



Università degli Studi di Cagliari

**DOTTORATO DI RICERCA IN STORIA, ISTITUZIONI E
RELAZIONI INTERNAZIONALI DELL'ASIA E
DELL'AFRICA MODERNA E CONTEMPORANEA**

XXVI Ciclo

Power and Dams in Central Asia

Settore scientifico disciplinare di afferenza

SPS/14

Presentata da: Dott. Filippo Menga
Coordinatore Dottorato: Prof.ssa Bianca Maria Carcangiu
Tutor/Relatore Prof.ssa Annamaria Baldussi

Esame finale anno accademico 2012 – 2013

Abstract

The purpose of this research is to analyse and understand the role of state power in transboundary water relations, providing an in-depth analysis of the evolution of interstate relations in Central Asia in the field of water in the period 1991-2011. Taking as a case study the planned construction of the Rogun and Kambarata dams in Tajikistan and Kyrgyzstan, the research looks at the various forms of overt and covert power shaping interstate relations and at the way hegemonic and counter-hegemonic measures are put in place in an international river basin. The overarching hypothesis driving this study is that the intimate correlation between the concepts of power and hegemony can offer key insights to the analysis and understanding of transboundary water relations. While, on the one hand, the analytical focus is placed on state power, on the other hand, hegemonic and counter-hegemonic tactics represent the ways in which power is wielded and observed.

This research makes an original contribution to the literature on hydropolitics in Central Asia, offering fresh theoretical interpretations to the subjects of power and counter-hegemony in the Aral Sea basin and presenting the original “circle of hydro-hegemony”, an analytical framework in which the various forms of power are “connective” in the function of hegemony. A further value is added by three timelines expressly created for the research and that represent, at the time of writing, the most detailed reference-supported collection of events of this kind for the Central Asian region in the period 1991-2011.

Table of contents

Illustrations	vi
List of abbreviations.....	viii
Acknowledgements	x
Chapter 1. Introduction	1
1.1. The politics of international waters	2
1.1.1. The Neo-Malthusian approach and the water-war theory	5
1.1.2. The Cornucopian or neoliberal approach	9
1.1.3. Critical hydropolitics.....	10
1.1.4. Hydraulic infrastructures and political power	12
1.2. Choice of the case studies	14
1.3. Aim of the thesis and research questions	18
1.4. Outline of the dissertation	20
1.5. Originality and scientific value of the research.....	23
Chapter 2. Theoretical framework and methodology	25
2.1. Constructivism	25
2.1.1. Constructivism and hydropolitics	27
2.2. Power.....	29
2.2.1. Three dimensions of power	30
2.2.2. From hard to soft power	34
2.3. Hegemony	36
2.3.1 Hegemony applied to IR	38
2.4. The framework of hydro-hegemony.....	41
2.5. Hydro-hegemony revisited	46
2.5.1. Counter-hegemonic strategies: a neglected concept	48
2.5. The TWINS framework	50
2.5.1. Conflict intensity	51
2.5.2. Cooperation intensity	52
2.5.3. Application of TWINS to this study.....	53
2.6. Data collection and methods of analysis	54
Chapter 3. Water relations in Central Asia	56
3.1. Background on transboundary waters and international water law	56
3.1.1. Defining transboundary waters.....	57

3.1.2. Principles of international water law	59
3.1.3. Principles of Soviet water law.....	62
3.2. Hydrological and geographical aspects of the Aral Sea basin	64
3.2.1. The meaning of water for Central Asian people.....	67
3.3. The Soviet hydraulic mission	69
3.3.1. Bringing water to the desert	69
3.4. The water/energy nexus.....	73
3.5. A weak institutional framework	75
3.6. Twenty years of water relations.....	80
3.6.1. Coexisting conflict and cooperation	80
3.6.2. Three stages of regional relations.....	83
3.6.3. Tajikistan and Uzbekistan	88
3.6.4. Kyrgyzstan and Uzbekistan.....	92
3.7. Conclusions.....	95
Chapter 4. The Rogun Dam.....	97
4.1. Overview of the Rogun dam.....	97
4.1.1. Independent Tajikistan and the Rogun dam.....	99
4.2. Expected impact of the Rogun dam	100
4.2.1. A step towards energy independence.....	101
4.2.2. A strong political symbol and a unifying element.....	105
4.2.3. Potential threats to the reliability of water supplies and to the environment	107
4.2.4. The ensuing debate	108
4.3. Tajik counter-hegemonic tactics.....	109
4.3.1. Internal support: creation of a Rogun ideology	111
4.3.2. Mobilization of financial resources	114
4.3.2.1. Involving countries.....	115
4.3.2.1. ...and financial institutions	118
4.3.3. Internationalising Rogun	119
4.3.3.1. Rogun meets the UN (and a few more).....	120
4.3.3.2. Water conferences	124
4.3.4. Knowledge construction.....	126
4.4. Conclusions.....	128
Chapter 5. The Kambarata Dam	130
5.1. Overview of the Kambarata Dam	130
5.1.1. Independent Kyrgyzstan and Kambarata.....	133
5.1.2. Between corruption and internal criticism.....	135

5.2. Expected impact of Kambarata	137
5.2.1. Boosting Kyrgyzstan’s energy production	137
5.2.2. Kambarata is good for Kyrgyzstan!	139
5.2.3. Environmental problems and the setting of a precedent	140
5.2.4. The ensuing debate	142
5.3. Kyrgyz counter-hegemonic tactics	143
5.3.1. Promoting Kambarata at the domestic level.....	145
5.3.2. Mobilization of financial resources	148
5.3.2.1. The international consortium and the involvement of Kazakhstan.....	149
5.3.2.2. The Russian loan and the Manas affair.....	150
5.3.3. International support	152
5.3.3.1. Proactive diplomacy	153
5.3.4. Knowledge construction.....	156
5.4. Conclusions	158
Chapter 6. Uzbek hegemonic tactics	159
6.1. Perceiving a threat	159
6.2. Seeking international support.....	162
6.2.1. Reactive diplomacy	163
6.2.2. Incentives to get allies	167
6.3. Knowledge construction	169
6.4. Recourse to international law	171
6.5. Beyond diplomacy: active stalling	172
6.5.1. Issue linkage.....	173
6.6. Resource capture.....	175
6.7. Conclusions	176
Chapter 7. Conclusions	178
7.1. The two case studies compared.....	178
7.2. The research questions unwrapped.....	180
7.3. Main contributions, limitations of the study and areas for future research.....	182
Annex 1. Methodology.....	187
1. Research process	187
2. Creation of three chronologies	188
3. Speech acts	189
4. Discourse analysis.....	190
Annex 2. Water relations in Central Asia 1991-2011	192
Annex 3. Timeline of the Rogun dam	242

Annex 4. Timeline of the Kambarata dam.....	267
Bibliography.....	288
1. Monographs and edited books	288
2. Articles from academic journals, edited books and conference proceedings	296
3. Doctoral and master theses.....	308
4. Reports and Policy Briefs from International Organizations, Governmental Agencies and Think Tanks.....	308
5. Agreements, Legal Instruments and Resolutions.....	311
6. Speeches, Official Documents and Open Letters.....	314
7. News reports and newspaper articles	318

Illustrations

List of Figures

Figure 1: Narrowing down the scope of the research.....	19
Figure 2: Schematic overview of the thesis structure and of its research questions.	21
Figure 3: Schematic representation of the three dimensions of power.	35
Figure 4: The relationship of forces in an historical structure.....	39
Figure 5: Schematic representation of the three dimensions of power overlapping with hegemony	41
Figure 6: The pillars of hydro-hegemony	43
Figure 7: The circle of hydro-hegemony.....	47
Figure 8: The TWINS diagram	50
Figure 9: Different types of rivers.....	58
Figure 10: The four traditional principles of international water law	60
Figure 11: The Aral Sea basin.....	65
Figure 12: Water flow generation and abstraction (average km ³ per year) in the Aral Sea basin....	66
Figure 13: Simplified overview of the organizational structure of IFAS.....	78
Figure 14: Water issues in the Ferghana Valley.....	83
Figure 15: Trajectory of Tajikistan-Uzbekistan relations (1991-2011)	91
Figure 16: Trajectory of Kyrgyzstan-Uzbekistan relations (1991-2011).....	94
Figure 17: Tajikistan's monthly electricity generation vs. demand in 2009	102
Figure 18: Hydroelectric system of the Vakhsh river	103
Figure 19: The Central Asian Electric Grid	104
Figure 20: Building the Rogun dam: the four tactics forming the Tajik counter-hegemonic strategy	110
Figure 21: Overview of existing and projected power stations in the Naryn river	131
Figure 22: Building the Kambarata dam: the four tactics forming the Kyrgyz counter-hegemonic strategy	144
Figure 23: Wielding power: the five tactics forming the Uzbek hegemonic strategy.....	162
Figure 24: Natural gas pipelines in Central Asia	173
Figure 25: Timeframe of the research	187

List of Tables

Table 1: The Rogun and Kambarata dams compared	16
Table 2: Water Distribution Limits in the Amu Darya and Syr Darya basins according to Protocol 566 and Protocol 413.	72
Table 3: Key data on water availability and usage in Central Asia.....	74
Table 4: Concise timeline of the Rogun project.....	98
Table 5: Content of the addresses delivered at the UNGA by Tajikistan and Uzbekistan, 1999-2012.	122
Table 6: Concise timeline of the Kambarata project.	132
Table 7: Content of the addresses delivered at the UNGA by Kyrgyzstan and Uzbekistan, 1999-2012.....	154
Table 8: Content of the addresses delivered at the UNGA by Uzbekistan, Tajikistan and Kyrgyzstan, 1999-2012.	164

List of abbreviations

ADB	Asian Development Bank
AOA	Annual Operation Agreement
ASSR	Autonomous Soviet Socialist Republic
BVO	River basin organizations, <i>Basseynoe Vodnoe Obedinenie</i>
CACO	Central Asian Cooperation Organization
CAPS	Central Asia Power System
CASA-1000	Central Asia South Asia Electricity Trade and Transmission Project
CIS	Commonwealth of Independent States
EC IFAS	Executive Committee of the International Fund for Saving the Aral Sea
GDP	Gross Domestic Product
EBRD	European Bank for Reconstruction and Development
EMU	Ecological Movement of Uzbekistan
EP	European Parliament
FAO	Food and Agriculture Organization of the United Nations
FHH	Framework of hydro-hegemony
GoK	Government of Kyrgyzstan
GoT	Government of Tajikistan
GoU	Government of Uzbekistan
HPP	Hydro Power Plant
HPS	Hydro Power Station
HST	Hegemonic stability theory
ICAS	Interstate Council on the Aral Sea Basin
ICG	International Crisis Group
ICWC	Interstate Commission for Water Coordination
IFAS	International Fund for Saving the Aral Sea
ILO	International Labour Organization
IPO	Initial Public Offering
KM³	Cubic kilometre
kWh	Kilowatt hour
MDGs	Millennium Development Goals
MFA	Ministry of Foreign Affairs
MP	Member of Parliament
MW	Megawatt
NATO	North Atlantic Treaty Organization
OSCE	Organisation for Security and Cooperation in Europe
PM	Prime Minister
SSR	Soviet Socialist Republic
TFDD	Transboundary Freshwater Dispute Database

UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNGA	United Nations General Assembly
UNRCCA	United Nations Regional Centre for Preventive Diplomacy for Central Asia
US	United States
USAID	United States Agency for International Development
USSR	Union of Soviet Socialist Republics
WB	World Bank

Acknowledgements

While many scholars tend to compare their PhD journey to mountain climbing, I would rather see this as a tennis tournament, both because being born near the sea I haven't had much experience ascending peaks, and also because I wanted to find a way to quote Andre Agassi's book *Open* in my thesis without going too much out of topic. Indeed, as Agassi pointed out, tennis is a sport in which you are by yourself. If you win you get all the glory, but if you lose you get all the shame. Yet, for as much fascinating (or frustrating) this might sound, one thing is more important than winning or losing a tournament: your *entourage*. They are the ones that support you, and they are also the ones that help you improve your game. Likewise, although I bear responsibility for the content of this thesis, many people have helped me to make it more solid and improve "my game", and I will try to thank all of them in the lines below.

My supervisor, Prof. Annamaria Baldussi, for her advice and support and for the lengthy and stimulating discussions about power and hegemony that we had during the last three years in her *studio*. I also owe a great deal to Prof. Sally Cummings, who has been an outstanding source of support and inspiration. I am profoundly grateful to her for sharing with me her time and knowledge, and our talk under a boiling sun in Calamosca remains a turning point in the development of this research. In the same way, I have greatly benefited from numerous thought-provoking discussions with Dr. Naho Mirumachi, who I would also like to thank for her exceptional availability and generosity.

Others have contributed to the realisation of this thesis by discussing with me its content, theoretical framework and methodology, by pointing me in the right direction or towards the right person (or book), or more simply by believing in me. They are (in alphabetical order): Richard Bater, Barbara Bompani, Andrea Corsale, Esther Delbourg, Ariel Dinar, Shlomi Dinar, Ines Dombrowski, Lawrence Dritsas, Aide Esu, Birte Förster, Matteo Fumagalli, Rico Isaacs, Frédéric Lasserre, Alex Loftus, Nate Matthews, François Molle, Laura Movilla Pateiro, Tekeste Negash, Paul Nugent, Mariya Pak, Abel Polese, Giovanni Sistu, Isabella Soi, Max Spiegelberg and Wolfgang Zeller.

Furthermore, my thanks go to the University of Cagliari for funding this research and to Prof. Bianca Maria Carcangiu for her work coordinating the activities of our doctorate. The administrative staff of King's College London and of the University of St Andrews also

deserve my gratitude, as they have managed to make my stay in these two wonderful universities pleasant and uneventful. Similarly, I am grateful to the organisers of the EAERE-FEEM-VIU European Summer School on Management of International Water for inviting me to participate, and for giving me the opportunity to spend a week in the island of San Servolo with such a stimulating group of people.

On a personal note, I would like to thank my family, and particularly my parents, for their continuous support and for bearing the discomfort of having a son that sometimes forgets that hegemony and counter-hegemony are not necessarily a thrilling conversation topic. In the same way, my friends Alessandra, Francesca, Giorgia, Klara, Marcella, Marisa, David, Federico, Filippo, Irene, Lawrence, Mario, Matteo, Michele, Michele and Nicola deserve my gratitude and perhaps my apologies for the poor social life I have been leading during these last years. I also thank Heather, for having me in that delightful little house in Kingsbarns, Daniele, for running to a library in Bologna and get me “that” book on such a short notice, and Davide, for helping me with a project that means a lot to me.

Finally, I thank Anna, my safe haven, my source of inspiration and love. Without her this whole project wouldn't exist.

Chapter 1. Introduction

Water does not resist. Water flows. When you plunge your hand into it, all you feel is a caress. Water is not a solid wall, it will not stop you. But water always goes where it wants to go, and nothing in the end can stand against it. Water is patient. Dripping water wears away a stone. Remember that, my child. Remember you are half water. If you can't go through an obstacle, go around it. Water does.

Margaret Atwood, *The Penelopiad*, 2005

The abrupt collapse of the Soviet Union (USSR) in 1991 was one of the crucial events of the twentieth century. Never before in history had an event of this social and political magnitude emerged with almost no violence (Kramer, 2003). Besides its global impact, that marked the end of the Cold War and of the bipolar international system of superpowers¹ (Huntington, 1999), the vanishing of the last multinational empire gave birth to fifteen countries, as the fifteen constituent republics of the USSR all in a sudden acquired the status of sovereign states². Among them, the five Central Asian republics, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, which never existed before as distinct states, were the less prepared to manage an unexpected and not necessarily sought independence (Mandelbaum, 1994).

These five countries were literally thrust out of the USSR when Russia, Belarus and Ukraine decided to re-form themselves as the Commonwealth of Independent States (CIS)

¹ The bipolar system of the Cold War had two superpowers, the United States and the USSR, whose relations were central to international politics. According to Samuel Huntington (1999), with the breakdown of the USSR a new “uni-multipolar” system emerged, populated by one “lonely superpower”, the United States, and several major powers, such as Germany, France, China and Brazil. It is worth noting that Stanley Hoffmann, the eminent liberal politologist, acknowledged the end of the postwar bipolar world already in 1972, based on his conception of world politics in terms of distinct issue areas, that he defined alternative chessboards (Hoffmann, 1972)

² The three predominantly Slavic countries, Russia, Belarus and Ukraine, were joined by the Baltic republics, Estonia, Latvia and Lithuania, the Caucasian ones, Armenia, Azerbaijan and Georgia, and the five Central Asian states.

in December 1991 (Olcott, 1996: 4). One of the implications of this premature birth was that the old economic and political ties established by the USSR ceased to exist, and with them the centralised Soviet resource distribution system that managed the exchange and allocation of water, energy and food supplies among the republics. A whole new set of international relations emerged, and the newly formed Central Asian governments had to redefine the policies related to the exchange and sharing of their natural resources. The interconnections and interdependence that emerged from this complex scenario, and the related power dynamics in interstate relations in Central Asia³, are the subject of this thesis.

