plan is to increase cotton and grain crops in Xinjiang, considerably depleting water resources in the northern regions of Kazakhstan. Chinese projects on the Ili could reduce the flow of the river in Kazakhstan by 40% by 2050. This would also cause pollution that would affect water on Kazakhstani side, and reduce the depth of Lake Balkhash, which gets about half of its water from Ili.³¹²

Russian water projects are less problematic for the Central Asian countries in terms of their direct impact. However, Russia is an active investor and supporter of the upstream countries of Kyrgyzstan and Tajikistan and has contributed to the exacerbation of tensions between the upstream and downstream countries. Russia has, for instance, been involved with financing controversial plans for the construction of two dams in

309 Zonn et al. 2018.

310 Zonn et al. 2018.

311 Spaiser 2018.

312 Zhiltsov et al. 2018a.

Kambarata in Kyrgyzstan and has offered partial funding for the Rogun dam in Tajikistan.³¹³ These plans have long been opposed by downstream countries, particularly Uzbekistan, which would suffer considerably lower water availability as a result.

3.4.3. Water-related cross sectoral dynamics

ENERGY TRANSITION

The mitigation of climate change and, as part of it, the transition of the energy sector from fossil-based to sustainable production is an increasingly pressing task in Central Asia. All the countries in the region are signatories of the Paris Agreement and have submitted their Nationally Determined Contribution (NDCs). Technically, the region has a relatively high potential for developing sustainable energy. However, the countries face the challenge from very different starting points and available opportunities.³¹⁴ For Kazakhstan, as a major fossil fuel producer, present emissions are far higher and more difficult to cut than for Tajikistan which, in 2016, relied on hydropower for almost 48% of its total primary energy supply³¹⁵

From the view of water use, it is particularly relevant to know the extent to which of the countries' sustainable energy plans are based on hydropower. Kyrgyzstan and Tajikistan appear to rely on hydropower, holding on to their existing sources while also constructing new hydropower plants. In Kyrgyzstan, this has meant the construction of the Kambarata-1 and Kambarata-2 stations, due to be finalized in 2022.³¹⁶ Tajikistan has included the Roghun dam into its National Development Strategy until 2030.³¹⁷ Meanwhile, neither country is planning significant investments in other kinds of renewable energy. On the other hand, fossil-rich Kazakhstan and Uzbekistan are both developing renewable energy at a relatively rapid rate. As neither has major hydropower capacity, they are turning to solar and wind power.³¹⁸ Turkmenistan is an exception in

313 Spaiser 2018.

314 Wishart and Abidi 2021.

315 Shadrina 2020.

316 UNECE 2017.

317 Shadrina 2020.

318 Wishart and Abidi 2021.

the sense that it has little hydropower but has also not been accelerating other kinds of renewable energy development.³¹⁹

Despite some promising signs, non-hydro renewable energy remains a relatively small part of the total energy mix over all the Central Asian countries. Hydropower will continue to play a significant role, especially for Kyrgyzstan and Tajikistan, but also for balancing power for wind and solar energy. Water availability may be affected by other energy production as well. None of the countries are planning large-scale investments in biofuels³²⁰ however, which could have a major impact on both water and agriculture dynamics.

A slow energy transition can also be a risk for the Central Asian countries. As the assessment by the Expert Working Group on Climate-related Security Risks has noted, social stability can be disrupted not only by the impacts of climate change itself but also by the consequences of an ineffective transition. Rising energy prices and increasing protests, for instance, would result in significant cross-sectoral impacts.³²¹ Fuel prices were already a major factor in the protests of January 2021 in Kazakhstan, for example.³²²

As the energy transition will have implications on water use, it will further increase the need for regional dialogue and consultation in Central Asia. Moreover, there could be economic and political benefits if the countries cooperated with one another in developing renewable energy solutions. As previous assessments have shown, there is a cost associated with inaction on water cooperation.³²³