This chapter first provides a literature review of the recent academic debate on the politics of transboundary waters and of large dams, to then introduce the two case studies adopted for this research. Subsequently, it illustrates the research questions driving this study, its main objectives, and the structure adopted to carry out this analysis. Finally, it outlines the originality of the research, explaining where it stands in relation to hydrogeopolitics and Central Asian Studies.

1.1. The politics of international waters

This section reviews hydrogeopolitics literature, presenting different views on how water resources can affect interstate relations. After a discussion of the two main approaches, the Neo-Malthusian and the Cornucopian, critical hydrogeopolitics will be introduced and subsequently linked with the main studies that delved on the relation between water management and the distribution of power within states. This digression is relevant to the understanding of the political rationale behind the construction of large dams such as the Rogun and Kambarata, and also to outline where this study stands in relation to the hydrogeopolitical debate.

³ To avoid ambiguity, throughout this study the term Central Asia refers to the region formed by the five former Soviet Socialist Republics (SSRs) of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. The current understanding of Central Asia as the region formed by these five countries comes predominantly from the common past that these countries share as territorial colonies of the Russian Empire and, after 1917, of the Soviet Union (although, as John Heathershaw noted, “it is not universally accepted when or to what extent Central Asia was, is or will be historically postcolonial”) (Heathershaw, 2010: 88). On the geographical delimitations of Central Asia, Frederick S. Starr (2008) called for the revamp of the historical idea of a “Greater Central Asia”, a broader region that also includes the Chinese Autonomous region of the Xinjiang and Northern Afghanistan. An even wider Central Asian region includes the Khorasan province of Iran, the northern part of Pakistan, inner Mongolia, the Russian area of Tatarstan, Kashmir, Tibet, Qinghai and Gansu (Cowan, 2007).

Water is a quintessential component for life and for the development of societies. Water is also an irreplaceable and transient resource, which crosses political boundaries in the form of rivers, lakes and groundwater aquifers. Freshwater resources account for only 2.5 % of the total world water⁴, and this relative scarcity further increases their political and economic relevance.

While Peter Mollinga (2001: 733) concisely observed that “[a]t a general level, the statement that “water is politics” hardly needs any defence”, initially, the study of international transboundary waters has been linked primarily with security studies. In this regard, the end of the Cold War set a milestone causing the falling-off of the traditional security threats and the development of a new global political agenda. Problems that disregard national borders, such as global warming, water scarcity and heavy pollution, emphasized the world's growing environmental interdependence, redefining the concept of national sovereignty and stressing the need for regional rather than national solutions. A crucial contribution to the debate was brought by Barry Buzan and the Copenhagen School (Buzan et al., 1998), which stretched the classic notion of security within the field of international relations to include the new key concepts of “securitization”, “sectors” and “regional security complexes”. As Buzan observed, “something is designated as an international security issue because it can be argued that this issue is more important than other issues and should take absolute priority (...) and it is presented as an existential threat”. This applies also to the environment and to current water challenges, that “reflect the larger struggles among states to secure their boundaries and establish control over their territories” (Buzan et al., 1998: 24). Hence, as explained by Turton (2003), the association between security concerns and water management brought to the “securitization of water resource management”.

Towards the end of the 80s, with a ground-breaking article published in the review *Foreign Affairs*, Jessica Tuchman Mathews (1989) called for a redefinition of the concept of national security to include resource, environmental and demographic issues⁵. A few

⁴ Of this 2.5 %, only 0.3 % (around 105 000 km³) is constituted by freshwater lakes and rivers.

⁵ Jessica Tuchman Mathews (1989: 164) argued that an important paradox has to be taken into consideration when examining natural resources: nonrenewable resources (such as coal and oil) are in fact inexhaustible, while renewable resources can be finite. On the one hand, humankind will find substitutes and alternative technologies to nonrenewable resources as they become scarce and more expensive. On the other hand, this

years later, in 1994, Robert Kaplan's pessimist and highly debated article "The Coming Anarchy" (1994) defined the environment as the key national-security issue of the early twenty-first century, the one that will set the tone for international relations in the years to come. It is in this context that water management became associated with security issues, and a new debate emerged among those who saw the use of shared international watercourses as a vector of conflict or cooperation, initiating a new field of IR called hydro-politics.

If, on the one hand, the connection between water and politics had already been studied in 1957 by Karl August Wittfogel (see paragraph 1.1.4), on the other hand, the term hydro-politics appeared for the first time in the title of a book by John Waterbury (1979) that discussed tensions originating from diverging interests in the use of the river Nile. Since then, many scholars have used it as a keyword in their research (e.g. Ohlsson, 1995; Wolf, 1995; Elhance, 1999; Trottier, 1999; Allan, 2001; Turton and Henwood, 2002). As defined by Elhance (1999: 3), hydro-politics is "the systematic study of conflict and cooperation between states over water resources that transcend international borders". Starting from this dual dimension of the discipline, marked by conflict and cooperation, two main branches of thought can be distinguished: a Neo-Malthusian school, which sees water as a potential reason for conflict, and a Cornucopian ramification, which underlines the cooperative potential of water. These two branches correspond to the two main discourses forming the rationalist paradigm of IR, realism and liberalism, that since the late 1980s have been theoretically countered by the constructivist approach to IR⁶ (Katzenstein et al., 1998).

will not be possible for renewable resources, since an overfished fishery will not recover, extinct species will not reappear and eroded topsoil cannot be replaced.

⁶ As Katzenstein et al. noted, rationalist theories of IR take into consideration a world formed by "rational actors with unproblematically specified interests, competing in a situation characterized by scarce resources". Conversely, "constructivist theories look to the humanities and sociology for insights into how "reality," including the interests that partially constitute the identity of actors, is socially constructed" (Katzenstein et al., 1998: 646).

1.1.1. The Neo-Malthusian approach and the water-war theory

In the neo-Malthusian⁷ conflict scenario, rapidly growing populations will cause degradation and scarcity of natural resources, consequently increasing the risk of violent conflict over scarce resources (Urdal, 2005: 418). Neo-Malthusian authors (among the others, Falkenmark, 1992; Gleick, 1993; Gleditsch, 1998; Homer-Dixon, 1994 and 1999; Tuset et al., 2000; Klare, 2001; Russell and Morris, 2006) have observed that when countries share a common resource such as water, if this resource becomes scarce governments will take all necessary measures to defend it, including actions that lead to conflict. According to these authors, scarcity exacerbates the interdependence of river riparians and brings them to competition and disputes.

This leads us to the water-war thesis, that became particularly popular in the early 1990s (Cooley, 1984; Starr, 1991; Villiers, 1999) with the emergence of the new and broadened understanding of security. In a widely cited article, Joyce R. Starr (1991: 17) asserted that “as early as the mid-1980s, U.S. government intelligence services estimated that there were at least 10 places in the world where war could break out over dwindling shared water [...] into the perilous zone where all available fresh surface and groundwater supplies will be fully utilized.” Similarly, Michael T. Klare (2002: 23) predicted military conflicts resulting from freshwater needs and identified three main factors that will increase tensions: i) escalating demand; ii) resource shortages and iii) the proliferation of ownership contests. In an interview released in 2008⁸, Klare also stated that between oil and water, “the more likely conflicts will be over water”. Likewise, Leif Ohlsson (1995: 20) supported the water-war theory, asserting that conflicts over water have already been a major contributing cause of war and annexation of territories in at least one case: the 1967 Six-Days Arab-Israeli War.

But what does exactly the term “water scarcity” mean? The Swedish hydrologist Malin Falkenmark (Falkenmark at el., 1989) created the widely adopted “water stress index”, that defined water scarcity as the condition when the amount of renewable freshwater available for each person each year in a given country is below 1,000 cubic meters. When the amount

⁷ Modern Malthusianism or Neo-Malthusianism takes its name from Thomas Malthus' *Essay on the Principle of Population* (1798), which predicted that demography-induced resource scarcity will eventually lead to either famine or war.

⁸ Big Think Forum, “Which is More Likely: Oil Wars or Water Wars?”. Available from: <http://bigthink.com/ideas/1883> [Accessed 4 January 2012].

is below 1,700 cubic meter per person per year, a country is in a “water stress” situation, and when it is below 500 cubic meter, the condition is of “absolute water scarcity”. According to Falkenmark (1990), water problems such as water pollution, water scarcity, and land degradation will be in the future exacerbated by population growth and this “water barrier” to success will limit the security of livelihood, socioeconomic development, and quality of life in developing countries. On obstacles to development, Phillips (2006: 19) added that “conflict arises over water resources when riparian States feel constrained in their ability to realize their national goals and objectives, generally as a result of one or more coriparians unilaterally using the resource”. It is worth noting that Malin Falkenmark (2007) later revisited and expanded the concept of scarcity focusing not only on physical scarcity but also on issues related to power structures and social contexts.

Water being a finite resource, Thomas Homer-Dixon (1994) from the Toronto Group made a distinction among non-renewable and renewable resources, identifying for the latter three main sources of scarcity: unequal social distribution, environmental change and population growth. Through the analysis of numerous water disputes around the planet, Homer-Dixon concluded that “the renewable resource most likely to stimulate interstate resource war is river-water” (1994: 19), since environmental scarcity causes violent conflicts both at the internal and (to a lesser extent) at the international level. A few years later, however, Homer-Dixon (1999) revised his position and questioned the often-cited statement of the World Bank’s Vice President for Environmentally Sustainable Development, Ismail Serageldin, that in 1995 had declared that “the wars of the next century will be fought over water” (Crossette, 1995). Homer-Dixon (1999: 139) countered that “in reality, wars over river water between upstream and downstream neighbors are likely only in a narrow set of circumstances [and] There are, in fact very few river basins around the world where all these conditions hold now or might hold in the future.”

Some of the most well-known water-war declarations⁹ were also quoted by Peter Gleick (1993: 79) to affirm that “water and water-supply systems are increasingly likely to be both

⁹ In 1979, the then-Egyptian President Anwar Sadat declared that “the only matter that could take Egypt to war again is water”. Likewise, in 1988 the then-Egypt’s foreign minister, Boutros Boutros-Ghali (who later became the UN Secretary-General) declared that “The next war in our region will be over the waters of the Nile, not politics”. Gleick also cited Israeli Premier Levi Eshkol's speech at Tiberias in 1965, in which the politician stated that “Water is a question of life for Israel,” and that therefore “Israel would act to ensure that

objectives of military action and instruments of war as human populations grow, as improving standards of living increase the demand for fresh water, and as global climatic changes make water supply and demand more problematic and uncertain". Gleick supported his assertions with a detailed chronology in which he classified 54 historical and ongoing disputes and conflicts over freshwater resources¹⁰ (1998: 25–31). Additionally, Gleick (1993) argued that there are four factors or characteristics that make water likely to be a source of strategic rivalry: 1) the degree of scarcity; 2) the extent to which the water supply is shared by more than one region or state; 3) the relative power of the basin states and 4) the ease of access to alternative fresh water sources¹¹.

Linking water and politics, Miriam Lowi examined the Jordan River basin and the dispute between Israel and Palestine to explain how problems related to water have to be analysed in the context of “low politics” of water, and “high politics” of war and diplomacy (Lowi, 1993: 9). In other words, the solution of water problems is closely linked and subordinated to the solution of broader political issues (such as territory or statehood). Her realist approach is then the exact opposite of the functionalist belief that collaboration in the water sector will have a positive spillover effect on larger political issues. Lowi also adapts the neo-realist Hegemonic Stability Theory to the water sector, arguing that when the upstream riparian is also the hegemon (i.e. the most powerful state in the basin), the chances that cooperation takes place are low since it has no interest or incentive in doing so. Cooperation is more probable when the hegemon is located downstream and it has a critical need of water. However, Dinar et al. (2007: 150) efficiently contradicted Lowi’s argument, taking as an example the Colorado River salinity issue between the United States and Mexico. In this case, the former – being both the hegemonic and the upstream state –

the waters continue to flow" (Gleick, 1993: 85-86). For more declarations prospecting water-wars see also Toset et al. (2000: 972-973).

¹⁰ In all these cases, water was an instrument or a target of war, not the cause. In the website of the Pacific Institute “The World’s Water”, Gleick provides an even larger chronology of 265 water conflicts (<http://www.worldwater.org/conflict/list/> [Accessed 21 November 2013]) stretching from 3000 B.C. to 2012, in which water was either a military goal, a military target, a military tool, a political tool, a development dispute or a terrorism target.

¹¹ Moreover, according to Gleick (1998) it is in particular the mismanagement and misallocation of water resources that hampers the resolution of water conflicts in various regions in the world.

not only entered into an agreement with Mexico but also paid the high costs of desalinating the waters flowing downstream¹².

Several researchers associated with the International Peace Research Institute (PRIO) in Oslo also contributed to the debate. Tose et al. (2000) confirmed the link between scarcity and conflict, adding that probabilities for conflict rise when a river crosses a border rather than when it forms it, as “the upstream/downstream relationship appears to be the form of shared river most frequently associated with conflict” (2000: 972). However, they seem less convinced than other authors in establishing a connection between water and conflict. For instance, they comment the work carried out by Malin Falkenmark and Peter Gleick stating that “these authors have not demonstrated that problems of water-sharing have actually played an important role in escalating conflicts to war” (2000: 978), concluding that “we do not have much solid evidence for saying that sharing a river provides a major source of armed conflict, or that water scarcity is the only or even the main issue in whatever such conflicts do occur” (2000: 993).

Further exploring the relation between water and conflict, Nils Petter Gleditsch (1998: 382-383) included water in a list of five resources considered as worth fighting for, the remaining four being territory, strategic raw materials, energy and food. Gleditsch based his arguments on a causal chain of events that sees population growth leading to deteriorated environmental conditions, increasing resource scarcity and a subsequent harsher competition for resources that thus augments the risk of violence. A few years later however, Gleditsch et al. (2006: 362) wrote that “support for a scarcity theory of water conflict is somewhat ambiguous”. According to this study, it is the size of the basin – larger basins reduce the probabilities of having a conflict – and not the number of river crossings or the share of the basin upstream that is associated with conflict. Thus, the authors share neo-Malthusian concerns but they do not find evidence for water wars, as, in their opinion, shared waters resources can stimulate low-level interstate conflict but also be an important incentive for more cooperation. And indeed, a large and expanding epistemic community has stressed the cooperative sides of water rather than the conflictual ones, as outlined in the following paragraph.

¹² The United States government decided to cooperate because it wanted to preserve a good regional and international image, and also because by doing so it hoped that Mexico would encourage a similar cooperation on other sensible matters such as drug trafficking and immigration.

1.1.2. The Cornucopian or neoliberal approach

The gloomy scenario predicted by Neo-Malthusianism clearly diverges with the optimistic perspective often referred to as Cornucopian¹³. Detractors of the water-war theory argue that such predictions are too alarmist and that there is no historical evidence to support them. Zeitoun and Mirumachi (2008: 298) observe that such view was propagated in part by sensationalist media articles and declarations released by various UN Secretary-Generals, recalling pessimistic statements from Boutros Boutros Ghali and Kofi Annan¹⁴.

Towards the end of the 1990s, numerous studies started to emphasize the cooperative aspect of water resources (e.g. Deudney and Matthew, 1999; Elhance, 1999; Wolf and Hamner, 2000; Allan, 2001; Jägerskog, 2003; Phillips, 2006; Wolf et al., 2006; Dannreuther, 2007; Hamner, 2008; Dinar et al., 2011). This shift towards cooperation led to a “desecuritization of water resource management” (Turton, 2003: 96), bringing issues related to water back to the sphere of political negotiations, and out of crisis mode where threat perceptions impede a constructive dialogue. Marwa Daoudy (2010) viewed this “desecuritization” of transboundary water resources as a factor that could both facilitate negotiated agreements between states and contribute to the diffusion of the concept of benefit sharing, that, according to Phillips (2006: 53) “needs to be significantly developed, if it is to become of real utility in the debate on trans-boundary water resource management”.

In 2000, a ground-breaking study carried out at the Oregon State University by a team of scholars led by Aaron Wolf (Wolf, 2000 and later) produced a decisive paradigm shift towards a discourse of cooperation¹⁵. Based on 1,831 instances of conflict and cooperation

¹³ Named after the *cornucopia*, the horn of plenty, a symbol of abundance in ancient Greek mythology.

¹⁴ More recently, the UN Secretary-General Ban Ki Moon underlined the potential that water has in fueling wars and conflicts (Lewis, 2007). However, in 2011 Ban Ki Moon shifted the focus from scarcity to mismanagement, urging “governments to recognize the urban water crisis for what it is – a crisis of governance, weak policies and poor management, rather than one of scarcity” (United Nations Secretary-General, 2011).

¹⁵ Significantly, in 2006 during the highly influential World Water Week (an event organized yearly by the Stockholm International Water Institute) this move towards a cooperative discourse was reflected in the statements released by participants. Among the others, Arunabha Ghosh, co-author of the 2006 Human Development Report, declared that “Water wars make good newspaper headlines but cooperation [agreements] don't [...] and there are plenty of bilateral, multilateral and trans-boundary agreements for watersharing - all or most of which do not make good newspaper copy”. Likewise, Asit K. Biswas declared

occurred within an international river basin of the world from 1948 to 1999, the “Freshwater Transboundary Dispute Database” (FTDD) shows that riparians are more inclined to cooperate rather than entering into conflicts. The analysis demonstrated that during the last 4,500 years there have been 3,600 water related treaties and only one known water war between nations, happened in 2,500 B.C. between the Sumerian states of Lagash and Umma in the Tigris-Euphrates basin (Wolf 2007: 20). The reason for this predominance of cooperation is that water is too important to fight over it. At the sub-national level, water can exacerbate existing tensions and even cause conflicts, but at the inter-state level things go differently (Wolf et al., 2006).

With an approach that recalls the functionalist perspective, water negotiations are seen as a vector that bring countries together building trust and prevent conflicts also at the “higher” political level. As stated by Wolf, a comprehensive approach to water-based conflicts is needed as well as more research aimed at understanding how an “international, indispensable, and emotional” resource as water (Wolf et al., 2006: 5) best contributes to cooperation and peace among nations. Corroborating Wolf’s findings, Hamner (2008: 93) asserts that “there is a global history of water-related violence, but at the sub-national level”. Tensions connected to water are thus acknowledged, along with the fact that existing tensions between countries cannot be attributed to the only issue of water sharing but also to broader pre-existing sources of conflict (Lasserre, 2009; Phillips, 2006).

1.1.3. Critical hydropolitics

In juxtaposition with this dichotomous approach to water politics, the latest tendency in the hydropolitics debate has been to analyse the connection between conflict and cooperation (Postel and Wolf, 2001; Wolf et al., 2003) and the coexistence of these two phenomena (Mirumachi and Allan, 2007; Zeitoun and Mirumachi, 2008; Earle, Jägerskog et al., 2010; Zeitoun et al., 2011).

Furthermore, a critical approach to hydropolitics emerged in contrast to mainstream rationalist studies of water politics, to delve on underdeveloped aspects of transboundary water conflicts and cooperation. Sneddon and Fox (2006) sketched the outlines of a critical

that water wars are “absolute nonsense because this is not going to happen - at least not during the next 100 years” (Inter Press Service, 2006).

hydropolitics, to examine the ways in which discursive strategies influence interactions among basin riparians, identify nodes of water conflict (e.g., a large dam), and explore how images and representations of political actors shape particular geopolitical orders. Along a similar line, Warner and Zeitoun (2008) brought forward a new approach that mixes IR critical theory to transboundary water issues¹⁶ to understand political processes and power relations in international river basins. The aim of this new framework of analysis is to apply “critical and Realist IR theory to hydropolitics in a way that avoids ‘water wars’ or ‘water peace’ discourses and, by pointing at the layered nature of hegemonic struggles, opens up the scope to consenting and non-consenting victims of water deals between states” (Warner and Zeitoun, 2008: 809).

Based on the assumption that transboundary water management is a political process, and that the unit of analysis is not the watershed but the “problemshed” (Allan, 2001), the critical hydropolitics approach adopted by several scholars associated with the London Water Research Group¹⁷ is aimed at developing a more robust understanding of key political factors in transboundary water interactions. Overt and covert forms of power, discursive processes and social constructions are here used to bring a new perspective to the study of water relations.

Most of all, the main tenets of constructivism and the concepts of power and hegemony form the theoretical core of critical hydropolitics and also of this thesis, as it will be outlined in Chapter 2 that presents the analytical framework informing this research. However, before concluding this literature review and moving to the presentation of the two case studies, the following illustrates how scholars have linked large hydraulic infrastructures to the distribution and control of political power within the nation. While this area of study does not traditionally pertain to the hydropolitical scholarship, I argue that a connection between these two disciplines can offer useful and yet unexplored insights to the study of how state power is wielded in an international river basin.

¹⁶ Warner and Zeitoun (2008) articulated their article as a response to a paper in which Kathryn Furlong (2006) dismissed the IR approach to analyse transboundary water issues, as in her opinion it obfuscates many crucial factors of transboundary watercourses.

¹⁷ Based at King's College London and the University of East Anglia, the London Water Research Group refers to a global network of academics, researchers and professionals committed to the promotion of critical water research. As stated in the group's website (<http://lwrp.org/about-us.html>), active members of the group include Professor Tony Alan, Dr Dave Phillips, Dr Mark Zeitoun, Dr Jeroen Warner, Dr Ana Cascão, Dr Naho Mirumachi and Dr Mark Mulligan.

1.1.4. Hydraulic infrastructures and political power

Major dams¹⁸ are among the largest structures built by humans and are perhaps the most spectacular way to tame water resources. Apart from serving practical purposes (e.g. generating electricity, controlling water flows and allowing irrigated agriculture), dams are also powerful political symbols that can be used to build and reinforce national identities (Mitchell, 2002: 44). Massive dams not only physically alter the landscape, but also shape perceptions and ideas as they symbolize the might of the state that built them, often becoming a favourite of nation-builders around the world (McCully, 2001: 237).

The nexus between the construction of large hydraulic infrastructures and political power has long been studied, and in this regard the work of Karl August Wittfogel has become a classical entry point. In his seminal book *Oriental Despotism*, Wittfogel (1957) introduced the concepts of hydraulic society and hydraulic despotism, arguing that those who control water in arid or semi-arid regions also control political power. The so-called “hydraulic regimes” might increase their grip on power by building and managing hydraulic infrastructures such as dams and network of canals, which would allow bureaucrats to exert control over people and rivers. While Wittfogel’s study was originally interpreted as one that linked water management with authoritarian political regimes (both ancient ones, like Mesopotamia and the pre-Columbian societies, and modern ones like the USSR and China), Erik Swyngedouw (2006: 16) noted that the Wittfogelian perspective has also been used to understand power relationships in modern capitalist forms of development.

For instance, Donald Worster (1985) placed the control of water resources at the centre of the development of the arid West in the USA in the early 1900s, identifying a small group of technocrats from the Imperial Irrigation District (IID) that detained most of the political and social power. As Worster noted, the decisions taken by the IID appeared “so utterly rational, so perfectly wise, that ordinary citizens did not challenge them, did not feel confident enough in their own knowledge to question or oppose them. [...] Water had indeed made this desert bloom, and the crop was oligarchy” (Worster, 1985: 206). Also

¹⁸ The International Commission on Large Dams (ICOLD) defines a major dam as a dam with a height of 150 meters or more from the foundation, a reservoir storage capacity of at least 25 cubic kilometres and an electrical generation capacity of at least 1000 megawatts.

Marc Reisner examined water politics in the American West, tracing the story of William Mulholland and of other powerful engineers in 20th century Los Angeles¹⁹, that “tended to view themselves as a godlike class performing hydrologic miracles for grateful simpletons who were content to sit in the desert and raise fruit” (Reisner, 1993: 119).

Likewise, Swyngedouw (1999) investigated how ruling political elites can increase their influence and preserve social control through large hydraulic projects, in the so-called “hydraulic mission” to control nature and conquer the desert. Based on Wester (2009), the hydraulic mission can be defined as the belief that the state should develop hydraulic infrastructure to capture as much water as possible for human uses, since all water flowing to the ocean is considered wasted. Behind the hydraulic mission there is the hydrocracy, “a group of actors such as ministries or governmental organizations mandated to plan, design and implement various features of water resources management” (Mirumachi 2013, 8).

During the twentieth century, hydraulic missions were launched worldwide, and some of the largest and most iconic dam projects were realized around the world, becoming highly symbolic both within the nation and outside (Frey, 1993). Examples are the Marathon dam, hailed as the greatest achievement of Greece after the Parthenon (Kaika, 2006: 297), and the massive Hoover Dam in Nevada, that led US Secretary of the Interior Harold Ickes to declare that with its completion “pridefully, man acclaims his conquest of nature” (McCool, 2012: 23). Similarly, in 1954, at the inauguration of the high Bhakra dam, Prime Minister Jawahar Lal Nehru audaciously described dams as the “temples of modern India”²⁰ (Sharma, 1989). In Nasser’s Egypt, the gigantic Aswan High Dam, completed in 1971 with Soviet support, became “the centrepiece of postwar nation making” in a country in which “large dams offered a way to build not just irrigation and power systems, but nation-states in themselves” (Mitchell, 2002: 44-45). John Waterbury observed that as relations between Egypt and Britain deteriorated in the 1950s, “Nasser and his associates could no longer regard the dam as simply a big engineering project, but rather came to hold it up as the symbol of Egypt’s will to resist imperialist endeavors to destroy the revolution” (Waterbury, 1979: 108). If, on the one side, those who supported the Aswan High Dam

¹⁹ The struggle for power and the conflicts between different water users in California in the early 1900s (also known as California Water Wars) have also been narrated by Roman Polanski in his 1974 movie Chinatown.

²⁰ However only four years later, in 1958, Nehru seemed to have changed his opinion on the matter, deploring the quest for big dams as a “disease of gigantism” (D’Souza 2008, 112).

were treated as patriots, on the other side, those who criticized it were “thought of as subversive or even treasonous” (Waterbury, 1979: 117). Indian activist Arundhati Roy identified a similar correlation between patriotism and dams on her analysis of the Sardar Sarovar Dam project in India²¹, and McCully noted that critics of the planned Castanho Dam in Brazil were accused by the local governor Tasso Jereissati of using “wicked insinuations and unfounded and unpatriotic criticisms” (McCully, 2001: 264).

Therefore, having acknowledged that large dams can have an important political value, I argue that a critical approach to their study – one that recognizes both their performative and discursive impacts – can bring useful and unexplored insights to the analysis of transboundary water relations. This is because large dams also have a foreign dimension, as they often are at the origin of regional conflicts and controversies. If a dam is portrayed as a symbol of the nation, those who question it become the enemies of the nation. The hydrocracy can thus portray the construction of a dam against the will of a neighbouring country as a symbol of internal cohesion that incarnates the nation’s right to self-determination. This link between the symbolic meaning of dams and transboundary water relations appears to be relevant to the analysis of the two case studies adopted in this research, as it will be illustrated in the following paragraph.

1.2. Choice of the case studies

The two case studies selected for this research can be considered case studies within a case study, with the latter being the Aral Sea basin and the former being the Rogun dam in Tajikistan and the Kambarata dam in Kyrgyzstan. Therefore, while the main area of analysis is the Aral Sea basin in Central Asia and interstate relations among the upstream – (Tajikistan and Kyrgyzstan) and downstream (Kazakhstan, Turkmenistan and Uzbekistan) countries, the specific focus is on the political confrontation around the construction of these two major dams and its power dynamics.

The decision to focus on the issue of major dams rather than on other questions (such as the desiccation of the Aral Sea or water pollution of the Amu Darya or Syr Darya) comes from several considerations. First, water issues in Central Asia have traditionally been centred around water quantity rather than water quality, thus making the construction of

²¹ See for instance the 2002 documentary “Dam/age”, directed by A. Seth and produced by First Run/Icarus Films.

large dams (that can considerably impact on the water flow) particularly relevant. Secondly, the impact of major dams is such that they are equally important both at the national and at the regional level. Thirdly, it can be argued that the revitalisation of the two dam projects in the 2000s has become the key to understand Central Asian water politics, strongly influencing all matters related to the distribution and sharing of regional water resources²². At present, the resolution of regional water problems seems subordinated to the resolution of the ongoing dam dispute. Fourthly, the analysis of major dams in Central Asia allows touching upon a number of central issues in regional water politics, such as the revision of Soviet water allocation, sovereignty over natural resource and the assertion of national interests.

As for the choice of these two particular dams (see also Table 1), they were selected as they present a number of common features that make them comparable and particularly suitable to carry out a comprehensive study of power dynamics in the Aral Sea basin. In particular, both projects:

- i. are being built by the furthest upstream country of the river basin (Tajikistan in the Amu Darya river basin, and Kyrgyzstan in the Syr Darya river basin) and will have an impact on downstream countries (Uzbekistan and Turkmenistan in the Amu Darya river basin, Uzbekistan and Kazakhstan in the Syr Darya river basin);
- ii. are major dams that will create a massive water reservoir on top of a cascade system made of several downstream reservoirs;
- iii. are extremely costly and cannot be funded by national resources alone, and therefore, both proposing countries need to find external investors willing to participate in the project;
- iv. would generate large amounts of hydroelectricity in countries with significant energy deficits;
- v. would give to the upstream countries full control of the water flow, allowing them to use water as a strategic tool (for example by pressuring downstream riparian states to pay for water releases);

²² This consideration comes, among other things, from the author's professional experience gained working on high-level regional water negotiations for the United Nations Regional Centre for Preventive Diplomacy for Central Asia (UNRCCA) in Ashgabat, Turkmenistan, from January until December 2009.

- vi. are strongly opposed by downstream countries and in particular by Uzbekistan;
- vii. are highly politicized, and favouring or impeding their realization has become a matter of primary importance for both upstream Tajikistan and Kyrgyzstan, and to downstream Uzbekistan.

Table 1: The Rogun and Kambarata dams compared. Source: Schmidt, 2007; Tetra Tech, 2011.

	Rogun	Kambarata
Location	River Vakhsh, Tajikistan	River Naryn, Kyrgyzstan
River basin concerned	Amu Darya	Syr Darya
Basin riparians concerned	Tajikistan Afghanistan, Uzbekistan, Turkmenistan	Kyrgyzstan, Uzbekistan, Tajikistan, Kazakhstan
Estimated Cost (US\$ billion)	2.9	2 – 4.9*
Height (meters)	335	275
Water reservoir volume (km³)	13.8	4.65
Electricity generation (MW)	3.600	1900
Average annual performance (billion kWh)	13.1	5.1
Genesis of the project (period)	1960s	1970s
Beginning of construction works	1982	1986

*While the cost estimated by the Kyrgyz government is US\$ 2 billion, a report prepared by the consultant Tetra Tech ES Inc. for USAID, the United States Agency for International Development, assessed the cost to amount to US\$ 4.9 billion (Tetra Tech, 2011: 64).

What is perhaps the most relevant aspect is that if these dams are completed they would change the status-quo in regional water management. Each of them could be the first major dam ever finalized in Central Asia since the collapse of the Soviet Union, thus reversing a situation in which the upstream countries of the Aral Sea basin have not been able to tap their significant hydroelectric potential.

Moreover, the dams are extremely controversial, since there seems to be a fundamental disagreement on the way government officials in the upstream and downstream countries frame the management of shared water resources. Framing of environmental issues reveals differences in how stakeholders form interpretations of what is at stake and what should be done (Dewulf et al., 2005), implying that the dominant framing will bring highly differential benefits to the actors involved. For instance, as Brugnach et al. observed (2008), a water shortage situation can be framed by one actor as a problem of “insufficient water supply”, and by another as one of “excessive water consumption”. The former will focus on the amount of water available, and will possibly oppose the realisation of infrastructures that might disrupt the water flow (e.g., a dam), while the latter is more likely to suggest a change in the water use (e.g., switching to a less water-intensive crop). The dominant framing forms the “sanctioned discourse”, that, as it was defined by Anthony Turton, “is the prevailing or dominant discourse that has been legitimised by the discursive elite within the water sector at any one moment in time. It represents what may be said, who may say it and how it may be interpreted, thereby leading to the creation of a dominant belief system or paradigm” (Turton, 2002: 39).

For what concerns the Aral Sea basin, while regional hegemony is disputed between Uzbekistan and Kazakhstan (Deyermond, 2009), regional hydro-hegemony (i.e. hegemony over water politics) is detained by Uzbekistan. This is because the Uzbek government has successfully managed to impose its sanctioned discourse on regional water issues keeping its advantageous Soviet water allocation unchanged, effectively thwarting the hydropower ambitions of upstream countries, thus continuing to practice the water-intensive cotton monoculture whose income is needed by the Uzbek political elites to support the existing system of social, political, and economic control (Weinthal, 2006).