CHANGES IN AGRICULTURAL PRACTICES

Irrigated agriculture is one of the largest areas of water consumption in Central Asia. Water withdrawal for irrigation has had considerable environmental and economic impacts, such as a major reduction in the amount of water reaching the Aral Sea.³²⁴ With decreasing water availability, irrigation is becoming increasingly unsustainable. Previously, the countries of the region have not had adequate measures and infrastructure in place to improve the efficiency of irrigation. In the recent years,

319 Shadrina 2020.

320 UNECE 2017; Shadrina 2020.

321 Expert Working Group on Climate-related Security Risks 2018.

322 Kudaibergenova and Laruelle 2022.

323 Pohl et al. 2017.

324 UNECE 2017.

however, Kazakhstan and Uzbekistan have taken action to increase the water efficiency of irrigation.³²⁵

Kazakhstan has set water efficiency targets and plans and is implementing drip irrigation and other water saving technologies with a target of having them on 15% of cultivated land by 2030. 20-30% of land used for rice and cotton cultivation will be gradually replanted with less water intensive crops. Uzbekistan is restructuring the agricultural sector by changing crop patterns while investing in irrigation and water-saving technologies. It also aims to improve the efficiency of agricultural water management. Water-saving measures also reduce the need for energy, as the pumping or irrigation water is energy-intensive.³²⁶

At the same time, however, Uzbekistan and Kazakhstan are developing their food production with an eye on exports. Investments in animal husbandry and tree plantations are high, among other things, and the trend is expected to continue. Along with rising investment needs on food processing and transportation, the water savings from irrigation might, at least in part, be used up in this development.³²⁷

The development of the agricultural sector therefore presents the potential for both reductions and increases in water use. This again underlines the need for the countries to plan their actions in a comprehensive way, using both the nexus approach and consultations on transboundary water use. One clear incentive for this could be the potential economic benefits available from cooperation.³²⁸

325 *ibid.*

326 *ibid.*

327 *ibid.*

328 Pohl et al. 2017.

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4. OUTCOMES OF THE ANALYSIS

4.1. CONFLICT POTENTIAL

A region-wide conflict between the Central Asian states is not an imminent probability, and a bilateral declaration of war also appears unlikely. However, there are local disputes that have repeatedly erupted into violent clashes in the past. Water has not been the primary trigger for these but is one important factor in many recurring quarrels, entwined with other issues such as border disputes. In addition, there is a protracted antagonism causing tension between the countries regarding the use of water and energy resources.

Particular conflict potential has concentrated in the Ferghana Valley, in the territories of Uzbekistan, Kyrgyzstan and Tajikistan. As a densely populated region with disputed borders, ethnic fragmentation and water stress, the grounds for outbreaks of violence are present. In addition to armed struggle, the circumstances also enable organized crime, land grabs and other kinds of insecurity.

Another high-risk setting is between Kyrgyzstan and Tajikistan, where border disputes have erupted into violent clashes several times in the past. In September 2022, the most severe violence in years broke out in the Batken region with nearly 100 casualties. While the clashes have remained local, tensions between Kyrgyzstan and Tajikistan are high. Water is also

a factor in the border dispute, as access to water facilities has often been a cause of violence.

An additional significant conflict dynamic concerns the whole region, caused by the hydro-energy complex based on governance structures and water infrastructure of Amu Darya and Syr Darya between the upstream and downstream countries. Rather than conflict, this dynamic is perhaps better described as an antagonism, as there is also cooperation between the countries and it has been possible to negotiate and resolve issues, such as dam projects. However, the harmful impacts of the setting are far-reaching, maintaining polarization between the countries and hindering constructive dialogue or consultation on regional water issues. The rift between upstream and downstream countries on water and energy also feeds into other regional disputes and problems in the bilateral relations between the countries.