Conversely, it is manifest that both upstream countries, Kyrgyzstan and Tajikistan, are not hydro nor regional hegemony, being the economically and politically weaker countries among the five Central Asian republics. However, through the construction of the Rogun and Kambarata dams the two countries are challenging a status-quo in which they have not been able to take advantage of their upstream position and exploit their hydroelectric potential. If completed, the two dams could give the Tajik and Kyrgyz governments almost

total control of the regions' water resources, thus significantly challenging the current power setting.

1.3. Aim of the thesis and research questions

This thesis takes a critical hydropolitical approach and applies it to interstate relations in the Aral Sea basin in Central Asia. The aim of this thesis is to analyse and understand the role of state power in transboundary water relations, and to provide an in-depth analysis of the evolution of interstate relations in Central Asia in the field of water in the period 1991-2011²³. The study looks at the various forms of overt and covert power that shape interstate relations and at the way hegemonic and counter hegemonic measures are put in place in an international river basin.

The main research question that the thesis aims to answer is:

How state power is wielded in transboundary water relations?

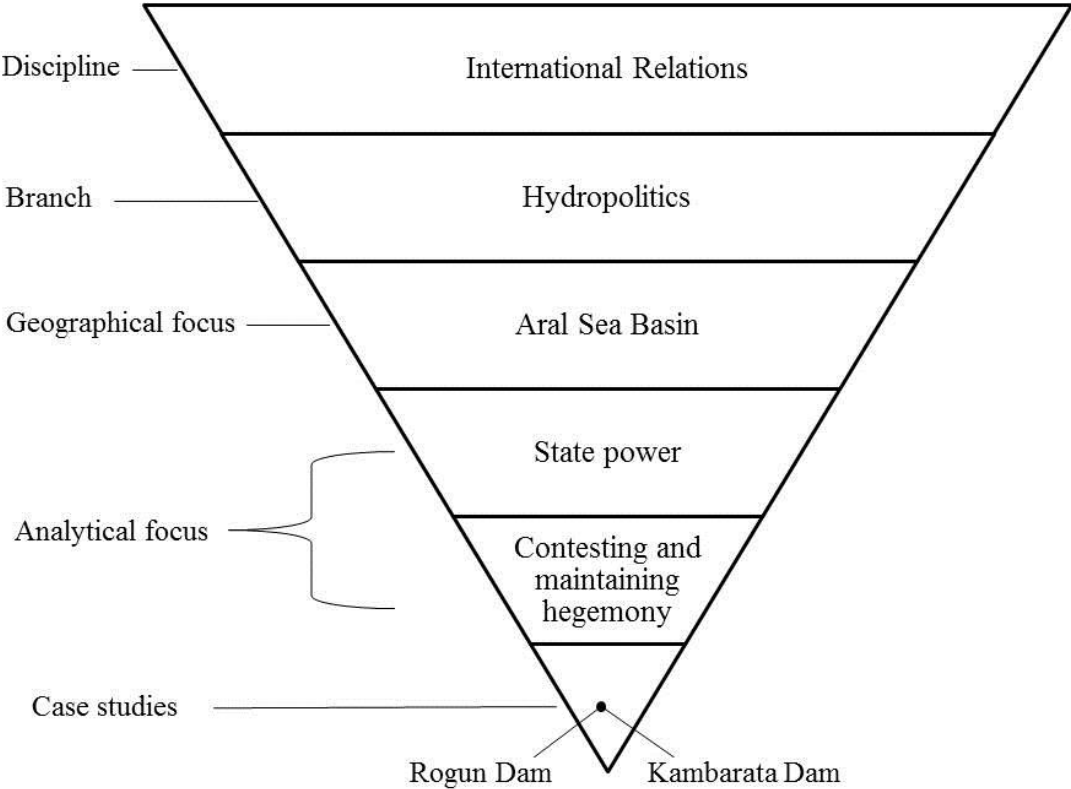
Two sub-questions, that will help answering the main question, will also be addressed. Namely, i) *how did water relations in Central Asia evolve in the period 1991-2011?*, and ii) *which counter-hegemonic and hegemonic measures have been put in place to favour and obstruct the construction of the Rogun and Kambarata dams in Tajikistan and Kyrgyzstan?*

The overarching hypothesis driving this study is that the intimate correlation between the concepts of power and hegemony can offer key insights to the analysis and understanding of transboundary water relations. Discursive and social constructions influence interactions among basin riparians, and help explaining the conflictive or cooperative nature of transboundary water relations. As it will be thoroughly discussed in Chapter 2, power is seen as a multifaceted concept, one that can be defined as the ability, or capacity, of one actor to get the desired outcome through coercive, bargaining and ideational/discursive means. The success in getting the desired outcome leads to hegemony, that from a critical neo-Gramscian perspective can be defined as an expression of widely-based consent supported by material resources and institutions.

²³ These two dates, 1991 and 2011, represent respectively the year in which the Central Asian countries gained independence and the year in which this doctoral research started. Most of the data were collected in 2012, and so 2011 seemed the most appropriate cut-off point for this analysis.

While, on the one hand, the analytical focus is placed on state power, on the other hand, hegemonic and counter-hegemonic tactics represent the ways in which power is wielded and observed. Therefore, based on the assumption that the construction of the Rogun and Kambarata dams would irreversibly change the status-quo of water politics in the Aral Sea basin, the ways in which these projects are being supported and opposed can be categorised as counter-hegemonic and hegemonic measures, meaning respectively measures that are put in place to contest and maintain a certain hegemonic order.

Figure 1: Narrowing down the scope of the research



Within this analytical framework, three states are thereby examined in particular detail, the hegemonised ones, Tajikistan and Kyrgyzstan, and the hegemon, Uzbekistan. Although more in general, events in the rest of the region are discussed and illustrated, since understanding and explicating the evolution of water relations in Central Asia seems a

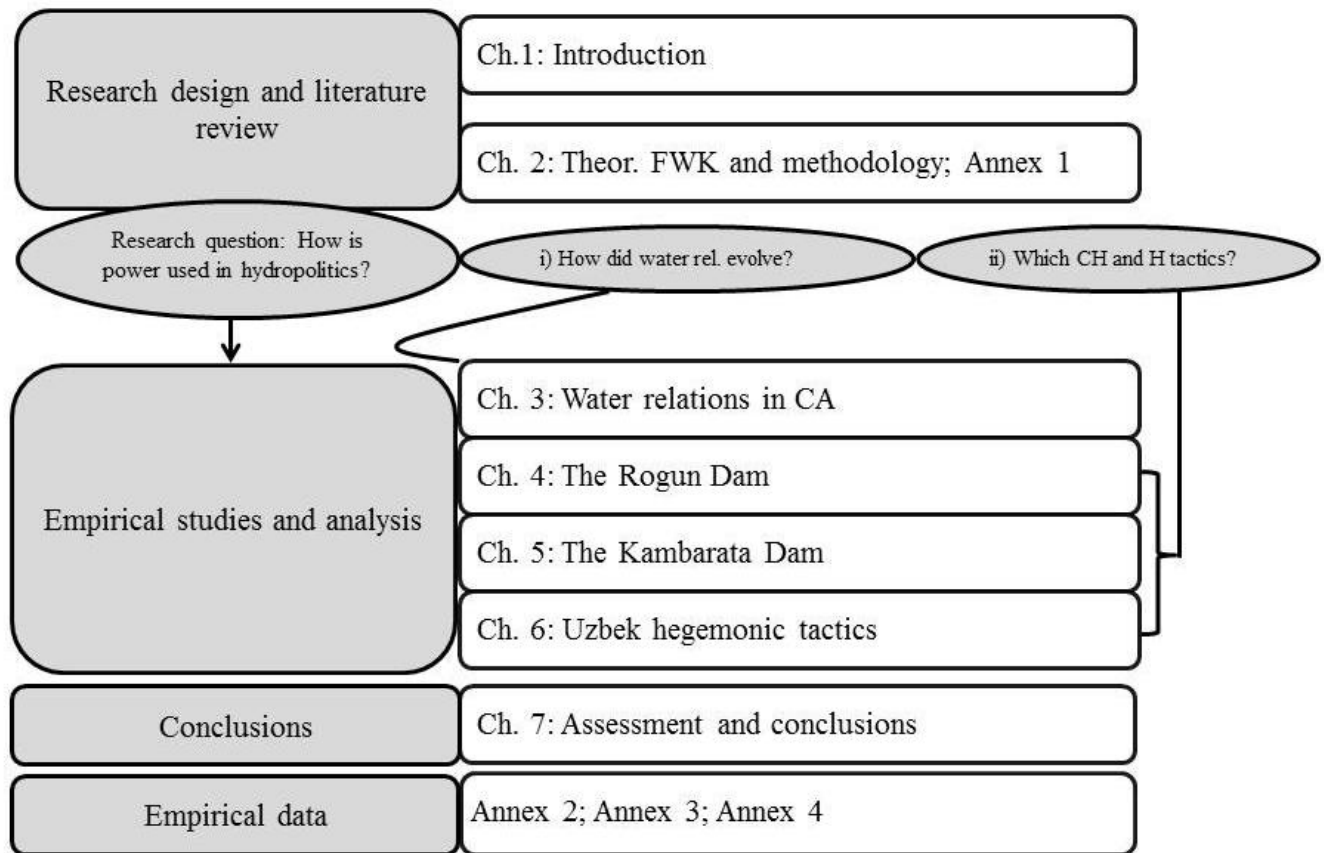
necessary step to carry out a comprehensive analysis of power dynamics in an international river basin.

Narrowing down the scope of the research (as shown in Figure 1), the general focus of this study is placed on hydro politics (or the politics of international waters), a branch of IR. Within this disciplinary area, the basin of the Aral Sea is used as a background and as a platform to discuss the two case studies, which can be considered the empirical foundation for a study that essentially focuses on the analysis of power and hegemony. The ways in which this research has been designed to answer its research questions is outlined in the following section.

1.4. Outline of the dissertation

As it was mentioned, this study aims to explore how power is wielded in an international river basin and what measures states put in place to contest and maintain hegemony. To carry out such analysis, the thesis has been divided into seven chapters and four annexes (see Figure 2).

Figure 2: Schematic overview of the thesis structure and of its research questions.



This first Chapter introduces the research, its objectives and its research questions. It also provides a literature review of the academic debate on hydropolitics, outlining the two main branches of the discipline, the Neo-Malthusian (or neorealist) and the Cornucopian (or neoliberal). It then briefly sketches the main traits of a critical approach to hydropolitics, and links it with studies exploring the connection between large hydraulic infrastructures and the distribution and control of political power. It finally illustrates the originality of this research and its main contributions to IR literature and to Central Asian studies.

Chapter 2 defines the theoretical, analytical and methodological framework used in this study. After an introduction on critical hydropolitics, the key concept of power is reviewed, focusing on the different facets and interpretations of the term that emerged from multiple disciplinary angles. Three dimensions of power are identified and included in the two macro categories of hard and soft power, that are then connected with the concept of

hegemony and its two main approaches in IR theory. Subsequently, the analytical tools adopted in this research – the “circle of hydro-hegemony” (a conceptual redefinition of the framework of hydro-hegemony) (Zeitoun and Warner, 2006) and the TWINS matrix (Mirumachi, 2007; 2010) – are presented, explaining how they help addressing the research questions and describing how data were collected and analysed.

Following these two introductory and explanatory chapters, the empirical analysis begins in Chapter 3, which serves as a background to introduce water relations in Central Asia and the two case studies, and to answer the first sub-question of this research. The chapter is organised in three sections. Initially, it provides some key definitions and delineates the main principles of international water law. The second section introduces the Aral Sea basin and the ways in which water has been perceived by the Central Asian peoples and managed by the Soviet Union. The third section outlines the evolution of interstate water relations in Central Asia, providing a general analysis of coexisting conflict and cooperation and identifying three stages in regional water relations. The focus is finally narrowed down to examine bilateral relations between Tajikistan and Uzbekistan, and Kyrgyzstan and Uzbekistan.

Chapters 4 and 5 present and analyse the two case studies, respectively the Rogun dam in Tajikistan and the Kambarata dam in Kyrgyzstan. Both chapters begin with an overview of the dam and of its objective impact at the national and regional level. Successively, the dispute around the dams is used to examine how state power is wielded in international transboundary water relations, and to identify and categorise the various counter-hegemonic tactics that Tajikistan and Kyrgyzstan have put in place to favour the realisation of the projects and fulfil their hydraulic mission.

Chapter 6 concludes the empirical analysis, presenting and examining Uzbek hegemonic tactics, which offer an alternative and opposing perspective with respect to that offered by the Tajik and the Kyrgyz governments. As the Uzbek government tends to treat the Rogun and Kambarata dams as a nearly unique entity, hegemonic tactics aimed at opposing the realisation of both projects and at maintaining the status-quo unchanged are merged and discussed in a single chapter.

Chapter 7 concludes, assessing and comparing the two case studies and their impact on regional water relations. The research questions are reviewed and answered, and

successively an analytical summary is provided. The chapter ends illustrating the contributions of this study to the hydropolitical debate and identifying areas for future research.

Four Annexes complete this thesis. Annex 1 delves into some methodological aspects that were deliberately skipped to make Chapter 2 more concise. The rationale and the methods behind the creation of the three chronologies are explained in greater detail, along with speech acts theory and some notions of discourse analysis. Finally, Annex 2, 3, and 4 contain the three chronologies in their entirety.

1.5. Originality and scientific value of the research

The topic of this research is narrow and at the same time broad. Narrow, because it looks specifically at how states employ power in transboundary water relations. Broad, because it touches upon at least two different disciplinary fields and one geographical area of study. Such approach originated from the decision to adopt a critical hydropolitics perspective to examine water politics in the Aral Sea basin. This implies delving on aspects that relate to political geography, such as geographical configurations, transboundary issues and water distribution and use, but also to critical IR theory, such as power analysis, discursive and social constructions. Insights from Central Asian Studies, both at the governmental level (concerning the nature and structure of national political systems) and at the societal level (regarding among other things ideologies and political cultures) have also informed this research and offered precious understandings of regional hydropolitics.

For instance, the fact that with independence the Central Asian governments had to re-evaluate or reconstruct their pasts (Roy, 2000), in what seems a continuous quest for legitimacy (Mellon, 2010; Matveeva, 2009) aimed at maintaining power (Cummings, 2002) with the support of symbols and images (Cummings, 2010), appears relevant to an analysis of power and hegemony in transboundary water relations. Likewise, the review of literature exploring how the construction of large dams can be linked to the distribution and control of political power within the nation, made a valuable contribution to the examination of the two case studies.

The research brings a contribution to knowledge at several levels. As Grix noted, a “substantial contribution to knowledge” implies that “you must have produced original

research on a given topic and embedded it firmly in the ‘received wisdom’ of a particular field” (Grix, 2001: 108). The originality of this research lies in its interdisciplinary approach to water politics in Central Asia. There are, to the author's knowledge, no studies that carried out a comprehensive analysis of transboundary water relations in Central Asia using insights from critical IR theory and placing the focus on the issue of large dams. The only contributions on power dynamics in the Aral Sea basin are an article on the journal “Water Policy” written by Kay Wegerich (2008), which examines hydro-hegemony in the Amu Darya basin, and a partial analysis of water relations using the TWINS matrix carried out by Sojamo (2008).

At a conceptual level, this research brings to the fore an original theoretical contribution, as it revisits the analytical framework of hydro-hegemony, proposing a redesign of the structure of hydro-hegemony, which has been named the “circle of hydro-hegemony”. Furthermore, besides a few contributions (see paragraph 2.5.1), little attention has been paid to how the hegemonised attempts to reverse the status-quo in an international river basin. Hence, this research will also provide an original contribution to the literature on hydropolitics in Central Asia, offering fresh theoretical interpretations to the subjects of power and counter-hegemony in the Aral Sea basin.

A further value is added by the three timelines expressly created for the research (see Annex 2, 3, and 4). The aim is to publish them after discussing this thesis, and to make them widely available for research and other suitable uses. They represent, at the time of writing, the most detailed reference-supported collection of events of this kind for the Central Asian region in the period 1991-2011.

Chapter 2. Theoretical framework and methodology

If you beat your head against the wall, it is your head that breaks and not the wall.

Antonio Gramsci, *Letters from Prison*, 1930

This chapter delineates the theoretical, analytical and methodological framework used in this study. The first section goes back to critical hydropolitics and illustrates more in detail a constructivist approach to the discipline. It then outlines the notions of power and hegemony and how these two are correlated. The key insights of the framework of hydro-hegemony (FHH, Zeitoun and Warner, 2006), namely the acknowledgement of the role that power and power asymmetries play in interstate water relations are used to answer the main research question, *how state power is wielded in transboundary water relations?*, and one of the two sub-questions, *which counter-hegemonic and hegemonic measures have been put in place to favour and obstruct the construction of the Rogun and Kambarata dams in Tajikistan and Kyrgyzstan?*. The remaining sub-question, *how did water relations in Central Asia evolve in the period 1991-2011?*, which is considered propaedeutic to approach the two former questions, is answered with the support of a hermeneutic tool, the TWINS matrix (Mirumachi, 2007; 2010). The final section clarifies the operationalization of the research, explaining how data were collected and analysed.

2.1. Constructivism

Initially associated with the work of Nicholas Onuf (1989), constructivism is a theoretical approach to social sciences that was developed after the end of the cold war as an alternative to the two dominant paradigms, the realist and the liberal. According to constructivism, “people make society, and society makes people” (Onuf, 1998: 59). Social

relations make or construct people into what they are and people construct the world what it is. Consequently, countries are social constructions, and order between societies is socially constructed, and not merely determined by objective material conditions. Although many strands of constructivism can be identified due to a significant growth of constructivist literature during the 1990s, an overall distinction can be made between modern (conventional) and postmodern (critical) constructivism. On the one hand, as Thierry Balzacq (2009) explains, postmodern constructivism – which is sceptical towards the core positivist notions of truth, objectivity and reason – aims to study world politics stressing how the social discourse shapes and gives meaning to actions. The focus of postmodern constructivism is to understand, not to explain. On the other hand, modern constructivism, which does not reject positivist conventions, “while expecting to uncover differences, identities, and multiple understandings, still assumes that it can specify a set of conditions under which one can expect to see one identity or another” (Hopf, 1998: 183). Nevertheless, conventional and critical constructivism share the same theoretical fundamentals, as both wants to study how human agency – being agency the ability of actors to act and think independently – and social constructions produce identities and institutions.

According to Wendt (1999: 1), a modernist systemic constructivist²⁴, the two basic tenets of constructivism are: “1) that the structures of human association are determined primarily by shared ideas rather than material forces and 2) that the identities and interests of purposive actors are constructed by these shared ideas rather than given by nature”. Thus, Wendt outlines a reflexive relationship, where the actors influence the structures and the structures influence the actors. Agency and structures are mutually constituted through intersubjective understandings: agency influences structural continuities and processes of change and it is influenced by the social spatial and historical context (Klotz and Lynch, 2007: 3-12). For constructivists, normative or ideational structures, or in other words, norms and ideas, are just as important as material structures, such as military and economic power, and therefore “systems of shared ideas, beliefs and values also have structural characteristics and exert a powerful influence on social and political action (Reus-Smit, 2001: 216-217).

²⁴ Following the neo-realist Waltzian third-image level of analysis, systemic constructivism concentrates on how States relate to one another in the international domain. (Reus-Smit, 2001: 219)

Realities and identities in constructivism are created through speech acts, which are “the most important way that we go about making the world what it is” (Onuf, 1998, 59). Speech act theory was originally developed by a philosopher of language, Austin (1975), in his seminal book *How to do things with words*. The main assumption behind speech act theory is that different uses of language, by their utterance, perform an action. If I say to a friend that “I will buy a house”, or “I do” during a marriage ceremony, I am promising that I will do something by just saying it. This is a *performative* utterance, one through which I am performing an act. Austin identified five categories of performative acts (1975: 151-2): *verdictives* (giving a verdict or an appraisal), *exercitives* (the exercising of powers, rights and influence), *commissives* (committing to do something by declaring or announcing it), *behabitives* (relating with social behaviours, e.g. apologizing, congratulating or cursing), and *expositive* (they put an utterance in a context, as in “I reply”, “I assume” or “I argue”). Further elaborating on this, Searle (1975) introduced the following categories of speech acts: *assertive*, *directive*, *commissive*, *expressive* and *declarations*. Subsequently, Nicholas Onuf (1998) analysed speech acts from a constructivist point of view, considering them as acts that perform an action and establish a relationship when they encounter a response or a reaction from the audience towards which they were directed. Onuf (1998: 66) reduced the categories of speech acts to the following three: 1) *assertive*, through which something is asserted, as in “our country is experiencing a difficult situation”; 2) *directive*, through which something is demanded, as in “we need more water”; and 3) *commissive*, through which something is promised, as in “I will pay my debts”.

2.1.1. Constructivism and hydropolitics

Chapter 1 illustrated that just like constructivism was developed as an alternative to the two dominant paradigms in IR, a critical constructivist approach to hydropolitics emerged in contrast to mainstream rationalist studies of water politics. This is the case also for this study, which adopts a critical hydropolitics approach to examine hydropolitics in Central Asia. This is partially due to the dissatisfaction with the two mainstream theories of the discipline, neo-realism and neo-liberalism (see Chapter 1), that tend to see water whether as a source of conflict or cooperation, overlooking the fact that conflict and cooperation can indeed coexist. Most importantly, neither of the two “neo” approaches can provide a

plausible justification to the diversity of water water-related interstate relations around the globe (Julien, 2012: 45), and explain, for instance, why basins with similar levels of water scarcity or similar geographical configurations may have very different levels of conflict and cooperation. Le Billion observes that the two mainstream schools of thought provide a somewhat deterministic explanation of conflictive and cooperative relations over water, one that “fail to take into account the socially constructed nature of resources” (Le Billion, 2001: 565). As Julien explicates (2010: 10, note 17), it took a constructivist study (Kalpakian, 2004), to demonstrate that the Indo-Pakistani wars were caused by issues related to identity and not to water scarcity, as previous mainstream hydropolitics had hypothesized. To the same extent, several studies (Smith, 1995: 356; Wegerich; 2003: 256; IWMI, 1998) have noted that water in Central Asia is indeed abundant²⁵ and not scarce as it is often stated (recently: US Senate, 2011), thus supporting an approach that goes beyond mainstream hydropolitical analysis, to look at other factors beyond scarcity to understand regional water relations, as “hydropolitics is what societies make of it” (Julien, 2012).

Water is a multidimensional resource that besides its strategic and economic dimension, bears also a strong social, environmental and cultural significance (Rahaman & Varis: 2005). It thus seems simplistic to consider water only as a source of conflict or cooperation. A constructivist approach to hydropolitics allows acknowledging the importance of the strategic and economic dimensions of water, while also trying to understand how the social constructions of water influence interstate relations.

Recognizing the coexistence of structural conflict and cooperation, many scholars associated with the London Water Research Group have taken a constructivist approach to hydropolitics (Warner and Zeitoun, 2008: 807), studying how formally equal basin riparians may be in fact caught up in control relations, thus acknowledging the role that asymmetries of riparian power play in influencing transboundary water relations. If, on the one hand, the absence of war does not mean the absence of conflict or the presence of peace

²⁵ Water in Central Asia is certainly unevenly distributed and used inefficiently, but overall the region cannot be considered as water scarce. The Aral Sea basin has a total renewable water flow of 115.60 km³ per year (http://www.fao.org/nr/water/aquastat/countries_regions/fussr/index8.stm), on which around 64 million people rely. For instance, there is a striking difference between the Aral Sea basin and the Nile river basin – generally considered water scarce – which has a total renewable water flow of 80 km³ per year to sustain more than 200 million people (<http://www.nilebasin.org/newsite/attachments/article/145/5%20-%20Summary%20-%20The%20State%20of%20the%20Nile%20River%20Basin%202012.pdf>). For more information on water distribution in the Aral Sea basin see Chapter 3.

(Zeitoun and Warner, 2008: 807), on the other hand, the signing of a treaty does not mean that cooperation is actually happening (Zeitoun and Mirumachi, 2008). A critical hydropolitics approach is aimed at developing a deeper understanding of key political factors in transboundary water interactions, recognizing the relevance of overt and covert forms of power, discursive processes and social constructions to the study of water relations.

It is based on these assumptions – and taking inspiration from the Copenhagen concept of the construction of security – that the two frameworks employed in this study, TWINS and the FHH, were conceived. Both frameworks acknowledge the importance of the role of power and power asymmetries in international transboundary water relations, and both also utilise the constructivist notion of speech acts. Before reviewing the FHH and TWINS in detail and explaining how they will be used in this research, the next section illustrates the two central concepts of this study, power and hegemony.

2.2. Power

Power is an essentially contested concept in politics, one that can be given different interpretations and meanings (Lukes 1974; Berenskoetter, 2007), and its appropriate definition remains a controversial matter (Waltz, 1986: 333). The first modern analysis of political power can be traced back to the work of Niccolò Machiavelli (*The Prince*, 1513) and Thomas Hobbes (*Leviathan*, 1651). Machiavelli's realist and pessimistic ideas on the separation of ethics and politics, created the image of a Prince that would rather be feared than loved, that would often use military force, violence and cunning to guarantee the prosperity of his kingdom and to possibly get total power. According to Machiavelli, power is not to be considered as a means to an end but as the end itself, thus making of *The Prince* an handbook on how power can be acquired, retained and expanded. Conversely, in Hobbes' view power is linked to sovereignty and consent. State power is centralised and absolute but originates from a contract through which people – which are egoistic and violent – voluntarily confer their power to a man or to an assembly of men, that will act in their interest guaranteeing peace and stability. Two centuries later, Karl Marx (*The Communist Manifesto*, 1848), who to a certain extent can be associated to the realist thought of Machiavelli and Hobbes, theorised a political system in which political power is

based on economic power, or in other terms, on the possession of the means of production, through which a dominant social class would obtain its supremacy.

The end of the Second World War and the progress of political science brought an increasing interest to the study of power in the social sciences. In particular, Max Weber's *Theory of Social and Economic Organization* (1947) had a strong impact on future theorisations on power. According to Weber, power is the capacity of one actor to realize its will in a social relationship, despite the opposition of other actors. The concept of power is therefore associated to that of domination. In Weber's view, political power is not based on social and economic factors but on three different sources of legitimation: charismatic authority (of a particular leader or of a certain institution, as in the case of dictatorial regimes during the last century); traditional authority (based on tradition and longevity, typical of pre-modern societies); and rational-legal authority (typical of modern societies and based on the belief that rationally established rules are legal). Following up on Weber's ideas, Robert Dahl, who implicitly considered power as a relation among people from a behavioural science perspective, defined it as the ability of A "to get B to do something that B would not otherwise do"²⁶ (Dahl, 1957: 203). In his study of power dynamics in the city of New Haven (1961), Dahl noted how political power in the United States is pluralistic, being distributed among a number of competing groups and not to a single ruling-elite, as it was argued for instance by American sociologists Floyd Hunter (1953) and Charles Wright Mills (1956).

2.2.1. Three dimensions of power

Peter Bachrach and Morton Baratz (1962) partially agreed with Dahl in his critique to elitists, but further expanded the concept of power and developed a new theoretical model to include "what does not happen" in decision-making processes. They argued that none of the two main notions of power given by sociologists and political scientists of the time – which respectively saw power as highly centralised (elitist) and widely diffused (pluralist) – provided the "whole truth of the matter" (Bachrach and Baratz, 1962: 947), and presented their central thesis of the two faces of power. The first face of power, or overt, is related

²⁶ Dahl brings the example of a professor that threatens to fail a student if he doesn't read a particular book. In this case, the amount of power that the professor exerts can be calculated as the difference between the chance that the student would read the book before and after receiving the threat.

with Dahl's idea of A imposing its will to B, and is directly observable in the decision making process, where a group makes decisions that directly affect another group. However, they observed that:

Of course power is exercised when A participates in the making of decisions that affect B. But power is also exercised when A devotes his energies to creating or reinforcing social and political values and institutional practices that limit the scope of the political process to public consideration of only those issues which are comparatively innocuous to A. To the extent that A succeeds in doing this, B is prevented, for all practical purposes, from bringing to the fore any issues that might in their resolution be seriously detrimental to A's set of preferences? (Bachrach and Baratz, 1962: 948)

This introduces the second face of power, which involves the dynamics of the non-decision making process, and resides in the ability to create and reinforce "barriers to the public airing of policy conflicts" (Bachrach and Baratz, 1962: 949). Otherwise stated, the second dimension of power consists in the use of influence to limit the breadth of a discussion and to avoid conflicts from even being brought up to the political forum. Just because something did not happen, it doesn't mean that nothing happened.

Using as a starting point the work carried out by Dahl and by Bachrach and Baratz, Steven Lukes (1974, 2005b) further developed the study of power. According to Lukes, the two-dimensional view of power is inadequate as it relies on the supposition that power – when associated with conflict – can actually be observed. Moreover, previous interpretations of power did not consider the ability of an actor to influence the norms and values accepted by others. For instance, "A may exercise power over B by getting him to do what he does not want to do, but he also exercises power over him by influencing, shaping or determining his very wants" (Lukes, 2005b: 27). Since power can be hidden and not always visible, Lukes ideated a theoretical framework with three dimensions of power. The first, overt or hard dimension of power, is similar to Dahl's idea of power, and it is represented by the material capacity of A having B doing something against his will. The second dimension of power is less visible, covert, and refers to Bachrach and Baratz's second face of power: it is the ability to control the political agenda and to create barriers that would impede certain issues to be discussed. But the original contribution that Lukes brings to the debate is the third dimension of power, which he considers as the most effective among the three. This third dimension, power through domination, is hidden and

goes beyond the domains of decision-making and setting of the political agenda, to encompass the area in which the preferences and perceptions of others are formed and shaped. As Lukes put it:

A may exercise power over B by getting him to do what he does not want to do, but he also exercises power over him by influencing, shaping or determining his very wants. Indeed, is it not the supreme exercise of power to get another or others to have the desires you want them to have - that is, to secure their compliance by controlling their thoughts and desires? (Lukes, 1974: 23)

This is the ideological dimension of power, which can be defined as power over ideas or ideational, inspired by the Gramscian concept of hegemony (see paragraph 2.3) to explain how the powerful secures the willing compliance of those they dominate (Lukes, 2005b: 12). Subsequently, in the second edition of his book published in 2005, Lukes included two new chapters that reveal the influence of two French thinkers on power, Michel Foucault and Pierre Bourdieu.

Foucault's vision of domination framed in *Discipline and Punish*, is seen by Lukes as helpful in understanding how domination can be secured through acquiescence, as well as Foucault's ideas on the link between power and knowledge and on power as a productive force. In the *History of Sexuality* (1998), Foucault introduced the popular concept of power/knowledge, to explain how power is formed by accepted forms of knowledge and truths. Power is ubiquitous, and it cannot be wielded but it is rather part of discourses. Power must be understood as the multiplicity of force relations within the context in which it operates. According to Foucault, "Power is everywhere; not because it embraces everything, but because it comes from everywhere....power is not an institution, and not a structure; neither is it a certain strength we are endowed with; it is the name that one attributes to a complex strategical situation in a particular society" (Foucault, 1998: 93). This notwithstanding, Lukes considered the work of Foucault as too radical and misleading.

For what concerns the work of Pierre Bourdieu, Lukes used his ideas on symbolic power to examine how power as domination is enhanced by its normalization, from the moment that unequal and arbitrary conditions may appear to actors as fair and normal (Swartz, 2007). As a result of his analysis, Lukes finally defined an actor's power as "his ability to

avoid or resist performing positive actions” (Lukes, 2005a: 480), bringing the example of how the US under the Bush Administration showed its power by not performing certain actions, such as ratifying the Kyoto protocols or joining the International Criminal Court.

In relation with the work of Lukes and Foucault, and therefore with the connection between knowledge, ideas and power, it is worth noting that also English scholar Susan Strange (1994) recognised the existence of a third dimension of power, which originates in the “knowledge structure”. This third level of power, is the level at which power is exercised by the strong over the weak in the realm of ideas, to the extent that the weak “believe that the value-judgments of the strong really are the universally right and true ones” (Strange, 1994: 176). In her study of power relations in the field of finance, Strange made an interesting distinction between structural power and relational power. She noted how in the postwar period, the United States have used their structural power “to extend or restrict the range of options open to others” (Strange, 1990: 259), while Japan have used its relational power thanks to its global position as a major creditor and aid donor. If, on the one hand, relational power is clearly seen by Strange as “the ability of A to get B by coercion or persuasion to do what B would not otherwise do” (Strange, 1989: 145), on the other hand, the definition of structural power is less straightforward. Structural power, which has four dimensions – security, production, finance and knowledge – is eventually defined as:

The power to shape and determine the structures of the global political economy within which other states, their political institutions, their economic enterprises and (not least) their scientists and other professional people have to operate. [...] Structural power in short confers the power to decide how things shall be done, the power to shape frameworks within which states relate to each other, relate to people, or relate to corporate enterprises. (Strange, 1998: 24-25)

It seems then that structural power, seen as the ability to shape and influence relational frameworks, can be associated with Lukes’ ideational power and the Gramscian notion of hegemony.