For Central Asia as a whole, it is possible to identify several conflict factors. These include: internal developments in the countries, particularly unstable and undemocratic tendencies; organized crime and corruption; nationalism; weaknesses in water governance; and excessive use of water. In addition, there are conflict drivers between the countries and their regional context, such as border skirmishes, lack of commitment to regional cooperation, distribution of water resources, and the significance of water as a resource to the region.

These factors may, in various ways, sustain existing disputes and conflicts and exacerbate them but also create new ones. The border disputes between Kyrgyzstan and Tajikistan are enabled by the lack of recognized borders and a weak security situation with thriving organized crime, but it is also linked to the distribution of water resources and their excessive use. Meanwhile, previous tensions between Tajikistan and Uzbekistan have considerably toned down, but it is possible they could flare up again, for example, if the need to secure high levels of water consumption is increasingly combined with nationalist rhetoric.

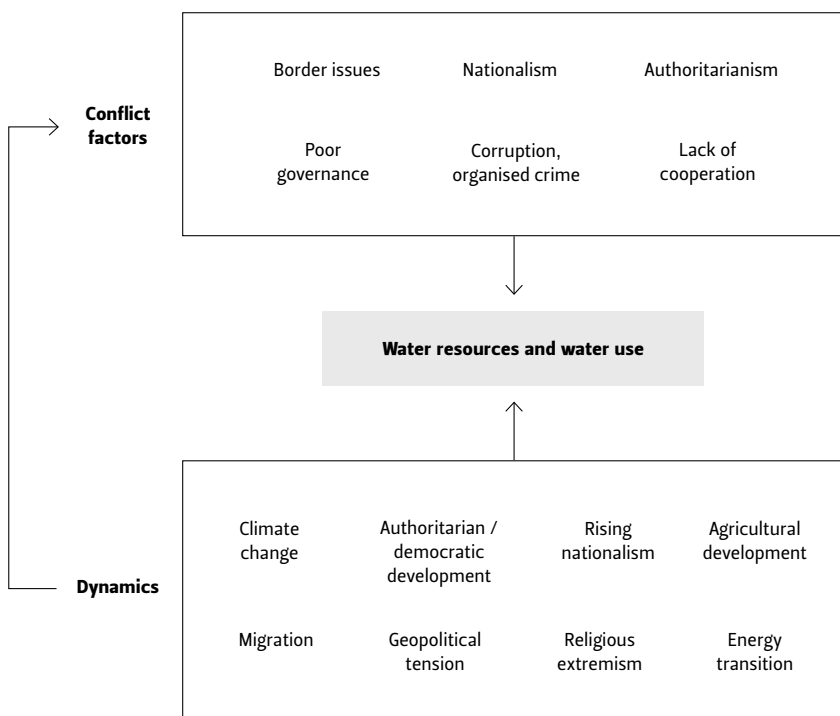


Image 6. Conflict factors and dynamics in Central Asia
Source: Authors' compilation

The conflict factors identified in this study are presented in Image 6. As presented, the factors are interwoven with broader regional and political dynamics, including climate change, migration, changing geopolitical situation, the rise of nationalism, authoritarian and democratic dynamics and the rise of religious extremism. Dynamics are also related to water use, i.e., reduced availability of water and increasing water consumption, as well as related cross-sectoral dynamics, particularly energy transition and changes in agricultural practices such as the modernization of irrigation infrastructure and diversification of crops.

These dynamics may alleviate harmful developments but they also have the potential to aggravate vulnerabilities and accentuate conflict factors. For example, climate change and rising water consumption are very likely to further exacerbate the overarching controversy over water and energy allocation between the upstream and downstream countries. If there is less water available while more is consumed, the awkward balance that has prevailed between the countries is more likely to break. On the other hand, an effective energy transition could help to reduce water

demand while also contributing to the mitigation of climate change and yielding opportunities for cooperation. At the same time, unilaterally implemented climate action combined with an increase in hydropower could cause controversy.

4.2. RESILIENCE SOURCES

Despite significant conflict dynamics, some sources of resilience and stability can also be identified in Central Asia. First, transboundary water agreements and institutions clearly provide the grounds for regional cooperation and the possibility for the countries to discuss and deliberate on transboundary water issues in a coherent, mutually acceptable and stability-inducing way. While there are considerable shortcomings with the institutions in their present form – particularly Kyrgyzstan currently not participating in the IFAS – they are still able to function and provide platforms between the countries. Moreover, a reform of the regional cooperation framework under the IFAS is being discussed, including how the energy sector could be involved.

Second, the importance of water as a shared resource has created problems but can also yield common understanding between the Central Asian countries. They all recognize their interdependence and the necessity of securing water access now and in the future. By working together, they would increase the potential of benefits and avoiding aggravating vulnerabilities. Third, it is important to recognize the agency of the Central Asian countries as a source of resilience, not only as a potential for conflict. The countries have a great interest in finding mutually beneficial solutions and have also demonstrated a willingness to act on issues like water diplomacy, for example, through Kazakhstan's proposal for a water-energy consortium and Tajikistan's engagement in the Dushanbe Water Process. These efforts should be supported while still maintaining a regional and cross-sectoral perspective on their potential outcomes.

Fourth, all the Central Asian countries have an interest in adapting to the impacts of climate change, as has also been demonstrated through several ongoing initiatives, and the need to strengthen adaptation at the level of transboundary basins is more widely recognized. By finding cooperative climate solutions, these efforts could also contribute to regional stability. Fifth, international cooperation can be an asset and source of resilience by supporting the Central Asian countries to recognize the sources mentioned above. There are a variety of actors working on transboundary water issues in Central Asia, with prolonged experience and

a strong commitment to their role. Any new initiatives should consider the preceding and ongoing work and all of the information and outputs it has generated.

4.3. VULNERABILITIES

Some of the main vulnerabilities in the prevailing situation of transboundary water cooperation in Central Asia are linked to the institutions involved. This appears to be the case for regional and national institutions alike. It is also widely recognized by the Central Asian countries that the Almaty agreement and the institutional framework around it, including organisations like IFAS and IWCW, have a limited ability to influence regional water governance. Since the agreement and the mandates of the organisations have been restricted to water, excluding energy and agriculture, they are rarely able to address the kind of cross-sectoral, nexus-related questions that are the main cause of tension between the countries.

Despite the recognition of these shortcomings, comprehensive reform of the transboundary water management system appears unlikely at present. The countries, especially Kyrgyzstan and Tajikistan in the upstream, are opposed to giving up any aspect of their sovereignty that could restrict their decisions about water use. While efforts to reform IFAS are ongoing, their impact will remain vague unless the water-energy-nexus is addressed. This presents a sombre outlook of a future where climate change advances, water availability may be further reduced, and the countries continue to be unable to engage in constructive dialogue about water and energy. In addition, Afghanistan, although a riparian on the Amu Darya, has not been formally involved in the regional cooperation framework on water. The future development of Afghanistan is unclear, which creates significant uncertainty about its future use of water resources.

Another vulnerability is caused by the geopolitical situation and the ramifications it may have, especially in regions near Russia. Central Asia has also been affected by Russia's full-scale attack on Ukraine in 2022 as the countries retain relatively close diplomatic ties with Moscow. Central Asia is becoming increasingly important for Russia, but at the same time, the war in Ukraine is likely to weaken its military presence in the region. This leaves the Central Asian countries in a new situation as Russia has traditionally been their main security provider. At the same time, Chinese influence is strengthening, especially in economic terms. While it is too early to predict the outcomes of this emerging setting, it adds to the unpredictability around the Central Asian countries.

4.4. RECOMMENDATIONS: OPPORTUNITIES AND POTENTIAL STEPS FORWARD

The Central Asian countries have been cooperating on the topic of water since their independence in the 1990s. The wealth of actors, programmes and institutions that has emerged shows that water is still very relevant and that advances can be made in strengthening regional cooperation on it. At the same time, as this analysis has also pointed out, the existing structures or level of cooperation have not been adequate to ensure an effective and comprehensive dialogue as well as comprehensive action among the countries on water issues, particularly in a cross-cutting context with regards to other issues like energy and agriculture. In other words, more remains to be done to encourage cooperation, mutual understanding and agreeable compromises on transboundary water governance in Central Asia.