In an attempt to identify conditions that might lead to hegemony, Gill and Law (1988) drew from the work of Lukes to identify three dimensions of power. If the first two dimensions (open or overt and covert power) are in line with those already observed in this analysis, it is with the third, structural power – which derives from Lukes’ third dimension

– that they brought a fresh contribution to the debate. According to Gill and Law, structural power is the “definite attraction and limitation systems with the physical and normative aspects to shape the relations of parties” (Gill and Law, 1988: 74). This dimension of power encompasses both material and normative aspects, that work together in the creation of a system of incentives and constraints.

2.2.2. From hard to soft power

What emerges from this overview is that power is not a single entity but it represents a variety of concepts and ideas. One aspect nevertheless appears clear. As Haugaard and Clegg noted, “power as domination, which is linked to (the capacity for) violent agency, is the dominant perception of power in everyday speech [...]. However, if we look to the academic social science literature, increasingly the conception of power as essentially grounded in coercion represents a minority view” (Haugaard and Clegg, 2009: 3). Thus, it seems that the focus has moved from “hard” to “soft” power, the first being visible and concrete, and the latter being hidden and more sophisticated. On the one hand, hard power corresponds to Dahl’s definition of power, or to Lukes’ first dimension, and is the ability to coerce, which derives from a country’s military, economic and technological might and, especially in hydropolitics, from a country’s geographical position, (i.e. being upstream or downstream). On the other hand, soft power, as it was originally defined by Joseph Nye:

Is the ability to get what you want through attraction rather than coercion or payments. When you can get others to want what you want, you do not have to spend as much on sticks and carrots to move them in your direction. Soft power arises from the attractiveness of a country's culture, political ideals, and policies. When our policies are seen as legitimate in the eyes of others, our soft power is enhanced. (Nye, 2004: 256)

A few years later, Nye added to his analysis a new form of power, “smart power”, which he defined as “the ability to combine hard and soft power into a successful strategy” (Nye, 2007). Nye’s concept of soft power can here be revised and used as a concept to represent the second and third dimensions of power analysed previously, as it proves efficient in encapsulating power in its more abstract dimension, especially if compared with hard power. Moreover, Nye’s soft power is partly corresponding to Bachrach and Baratz second face of power. Thus, based on the analysis of power carried out so far, it is possible to

attempt an initial schematization (Figure 3) of the different dimensions (or faces) of power observed, that will be subsequently adapted to the more specific application of the concept of power to water relations.

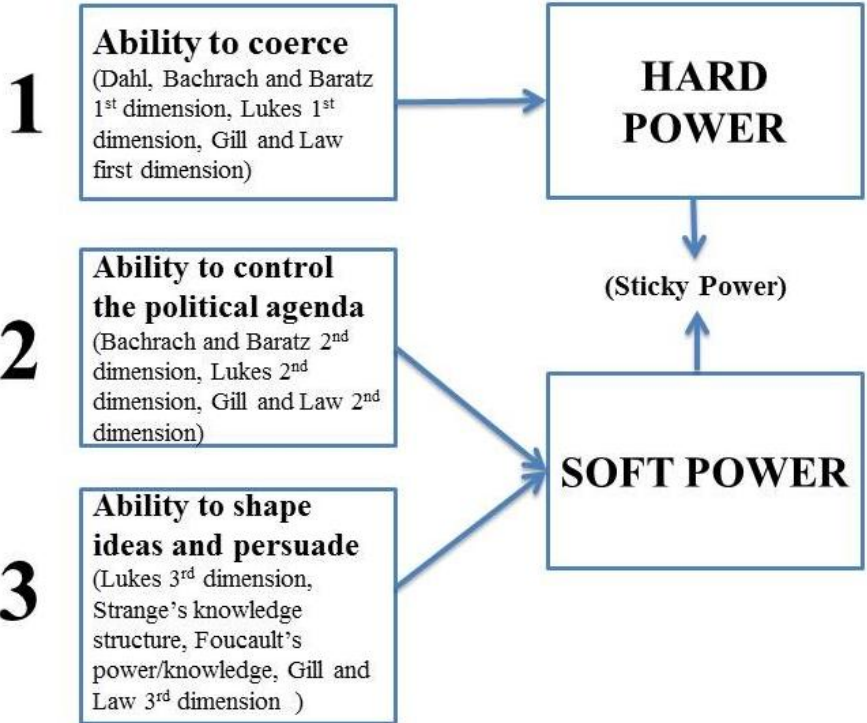


Figure 3: Schematic representation of the three dimensions of power (source: Author).

As it was observed, defining power in politics can be challenging, as it is a concept that can be associated to different interpretations and meanings, based on different perspectives and epistemologies, and to this day, there is not a universally accepted definition of power. Jonathan Gaventa observed that “power is often assumed, rather than defined or addressed or used in a coherent manner” (Gaventa, 2003: 12).

Nevertheless, for the purpose of this study, power needs to be somehow defined, or at least the definition needs to be narrowed from the many available in the literature. Without aspirations of being definitive or absolute, the following working definition serves to frame the concept of power within this research. Based on the assumption that power is indeed a multifaceted concept, power is here seen as the ability, or capacity, of one actor to get the desired outcome through coercive, bargaining and ideational/discursive means. These three

aspects are intimately correlated and overlap with the Gramscian definition of hegemony based on force and consent, as it will be shown in the next paragraph.

2.3. Hegemony

The term hegemony (from Greek *hēgemonia*, “to lead”), defined by the Oxford English Dictionary as “leadership or dominance, especially by one state or social group over others”, originally indicated the predominance of a city state over another in ancient Greece. In modern times, however, the revamp and first modern definition of the term hegemony can be attributed to the Italian philosopher Vincenzo Gioberti, that in his work *Del rinnovamento civile d’Italia* (1851) (that was widely cited in the writings of Antonio Gramsci) defined it as “that sort of supremacy, pre-eminence, superiority, not legal nor juridical in the strict sense of the word, but morally efficient, that among several congeneric, unilingual and compatriot provinces, one exercises over the others” (Gioberti, 1851, vol. II: 203, translated by the author from the original Italian). This definition became progressively popular and successfully penetrated the political language, with an increasing association of the term hegemony to the term leadership, notably as it was done by *The Times* in 1860 with reference to the Prussian hegemony/leadership over the German Confederation. In that occasion the newspaper stated that “it is a glorious ambition which drives Prussia to assert her claim to the leadership, or as that land of professors phrases it, the “hegemony” of the Germanic Confederation” (The Times, 1860). This last point calls for a distinction between the orthodox realist usage of the term in IR – which refers to the dominance of one state over one or more other states through the exertion of the Weberian “power over” (Gill and Law, 1989: 476) – and the usage originating from the work of the Italian political theorist Antonio Gramsci, which is the one adopted in this research and that inspired Lukes’ third dimension of power.

Gramsci developed the theory of hegemony in his monumental work *Quaderni del carcere* (1975), that he wrote between 1929 and 1935 while imprisoned by the Italian Fascist regime. The Gramscian concept of hegemony refers to the relations between classes and between the State and the civil society. In the struggle for hegemony in the civil society (“*società civile*”) a political party, for instance, needs to get ideological and cultural consent. Once the consent from the civil society is obtained, the party can act as State and

use its force to create a new historical bloc. Thus ideologies, for Gramsci, are assessed for their social effects rather than on their effective value (Fairclough, 2010: 62). Hegemony denotes the success of a dominant class in presenting its view of the world and its ideology, in achieving an intellectual and moral leadership in a way that the other classes accept it and consider it common sense²⁷.

As Ekers and Loftus noted, Gramsci's development of hegemony has two related facets. The first refers to “the maintenance of one social group's dominance over subordinate groups, accomplished through relations of consent and coercion” (Ekers and Loftus, 2008: 702). The second refers to how hegemony can be maintained, and this is done reproducing “the social relations that are foundational to a given social formation” (Ekers and Loftus, 2008: 702). More specifically, the State consolidates its hegemony and creates in people certain expectations and behaviours through a set of “private institutions” usually considered outside of the State, such as the Church, trade unions, schools and the intellectuals. The latter, are considered an efficacious instrument to affirm hegemony, such as the Italian philosopher Benedetto Croce, described by Gramsci as a “lay Pope” for his influence on Italian politics (Gramsci, 1975a: letter 210). If a government is not able to create its own class of intellectuals, it will only exercise dictatorship and not hegemony.

Coercion and consent come together, and they are, in the function of hegemony, “connective” (Gramsci, 1975: Q12§1). Although both force and consent are necessary for a hegemonic order to survive, it is primarily on consent that a State needs to base its relations with the civil society. It is based on these assumptions that Gramsci criticizes the Italian Fascist regime, which in his view represents an element of weakness of the bourgeoisie, as it is a regime based on force rather than on consent (Mordenti, 1996: 51). Machiavelli's image of the Prince, half beast (lion, fox and centaur) and half man – the metaphorical representation of a good ruler – is revisited by Gramsci as the combination of consent and coercion necessary to govern, “to the extent that the consensual aspect of power is in the forefront, hegemony prevails” (Cox, 1983: 165). To say it with the words of Gramsci:

²⁷ While Gramsci ideated theories on how to get hegemony from a disadvantageous situation (for example through a revolution), Gaetano Mosca (1923) – a main thinker in elite theory and an early political antagonist of Gramsci – developed the doctrine of the “political class”, in which he explained how a small minority can maintain power.

The 'normal' exercise of hegemony in the classic ground of the parliamentary system, is characterized by a combination of force and consent, which balance each other variously, in a way that force does not stand above consent, on the contrary, force should appear as if it is sustained by the consent of the majority. (Gramsci, 1975: Q13§37, 1638, translated by the author from the original Italian)

When the State dominates instead of directing, the result is dictatorship without hegemony (Gramsci, 1975: Q15§59), or, in other words, domination and not hegemony.

2.3.1 Hegemony applied to IR

Now that the concept of hegemony has been outlined, it is possible to introduce how this concept can be applied to IR. The notion of hegemony adopted in this study does not refer to the dominance of one state over another but rather to the Gramscian notion of coercion and consent, which was originally conceived and applied at the State level (referring to “internal” hegemony in the era of Italian city-states or in Fascist Italy).

In IR theory, two main approaches to hegemony can be identified, a conventional realist one and a critical neo-Gramscian perspective. As Bieler and Morton observed, “conventional IR theory, reduces hegemony to a single dimension of dominance based on the economic and military capabilities of states” (Bieler and Morton, 2004: 87). This idea of hegemony – that can be linked to the first dimension of power, “hard power”, as it refers to domination through coercion – is at the origin of the hegemonic stability theory (HST), conceived by Robert Keohane (1984). HST is based on two central propositions: i) “Order in world politics is typically created by a single dominant power. Since regimes constitute elements of an international order, this implies that the formation of international regimes normally depends on hegemony”; ii) “The maintenance of order requires continuous hegemony” (Keohane, 1984: 31). Hence, according to Keohane, cooperation, order and stability can be achieved through the activities of a hegemonic power (as in the cases of *the pax Britannica* in the nineteenth century and the *pax Americana* after the Second World War), which “must possess enough military power to be able to protect the international political economy that it dominates from incursions by hostile adversaries” (Keohane, 1984: 39).

In contrast with this approach, the neo-Gramscian perspective of hegemony developed by Canadian scholar Robert Cox, broadens the domain of hegemony going back to the

Gramscian theorisations, and defines it as an expression of widely-based consent supported by material resources and institutions. As in the Gramscian thought, “dominance by a powerful state may be a necessary but not a sufficient condition of hegemony” (Cox, 1981: 139). For Cox, hegemony is based on three spheres of activity: 1) the social forces engendered by the production process; 2) the forms of state; 3) world orders (Cox 1981; 137-8). In addition, within each sphere of activity Cox (1981; 136) identified three categories of forces (or potentials) that interact: material capabilities/power (as industries and armaments), ideas (intersubjective meanings and collective images of social order held by different groups of people) and institutions (a particular amalgam of material power and ideas which help maintaining stability). These three forces act together in a reciprocal relationship to constitute an historical structure.

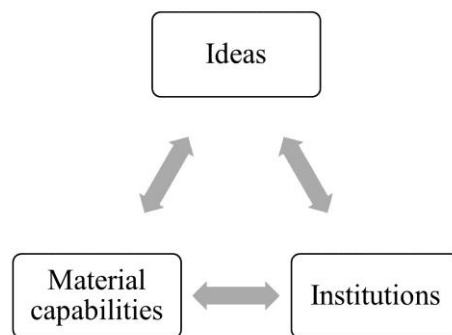


Figure 4: The relationship of forces in an historical structure. Adapted from Cox, 1981: 136.

In the world order, world hegemony is a “social structure, an economic structure, and a political structure; and it cannot be simply one of these things but must be all three” (Cox, 1983: 172). Therefore, also when hegemony is studied at the world level, it appears as a complex of universal norms and institutions which create rules of behaviour for states and for the different forces operating within the civil society. The hegemon is the first amongst equals, as for example the United States at the UN General Assembly in comparison with Canada. Both countries have one vote and are formally on the same level, but the vote of the United States has a different weight in terms of influence than that of Canada (Zeitoun and Allan, 2008: 9). This is the fundamental difference between hegemony and other forms of control such as imperialism or mere domination: hegemony can manipulate inter-state

relations without a superior body, while, on the contrary, imperialism is based on formal rule and military imposition (Keohane, 1991). The key requirement for a hegemonic order to survive is that the hegemon has to convince the hegemonised that they are also serving, at least in part, their own interests. When consent vanishes and order starts being contested, as in the case of Arab states in 2011 for instance, there is not anymore hegemony and power can be toppled (Keucheyan, 2012).

Further contributing on this neo-Gramscian perspective, the Belgian political theorist Chantal Mouffe (2008) conceived hegemony and a hegemonic order as something fixed through nodal points of power:

As far as politics is concerned, this means the need to envisage it in terms of a hegemonic struggle between conflicting hegemonic projects attempting to incarnate the universal and to define the symbolic parameters of social life. Hegemony is obtained through the construction of nodal points, which discursively fix the meaning of institutions and social practices and articulate the ‘common sense’ through which a given conception of reality is established. (Mouffe, 2008)

Whether the notion of hegemony is approached from a realist or from a neo-Gramscian perspective, in both cases it is clear how this concept is intimately correlated to that of power (see Figure 5). The main difference is that for the former approach, the focus is on hard power, for the latter is on a combination of hard (coercion) and soft (consent) power. Considering hegemony only as a form of domination based on material capabilities, seems somewhat reductive. On the subject of consent, in particular, it can be observed how, over the last five centuries, many thinkers have converged on one point: hard power alone is not enough to maintain supremacy.

For Machiavelli, a Prince had to be respected to obtain obedience, as in the ideal case of Roman Emperor Marcus Aurelius, who “possessed many qualities which earned him great respect, all his life he succeeded in holding both of these [the soldiers and the populace] in check and he was never hated or scorned” (Machiavelli, 1958: 108). Gramsci, as it was widely observed, thinks that force should appear as sustained by consent. Nye, similarly, sees the effects of soft power, intended as the power to persuade and to co-opt people rather than coerce them, as more effective than those of hard power: “if I can get you to want to do what I want, then I do not have to force you to do what you do not want to do” (Nye,

2002: 9). The reciprocal relationship between material capabilities, ideas and institutions devised by Cox, further confirms the idea of several forces acting together in a structure. Thus, there appears to be an intimate connection between material power and the invisible soft power of persuasion which is at the basis of the concept of hegemony.