The number of previous and existing water-related initiatives and institutions in Central Asia also emphasizes the need to carefully consider what further actions will be beneficial and applicable. This makes it particularly important to ensure that any potential projects launched will not merely be duplicating what has previously been done. Instead, it is necessary to build upon previous work and find innovative ways of working. Especially from the point of view of a relatively small actor with limited resources on the ground, such as Finland, the question is also one of finding the right niche to operate in. Finland has the benefit of having a good reputation due to previous cooperation in the water sector and, as a smaller country, may prompt less misgivings concerning political interests than larger geopolitical actors like the EU or United States. On the other hand, cooperation with bigger international partners should by no means be excluded as an option as it can be useful for increasing leverage and impact.

Overall, there are limitations to the ability of actors from outside Central Asia to effect change in regional relations and water cooperation as the main responsibility for transboundary water governance needs to lie with the countries of the region. External actors like the EU, UN agencies and other international organisations, as well as individual countries will, however, continue to have an interest in ensuring that the relations of the countries develop favourably. At the same time, each actor also has their own impetus and approach for working on water cooperation in the region which need to be taken into account, especially when mapping potential partners for cooperation.

Ultimately, it is the countries of Central Asia that bear the responsibility for the actions and objectives of transboundary water governance.

There are many good examples where the countries have been able to promote their own interest by working together, such as the cooperation between Kazakhstan and Uzbekistan to address the May 2020 Sardoba dam collapse, or the decision of Uzbekistan to reverse its opposition to the Rogun dam built by Tajikistan and instead to buy some of the energy generated. However, opportunities for such shared benefits are likely to be missed due to the lack of effective regional dialogue mechanisms which cannot be substituted for bilateral cooperation. In addition, participation should increasingly extend vertically across levels of governance, which has not been common practice in the primarily centrally-led Central Asian states. External actors can aim to support initiatives that work to achieve shared benefits, minimize negative impacts and emphasize participation.

The analysis in this report gives rise to several recommendations for promoting good and effective transboundary water cooperation and regional stability in Central Asia. They have been formulated for the consideration of Finnish policymakers and ministries in particular but can also be of wider interest. The aim has been to reflect modes of action that can politically be feasible in the current institutional and cooperative setting.

*Identify and promote mutual benefits
through transboundary water governance*

As the analysis points out, the Central Asian countries face several mutual challenges, including climate change, energy transition and the need to strive for more sustainable water use across sectors. External actors can help to identify points of mutual benefit and support initiatives between two or more countries to tap into them. At best, steps that initially appear small can feed into broader collaboration and shared understanding. Motivation for joint action can also be found in the commitments and obligations under international agreements and conventions, notably the Helsinki Water Convention, making it important to promote further adherence to them.

One example of an interest shared throughout the region is water efficiency. Kazakhstan and Uzbekistan have already taken some steps to invest in water saving technologies and improve the efficiency of their water use. The Central Asian countries should be supported in sharing experiences and practices to work towards effective solutions. Their interactions should integrate cross-sectoral aspects, particularly regarding agriculture and energy, both of which are significant factors for energy efficiency and impacts on water resources.

Similarly, all the Central Asian countries will need to put increasing effort into the mitigation of, and adaptation to, climate change. In many

cases, information sharing between the countries may be a necessity for better understanding and greater awareness of the risks associated with glacier retreat, change and variability of water resources or extreme weather events. Here, Finland can have a role in supporting information collection and management as well as facilitating cooperation between Central Asian and Finnish research or educational institutions to generate necessary knowledge and capacity.

Meanwhile, joint action on climate mitigation measures may bring economic benefits and help reduce costs from damage and maladaptation. In both mitigation and adaptation, water plays a significant role, for example, in terms of understanding flood risk or the impacts of increasing hydropower. Climate action and financing may provide helpful frameworks for beneficial joint action and the mobilization of resources.

Strengthen regional dialogue on the links between water, energy, agriculture and environment

While there are some regional institutions for water in Central Asia, dialogue within them is particularly restricted by the inadequate integration of other sectors. More inclusive and comprehensive dialogue should therefore be encouraged, either in the existing institutions or through additional forums. Initiatives to this end, which have been proposed by Kazakhstan and several international organisations, should be supported. While high-level political engagement, especially on water and energy, has been difficult to advance in Central Asia, relatively informal and unofficial interactions can serve as important first steps. External actors can contribute expertise and help to integrate cross-sectoral dialogue through the nexus approach. Some possible directions for useful action have been outlined, for example, in the outcome of the dialogue in a regional workshop on transboundary water allocation in Central Asia, which also prominently featured the nexus approach.³²⁹ Dialogue between the countries and sectors can also be promoted on various international fora.

Promote local ownership and wider participation

In order to ensure the long-term feasibility and impact of cooperation within the water diplomacy domain, local and national parties need ownership. External actors must prepare concrete initiatives in close consultation with local counterparts and implement them in cooperation. The objectives of individual projects should be linked into broader goals to contribute to the long-term development and stability of the region. Nationally supported projects and actions may also be helpful elements

329 IWAC 2022.

for water diplomacy if complemented by, or used in, dissemination and exchange of experience at the regional level. Finnish water sector expertise, including the private sector, may also provide local technical solutions and references with the potential for replication on issues like pollution or water efficiency.

Moreover, water governance should increasingly extend participation vertically at all levels, from the national to local. In particular, the role of water users in decision-making needs to be strengthened. This specifically includes encouraging the participation of women in water-related governance as they have a central role as the users and managers of water in Central Asia. By building the capacity of young female water professionals and overall dismantling gender-related obstacles to decision-making, it is also possible to contribute to the long-term ownership and impact of water governance.

Strengthen donor coordination and increase leverage through cooperation with international partners

Due to the large number of international actors contributing to the water sector in Central Asia, it is necessary to know what others are doing and how this relates to the overall development of the region. Good communication with international counterparts is important. Donor coordination is also crucial, and the potential of existing regional institutions like the IFAS increasingly taking responsibility for it could be explored.

For a small actor such as Finland, it may also be worthwhile to join a larger partnership with other actors. While cooperation inevitably requires some degree of negotiation and compromise around objectives, it can also significantly broaden the range of possible actions and impact. The EU also provides a wider frame of cooperation, especially through the ongoing Team Europe Initiative ‘Water-Energy-Climate Change in Central Asia,’ where Finland could take an increasingly visible role. The initiative provides coordination for support from EU member states and may yield opportunities for synergies, including with international financial institutions.

Promote the integration of a nexus approach to transboundary water governance

The analysis in this report shows how deeply interlinked transboundary water governance in Central Asia is to other issues, particularly energy and agriculture. The application of the nexus approach in the region is not without challenges due to the relations between the countries being sensitive to water issues; these difficulties only underline the need for

understanding cross-sectoral links. It is also increasingly necessary to employ the nexus approach to follow emerging developments associated with the mitigation of climate change and energy transition. The electrification of societies, a growing need for the extraction of minerals and efforts to advance hydrogen-based solutions, for instance, will potentially have significant consequences for water resources.

There are some encouraging examples of successful endeavours based on nexus thinking, such as the assessment of the water-food-energy-ecosystems nexus in the Syr Darya River Basin implemented by the UNECE, which produced a joint identification of cross-sectoral solutions. This work also provides a platform to build upon in order to integrate nexus thinking to other areas. As a long-term partner of the UNECE that has also contributed to the development and application of the nexus approach, Finland could take a role in mainstreaming it in Central Asia. In addition, the nexus approach and water allocation provide tools for reconciling different water needs and Finland is (co-)leading the respective areas of work under the Water Convention.