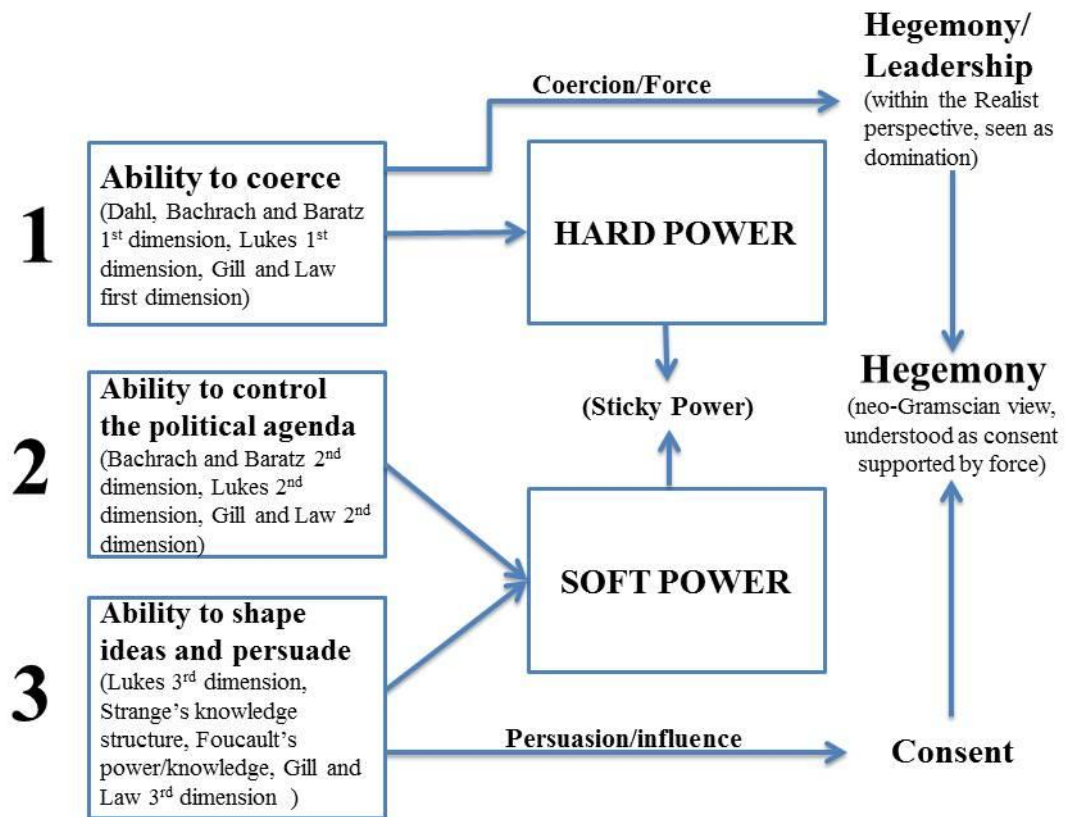


Figure 5: Schematic representation of the three dimensions of power overlapping with hegemony (source: Author).

It can be argued, therefore, that with respect to hegemony power can be considered as the means to an end, with the end being the achievement and maintain of hegemony. Power cannot be understood as the end itself (as for instance Machiavelli argued), as it is always wielded to get a desired outcome.

2.4. The framework of hydro-hegemony

Now that the key concepts of power and hegemony have been illustrated, it is possible to address more in detail the subject of power and hegemony in water relations. The first

attempts to study how control of water resources is indeed related to power dynamics and not to the idea of water-wars, can be traced back to Frey (1993), Gleick (1993) and Lowi (1993). Among the four factors or characteristics that make water likely to be a source of strategic rivalry, Gleick identifies “the relative power of the basin states” (Gleick, 1993: 84)²⁸. Lowi (1993), adapts Keohane’s HST to the water sector, arguing that when the upstream riparian is also the hegemon (in her acceptance of the term, hegemon stands for the most powerful state in the basin), the chances that cooperation takes place are low since it has no interest or incentive in doing so; cooperation is more probable when the hegemon is located downstream and it has a critical need of water²⁹. The theory of Hegemonic Stability was of inspiration also for Frederick Frey, who was the first to present a power-analytic framework. Frey reached the conclusion that the least stable situation in an international river basin, is obtained when a powerful nation downstream is in need of water and compete for it with weaker nations upstream (Frey, 1993: 62). Although Zeitoun and Warner (2006: 436) noted that Frey’s assumption contradicts with the stability of Egypt’s water relations with other Nile co-riparians, they recognise the utility of Frey’s framework, especially for what concerns the intuition of creating an analytical framework based on power to analyse water relations.

The FHH gives emphasis to power and to the role that asymmetries of riparian power play in influencing transboundary water relations. Power relations are seen as a dynamic reality, since in international river basins “power and power asymmetry, are constantly being contested and challenged” (Casção and Zeitoun, 2010: 30) in a quest to change the status-quo. As described by Zeitoun and Warner, the FHH is aimed at analysing hydropolitics avoiding the traditional “water wars” and “water peace” discourses (Zeitoun and Warner, 2008: 809). Applying the Gramscian concept of hegemony and Lukes’s three dimension of power to hydropolitics, the FHH looks at how the basin state with more relative power, the hydro-hegemon, “can establish the form of interaction [sic] over transboundary waters that it prefers” (Zeitoun and Warner, 2006: 455). The FHH is the first

²⁸ The other three being the degree of scarcity, the extent to which the water supply is shared by more than one region or state and the ease of access to alternative fresh water sources (Gleick, 1993: 84).

²⁹ Dinar et al. (2007: 150) efficiently contradict Lowi’s argument taking as an example the Colorado River salinity issue between the United States and Mexico, where the former – being both the most powerful and the upstream state – not only entered into an agreement with Mexico but also paid the high costs of desalinating the waters flowing downstream.

structured study in the field of hydrogeopolitics that takes power as a key to understand riparian relations, and this is where its importance resides.

The FHH is based on three pillars (see Figure 6), that are at the origin of power asymmetries in a river basin. The first and third pillars, are respectively riparian position (i.e. being upstream, midstream or downstream of a river course) and exploitation potential (the capacity to exploit existing hydraulic infrastructures and to create new ones. Riparian position, or geographical power, refers to the advantage that the geographical position can give to a country. More precisely, the upstream country – the country where water originates – can alter the flow of water in several ways (i.e. building a dam, diverting a river, or polluting the water going upstream) affecting the countries that are further downstream. Nevertheless, the common example of how being upstream or downstream has only a relative influence in power configurations, is that of Egypt in the Nile river basin: Egypt is the furthest downstream country, and thus the most geographically disadvantaged, but is also the hydro-hegemon in the basin (Cascao and Zeitoun, 2010: 192). Geographic position can be particularly beneficial if it is combined with exploitation potential, which refers to the technical and financial capacity to carry out hydraulic projects such as the construction of a dam or the diversion of a river. But the innovative contribution of the FHH is its second pillar, which is the one centred on power.

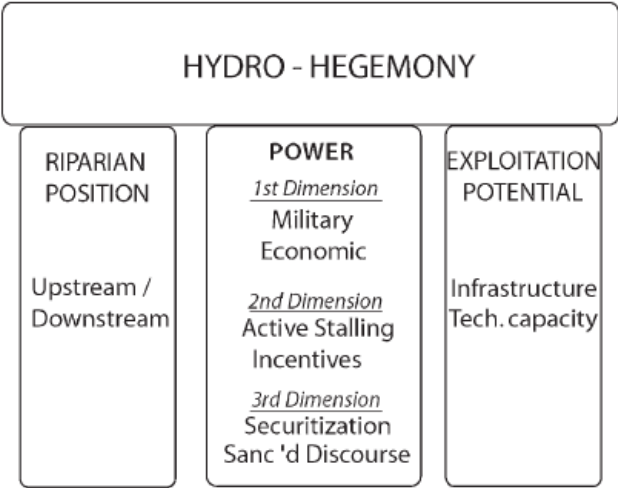


Figure 6: The pillars of hydro-hegemony (source: Zeitoun and Warner, 2006: 451).

Lukes's three dimensions of power are thus applied to hydropolitics to define respectively material, bargaining and ideational power. The first and most recognizable form of power is material power, which can be associated with the riparian's position, its size, military might and economic strength. A classic example of wielding this form of power, consists in the mobilization of troops at the border. The second form of power, bargaining, relates to control over the rules of the game and the ability to set the agenda. Bargaining power is "measured by the impact that one's own options and alternatives may have on the other" (Woodhouse and Zeitoun 2008: 111). An example of this form of power is the ability to block an issue from being discussed in regional talks, as Uzbekistan does when it comes to discuss the issue of labour migration at regional meetings (Marat, 2009: 29) or water allocation. Finally, ideational power – which forms the broader category of discursive power along with bargaining – is the power over ideas, the power to impose a sanctioned discourse and narratives or a particular ideology. It is the most effective form of power, as it legitimates and stabilises the existing situation in such a way that the dominated do not seek to challenge it. Through ideational power the hegemon convinces the hegemonised that the current situation is right and proper. Ideational power can be wielded, for instance, by bringing a particular issue at an international forum, such as the UN General Assembly (UNGA), to impose a certain discourse and gain international support. Ideational power, and the way knowledge or a discourse are constructed, can also be associated with the Copenhagen concept of securitisation, to explain why certain issues become non-negotiable and how the overturn of normal rights and rules of engagement is legitimised (Zeitoun and Warner, 2008: 807).

Zeitoun and Warner (2006: 445) outlined a series of strategies and tactics – expression of the various forms of power – that basin riparians can adopt to control water resources. Among them, they list: coercive compliance-producing mechanisms (military force, covert actions and coercion through threats); utilitarian compliance-producing mechanisms (incentives to cooperate); normative compliance-producing mechanisms (treaties); and hegemonic compliance-producing mechanisms (securitization, knowledge construction, sanctioned discourse, coercive resources, international support, financial mobilisation and riparian position).

These forms of power act concurrently to determine who the hegemon is in an international river basin, or the hydro-hegemon (HH). The HH is the basin riparian whose leadership is buttressed by authority, one that carries an hegemonic strategy based on cohesion and compliance and sustained by attraction rather than intimidation, although the two elements indeed coexist (Zeitoun and Allan 2008: 9). Force and consent, together with the imposition of ideas and dominant discourses, are more relevant in determining water use and allocation than other instruments such as international water law, water sharing ethics or riparian position (Zeitoun and Allan, 2008: 10). HHs can be both upstream and downstream, and conversely the weaker states, non-hegemons, can be both upstream and downstream. A few examples of HHs are Egypt (downstream) in the Nile river basin, Turkey (upstream) in the Tigris-Euphrates river basin, Israel (midstream) in the Jordan river basin, India (upstream) in the Ganges and Indus river basins and the US (upstream) in the Colorado river basin. The HH is the riparian that may have interest in maintaining the status-quo, as it is most likely satisfied by the existing situation. Further reflecting on this, the HH can be seen as the basin riparian that is able to impose a certain discourse – for instance, insisting on the principle of absolute integrity of a river, which states that upstream nations cannot affect in any way the quantity or quality of the water flowing downstream – while being also able to secure control of water resources.

Hydro-hegemony is not necessarily a negative concept. In cases where the HH has negotiated a water-sharing agreement that is positively perceived by the other riparians, there is a “positive/leadership” form of hydro-hegemony (Zeitoun and Warner, 2006: 444). On the opposite end, when the HH tries to achieve maximum control of water resources through unilateral actions, there is a “negative/dominative form of hydro-hegemony. This latter setting can lead to unstable water relations, particularly when the riparians are approximately equal in power, as it is more likely that the status-quo will be contested with an increasing competition among countries. This situation, as it will be shown in Chapter 3, seems to be the one that better represents water relations in the Aral Sea Basin, that are marked by open confrontation among basin riparians.

2.5. Hydro-hegemony revisited

The above discussion on power, hegemony and hydro-hegemony provides the elements to make an argument for a partial re-theorization of the FHH. The FHH offers extremely useful insights to the understanding of interstate relations, but does not explicitly show that hegemony and not power is its central element. This is because its current structure based on pillars does not seem to be the most appropriate to represent the intimate connection that these two elements have. As it was widely observed, an analysis of power can benefit from the understanding that power is the means to hegemony, and not vice versa.

Since the focus is being placed on hegemony and on the ways in which it can be maintained or contested, why not placing hegemony at the centre of an analytical structure? Moreover, the pillars in the FHH have been used to give estimates of the various levels of power (see for instance Cascao and Zeitoun, 2010: 33) in various river basins. While this can prompt interesting debates and give an intuitive representation of who is considered the hydro-hegemon in a selected river basin, it can somehow be misleading, in the sense that it can lead to think that there is something that can be defined as “half-hegemony”. Furthermore, since each specific river basin has its own “problemshed”, the relative value of a certain form of power can change according to the basin and to the actors involved, and this cannot be shown in this schematic representation³⁰.

Therefore, I argue that representing power through pillars and measuring it, even if through estimates, does not really benefit the analysis of hegemony. I propose a redesign (see Figure 7) of the structure of hydro-hegemony, one that takes into consideration the forms of power in a similar way than that adopted by the FHH, but that presents them as interconnected, since they are – to paraphrase Antonio Gramsci (1975: Q12§1) – “connective” in the function of hegemony, or, in this case, of hydro-hegemony.

³⁰ This seems to recall Hoffmann’s (1972) conception of world politics in terms of distinct issue areas placed on alternative chessboards, each with a different weight.

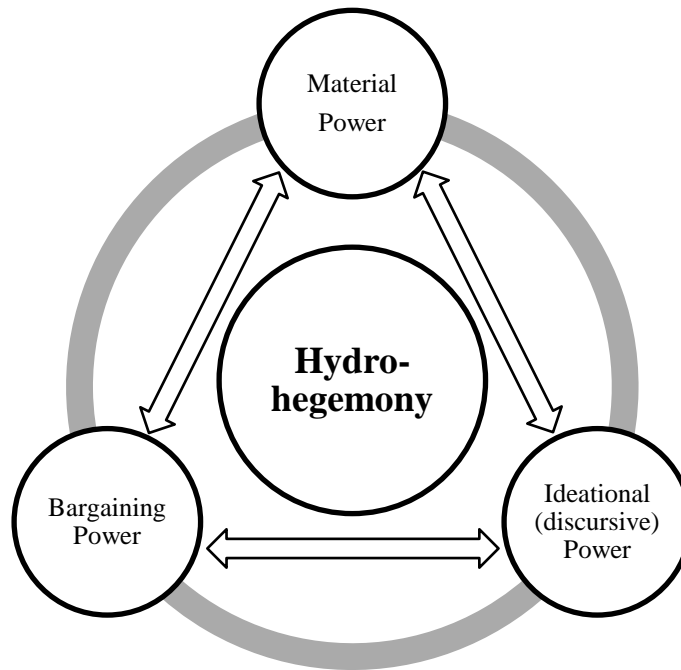


Figure 7: The circle of hydro-hegemony (source: Author)

The “circle of hydro-hegemony” illustrated in Figure 7, embodies the theoretical rationale behind the schematic representation of the three dimensions of power overlapping with hegemony, as it was showed in Figure 5. It also takes inspiration from Cox’s concept of the relationship of forces in an historical structure (Cox, 1981) (Figure 4), to display how the three forms of power interact and act together to constitute a hydro-hegemonic setting. While the circle of hydro-hegemony might primarily appear as a cosmetic change of the original FHH, it sets the basis for a different understanding of the complex relationship of forces in interstate relations.

Hydro-hegemony is here defined as the success of basin riparian in imposing a discourse, preserving its interests and impeding changes to a convenient status-quo. This definition combines elements from the conventional Gramscian definition of hegemony – which denotes the success of a dominant class in presenting its view of the world and its ideology – with aspects related to the management and control of shared water resources.

The three forms of power adopted in the circle of hydro-hegemony are not particularly different from those of the FHH. Material power include the riparian’s position, its size, military might, economic strength and structural capacities. The latter refer to the capacity

of realising large hydraulic infrastructures (such as dams) and to freely exploit those already existing. Bargaining power relates to the ability to set a political agenda and to shift the balance in negotiations limiting the options and alternatives of the counterpart. Ideational (discursive) power refers to the ability to impose a sanctioned discourse or a particular ideology. While this last form of power appears indeed as the most effective of the three towards the achievement of hydro-hegemony, the relative value of each of the three forms of power can vary depending on the situation in which the basin riparians find themselves³¹. Accordingly, rather than measuring the relative weight of each form of power, what seems analytically relevant is to observe which forms of power are more used by each riparian, and trying to understand the reasons behind such choice.

2.5.1. Counter-hegemonic strategies: a neglected concept

Along with hegemony comes the possibility for counter-hegemony. In his seminal book *Weapons of the weak: everyday forms of peasant resistance*, James C. Scott (1985) observed how resistance forms a continuous, almost invisible flux, which can be difficult to be observed but also extremely powerful. As Laclau and Mouffe (2001) noted in their theoretical analysis of hegemony, micro-strategies of resistance are always possible, even in the most totalising hegemonic setting.