CONCLUSIONS

As the analysis has shown, the tense geopolitical situation, economic upheaval, climate change and other crises have implications on the regional stability in the Central Asian countries. At the same time, internal developments, like poor governance, authoritarian rule, nationalism, corruption and organised crime, challenge the internal politics within the countries and may be reflected on the relations between them. However, insecurities associated with the current situation are by no means predetermined to lead to instability or tensions between the countries. Importantly, water-related factors can provide pathways to peaceful and sustainable development of the region

The water diplomacy analysis approach used in this report helps to identify potential points of cooperation and factors of resilience that could be grasped to contribute to the peaceful development of regional relations. To do that, the analysis also covered major conflict factors that may have adverse consequences and disrupt stability, as well as broader dynamics that will shape the context of development in Central Asia. In addition, the analysis mapped actors that are relevant for water governance in the region. The observations and conclusions strongly suggest that there is a need for situational awareness and conflict analysis tools specifically emphasising the dimension of water resources and their use. In a region with significant transboundary water resources, such as Central Asia, the relevance of water for conflict analysis is particularly pointed.

Water and its use have not been the main or sole cause of instability or insecurity in Central Asia, but they are engrained as a part of many of the key antagonisms and challenges that the countries of the region are facing. Access to water facilities has been one element in the clashes

between Kyrgyzstan and Tajikistan and especially in areas where borders remain indetermined questions about water can feed disputes between countries or ethnic groups. Water also has a significant role in the major regional controversy as countries of the upstream and downstream aim to secure their access to energy and water. Therefore, in order to formulate a comprehensive view of risks, vulnerabilities and sources of resilience, it is not sufficient to only examine cases where water is the cause of conflict as such, but rather to consider the relations and linkages between water and various other factors. Such analysis is increasingly pertinent as climate change advances as it is likely to increase the risk of natural disasters, adding on to the pressure on access to natural resource.

As the present analysis has also shown, a great deal of important work has been carried out in Central Asia to facilitate transboundary water governance and ensure stability. UNECE's work on the nexus assessments of transboundary water basins, for instance, also incorporates the kind of cross sectoral approach that is a necessity for comprehensively addressing the water needs of the countries in the region. In any future work, it is important to build upon previous projects and studies and learn from what has been effective in the past. While new ideas and initiatives are needed, it may be equally worthwhile to replicate previous practices and policies when they have been successful.

Water issues will continue to be pressing for the future of the Central Asian countries. The current geopolitical upheaval as well as the new challenges brought about by climate change will add new pressures, but they may also present new preconditions and scope for mutual benefits. While it is up to the countries of the region to seize such opportunities, external actors can contribute by supporting institutional frameworks and approaches that enable cooperation.

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WATER DIPLOMACY ANALYSIS FOR CENTRAL ASIA

DYNAMICS OF INSECURITY AND SOURCES OF RESILIENCE

Climate change, geopolitical tensions and other global crises emphasise the need for water diplomacy, which refers to the prevention and resolution of political tensions with the help of water expertise and diplomatic tools. Disputes over water can contribute to instability, but fair and well-governed management of water resources can serve as a platform for cooperation and peacebuilding.

In Central Asia, water has a crucial role as a precondition for economic and social development, but also for relations between the countries in the region due to the largely transboundary and shared character of resources. Questions about water use have been intertwined in disputes about other unresolved issues between the countries in the past. As the impacts of climate change become increasingly visible and are likely to further reduce water access, it is important to better understand the water conflict and resilience dynamics.

This analysis traces the potential for water diplomacy in Central Asia. It identifies major conflict factors, peace enablers, regional dynamics and the role of water resources. The analysis takes an anticipatory, forward-looking approach, particularly focusing on sources of resilience and potential points of cooperation.