While a relevant body of hydropolitics literature focuses on how a hydro-hegemon can use power to influence water relations (among the others, Zeitoun and Warner, 2006; Daoudy, 2008; Turton and Funke, 2008; Zeitoun, 2008; Zeitoun, 2011; Chellaney, 2013), the ways in which hegemony can be countered and contested have not been studied with equal attention. Although Zeitoun and Warner have listed a few strategies – all within the bargaining face of power – that non-hegemons can adopt, such as “recourse to morality and international law, delay, de-securitization, issue linkage, economic development, alternative funding sources, negotiations and generation of positive-sum outcomes” (2006: 454), they

³¹ A clear example is that of a weaker upstream country that cannot exploit its hydroelectric potential, as Tajikistan in the Amu Darya river basin or Ethiopia in the Nile river basin. In this case, their relative material power is considerably lower than that of the downstream countries, Tajikistan and Egypt, although the latter are geographically disadvantaged by their position. This is because even if they are upstream, the status-quo is such that they cannot take advantage of their position, since the downstream countries successfully impede their hydraulic ambitions. Conversely, the relative material power of a hydro-hegemon in an upstream position, like Turkey in the Tigris-Euphrates river basin, is considerably higher than that of the downstream states, Iraq and Syria.

also noted that there is the need for more work in this field. Ana Cascão (2008) has explored how, in the Nile river basin, hegemonised Ethiopia has used counter-hegemonic strategies – such as reactive and active diplomacy, the mobilisation of international funding and construction of knowledge and expertise – to expand its influence on the Nile’s water management. Warner (2010), has illustrated how Turkey’s hegemony in the Tigris-Euphrates basin has been challenged both internally, with domestic opposition, and externally, through an action carried out by downstream countries, NGOs and archaeologists, that criticized the Turkish Ilisu dam linking its construction with the unresolved and controversial issue of repression of Kurdish identity. This action, that sullied the image of the Ilisu dam, was successful in influencing international backers to pull out of the project. Also, Marwa Daoudy has noted how the process of issue linkage can be an effective source of bargaining power, in particular for the weaker party (Daoudy, 2009: 366), as in the case of Syria’s use of issue-linkage in its water interactions with Turkey in the Tigris-Euphrates basin³².

Hence, the ways in which counter-hegemonic strategies are put in place in an international river basin could benefit from further analysis, since the research to date has tended to focus on how hegemony is maintained rather than countered. For the purposes of this study, counter hydro-hegemony (hereinafter “counter-hegemony”) can be defined as the process through which a dominant discourse and a disadvantageous status-quo is contested and challenged. Counter-hegemony is a continuous process aimed at altering and reversing an existing hydro-hegemonic configuration.

The two case studies – the Rogun and the Kambarata dams – will therefore be used to examine how hegemony is countered and contested. As it was noted in Chapter 1, the dams are well suited to the analysis of a counter-hegemonic process. Their realization epitomises a change in regional water issues, reversing a situation in which the upstream countries are not able to develop their hydroelectric potential. More specifically, the focus will be placed on the analysis and categorization of the various strategies and tactics that the Tajik and the

³² An interesting point in Daoudy’s work (2009) is the idea that time can be a source of bargaining power. Time, patience and delay, constitute in her opinion an important source of power that may be used both by the hegemon and the hegemonised. This aspect, as it will be shown in Chapter 6, appears to be of relevance also in the Aral Sea basin.

Kyrgyz governments have put in place to favour the realisation of the two projects, that will serve as a platform to the analysis of power dynamics.

The analysis of the two case studies will be preceded by an overview of the evolution of interstate water relations in Central Asia. This will be done with the support of the TWINS matrix.

2.5. The TWINS framework

The TWINS framework is used to answer one of the sub-questions of this thesis, *how did water relations in Central Asia evolve in the period 1991-2011*, which is propaedeutic to the analysis of power and hegemonies in the two case studies, Rogun and Kambarata. Conceived by Naho Mirumachi (2007, 2010), the TWINS framework is a hermeneutic tool that allows to draw trajectories of the evolution of inter-state relations over time. The framework is informed by constructivism, in the sense that “interaction between states is worthy of detailed analysis for its reality-creating effects” (Mirumachi, 2010: 49). The TWINS diagram, formed by the axis of cooperation intensity and the axis of conflict intensity, allows drawing trajectories that outline the evolution of bilateral interstate relations over time.

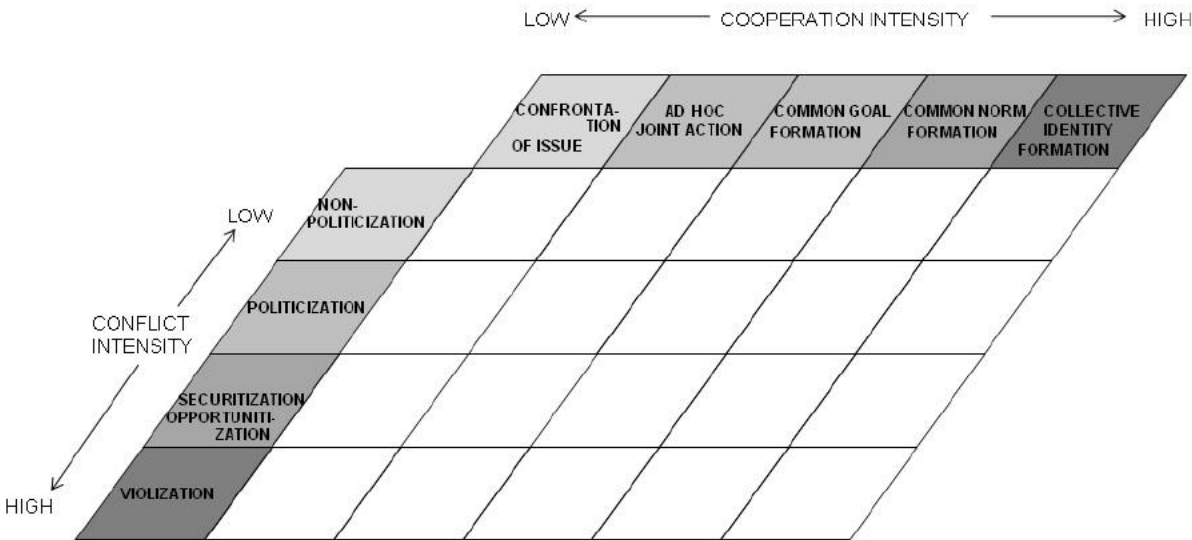


Figure 8: The TWINS diagram (Mirumachi 2010)

2.5.1. Conflict intensity

To categorise conflict intensity, TWINS “applies securitization theory to the issues of hydraulic development and control over international transboundary waters” (Mirumachi, 2010: 57). In securitization theory – developed by the Copenhagen school – “security is the move that takes politics beyond the established rules of the game and frames the issues either as a special kind of politics or as above politics” (Buzan et al. 1998: 23). In this view, security is a self-referential practice, and the focus needs to be placed not on what is a real existential threat to national security, but on what is intersubjectively constructed as being an existential threat to national security. Three types of unit are involved in security analysis: i) referent objects, which represent what is seen as an existential threat; ii) securitizing actors, who securitize issues by declaring the referent object existentially threatened; and iii) functional actors, who affect the dynamics of a sector (for instance dams, through their capacity of changing the water flow, can be a functional actor in a water dispute, with water being the referent object and governments being the securitizing actors). Thus, securitisation theory is particularly suitable for a constructivist hydropolitics, as the emphasis is on how an issue like transboundary water management “gets (de)politicised, (de)securitised or (de)violised” (Julien, 2012: 59).

Correspondingly, in TWINS the four levels of conflict are non-politicization, politicization, securitization-opportunization and violization and they correspond to the stages of the securitization process. In their book *Security: a new framework for analysis*, Buzan, Waever and De Wilde explain that public issues can range from three logic of actions. At first, an issue can be nonpoliticized, meaning the state does not deal with it and the issue is not in any other way made an issue of public debate and decision. Secondly, the issue can be politicized, meaning the issue is part of public policy, requiring government decision and resource allocation or, more rarely, some other form of communal governance. Water, for instance, is a politicized issue in Central Asia context, as it is dealt with directly by governments. Thirdly, an issue can be securitized, meaning the issue is presented as an existential threat, requiring emergency measures and justifying actions outside the normal bounds of political procedure (Buzan et al., 1998: 23-24). Together with this third dimension, a conflict could be opportunized, when “the issue offers such a great

chance to improve a situation that it justifies actions outside the normal bounds of political procedure (Warner, 2004: 3). Finally, the fourth and highest level is violized, where “an already securitised issue such as identity becomes a *casus belli* over which blood must run” (Neumann 1998). However, as it was shown by Wolf and his team at Oregon State University (Yoffe, Wolf and Giordano, 2003), it is very uncommon that states will engage into violized interactions over water at the international level. Thus, when the perception of a certain issue by the state changes, conflict intensity over transboundary waters varies accordingly.

2.5.2. Cooperation intensity

If, on the one hand, the categorisation of conflict intensity in TWINS draws from securitization theory, on the other hand, the categorisation of cooperation intensity takes a direct constructivist approach, and draws upon the work of Wendt (1999) and Tuomela (2000). Through its emphasis on ideas and norms, constructivism allows to examine cooperation emphasizing the process of socialization between actors (Mirumachi, 2010: 59). Using Tuomela’s theory (2000) on how collective actions contribute to the formation of collective identities, Mirumachi (2010: 60) applies the elements of collective action – joint action, intention of collective action and common goals – to the study of cooperation in international transboundary waters, classifying five levels of cooperation intensity: confrontation of issue, ad-hoc joint action, common goal formation, common norm formation and collective identity formation. When the level is confrontation of the issue, “the issue is acknowledged but there is no specific joint action or identification and sharing of goals”. The next level of cooperation is ad hoc joint action, which happens once there is “joint action but no shared goals”. In other words, two States may want to perform the same action, as for instance cleaning a shared river bed, but with a different objective. The third level of cooperation is common goal formation, which happens when two States share a goal but have divergent ideas on the type of action that might be taken to reach it. This happens, for example, when two countries want a clean shared river, but for different purposes (i.e., to stimulate tourism or to decrease pollution levels). The difference between the second and third intensities of cooperation is that in the former, two actors act together but with a different objective, in the latter, the objective is the same but the actions and

policies undertaken to reach it may be dissimilar. When there is joint action, shared goals and identification of common norms, the level of cooperation is common norm formation. In water relations, this is often the case when treaties and agreements on water resources management are signed. Finally, the highest level of cooperation is collective identity formation, when collective identity is completely formed. At this level of cooperation, the internal interests of a State correspond to the collective international interest.

In TWINS, the social construction of international transboundary hydropolitics is studied through the analysis of different types of speech acts. Based on this analysis, certain events of importance in interstate relations will be outlined and used to draw a trajectory of the interaction between States, that provides a clear image of the state of transboundary relations at a point in time and through different phases of a relationship and that help in emphasizing the various discourses that guided water relations.

2.5.3. Application of TWINS to this study

As mention in the Introduction, Chapter 3 will outline the evolution of interstate relations in Central Asia in the field of water, to be able to position Rogun and Kambarata in the wider Central Asian context. This is done using the TWINS matrix that is accompanied by an account of the evolution of bilateral relations. The main reason behind the decision of using the TWINS matrix in this thesis is that it provides an overview of the state of transboundary relations at a specific point in time and through different phases of a relationship. This ability of tracing the state of a relationship at a specific point in time, it is of importance as it facilitates an analysis of the impact that these dams have had on general water relations. If, on the one hand, the analysis of broader water relations covers a timespan of twenty years (1991-2011), on the other hand, the debate around Rogun and Kambarata gained prominence in Central Asian water politics only in the 2000s, when both projects have been revamped respectively by Tajikistan and Kyrgyzstan. This discrepancy offers the opportunity for a compared analysis aimed at observing how these two dams have impacted on broader water relations, to see if changes in interstate relations can be directly linked with developments on the dam dispute and if the launch of these projects can be associated with the general conflictual/cooperative relation as it was outlined with the TWINS.

Although potentially this study could have analysed all bilateral relations in the Aral Sea basin, it has been decided to limit the scope of the analysis to two bilateral relations, that have been selected for their relevance in relation to the projected Rogun and Kambarata dams, and that cover the two main Central Asian river basins.

For what concerns the Amu Darya river basin, the selected interaction is that between Tajikistan and Uzbekistan, the former being the country where the Rogun dam is located, and the latter being its most vocal opponent. Likewise, the selected interaction in the Syr Darya river basin is that between Kyrgyzstan, where the Kambarata dam is being built, and Uzbekistan, that also in this case is the most vocal dam opponent.

Similarly to the analytical framework of hydro-hegemony, TWINS is based on the assumption that asymmetries in power distribution among basin riparians play a significant role in influencing water relations (Mirumachi, 2010: 62). In this research, the TWINS is used as a platform to outline a trajectory in the interaction between two countries, and then, the analytical framework of hydro-hegemony serves to understand – through the study of power dynamics and power asymmetries – why interstate relations followed a certain direction. This is why the TWINS will be used to illustrate the evolution of water relations in the Aral Sea basin and to set the broader political context, to be then followed by the more specific analysis on the debate around the construction of Rogun and Kambarata and the analysis of power dynamics, hegemonic and counter-hegemonic strategies.

2.6. Data collection and methods of analysis

The following section summarizes the methods that were used to collect information and to analyse them. For more details on the methodology, please refer to the Annex 1.

The first step of the study has been to create three detailed chronologies (one for general interstate relations and one each for Rogun and Kambarata) of relevant speech acts representative of cooperative and conflictive interactions. In this research, speech acts are studied within Onuf's three categories, assertive, directive and commissive (see paragraph 2.1), with the clarification that speech acts can be both verbal and nonverbal facts, as stated by Duffy and Frederking (2009) in their speech acts analysis of the end of the Cold War. A nonverbal speech act is a physical, concrete action that conveys a meaning, such as mobilizing troops at the border, which is an example of a directive speech act. In water

relations, an assertive speech act can be for instance a public speech or an official statement through which sovereignty on water resources is stated. A directive speech act can be a cut in water resources to obtain, for instance, resumption in supplies of another natural resource. Finally, a commissive speech act can be the signing of a treaty or a joint declaration, commissive.

Speech acts have been analysed using grounded theory and principles of discourse analysis. Being this a study on power and hegemony, it is important to focus on the capacity of one actor to impose or control a certain discourse, as the management of social representations can be associated with the control over the minds and perceptions of other people and thus to hegemony (Van Dijk, 1993: 257). Discourse analysis in this study is used in the analysis of speech acts, to ascertain whether they are assertive, directive or commissive, connecting them with particular periods of water relations in the Aral Sea basin, and analysing the audience towards which they were addressed and the meaning that wanted to be conveyed. The way discourse analysis is carried out is inspired by techniques developed in grounded theory. Grounded theory is a methodology for developing theory that is grounded in data gathered and analysed systematically (Strauss and Corbin, 1994: 273). In this methodology originally conceived by Glaser and Strauss (1967), theory may be generated directly from the data or, if other theories on the area of investigation already exist, theory may be further elaborated and modified using the data gathered. The former approach, applies to the study of counter-hegemonic strategies, which have not been theorised in detail and therefore theory will be generated directly from the data. The latter approach, on the other hand, will be used for hegemonic strategies. In this case, the data gathered will be confronted with the existing theorisation from Warner and Zeitoun (2006), confirming or further expanding the categorisation of hegemonic strategies. The data collected in the three timelines, is coded and categorised (and sub-categorised) looking for relationships, patterns of action and interaction (Strauss and Corbin, 1994: 278) between the various basin riparians. As Birks and Mills note, grounded theory is usually derived from data sources of a qualitative and interpretive nature (Birks and Mills, 2011: 6), as it is also the case for this research.

Chapter 3. Water relations in Central Asia

Consider the water you drink – was it you who brought it down from the rain-cloud or We? If We wanted, We could make it bitter: will you not be thankful?

Qur'an, 56: 68-70

The purpose of this chapter is to provide an overview of transboundary water relations in the Aral Sea basin for the period 1991-2011. The chapter is divided into three main sections. The first, provides some key definitions and delineates the main principles of international water law. The second introduces the basin, its geographical and hydrological characteristics, the legacy left by the Soviet Union and the setting that emerged after independence. The third section outlines the evolution of interstate water relations among the Central Asian countries, initially presenting the general picture and later narrowing down the focus on bilateral relations between Tajikistan and Uzbekistan, and Kyrgyzstan and Uzbekistan. This will serve as a background for the examination of the two case-studies of this research, the construction of the Rogun and Kambarata dams in Tajikistan and in Kyrgyzstan. In addition, the analysis carried out in this chapter will allow to answer the first sub-question, “*how did water relations in Central Asia evolve in the period 1991-2011?*”, and will also be useful to place the two dams in the appropriate context, and to understand how their revitalisation has impacted on broader interstate relations.

3.1. Background on transboundary waters and international water law

This section lays out some of the basic definitions that will be used throughout this chapter. Furthermore, the key principles of international water law and of Soviet water law will be illustrated.

3.1.1. Defining transboundary waters

Water covers about 70 % of the Earth's surface. As UN Water (a UN inter-agency coordination mechanism for all freshwater and sanitation related issues) reports, the volume of freshwater resources is around 35 million km³, that represents 2.5 % of the total volume of water on Earth. Of these freshwater resources, 70 % is in the form of ice and permanent snow cover in mountainous regions, while around 30 % is stored in underground aquifers. The remaining 0.3 %, equal to 105,000 km³, is contained in freshwater lakes and rivers (or watercourses), that thus represent only a tiny amount (around 0.01 %) of total water resources. This, however, does not diminish the importance that freshwater rivers and lakes have for humans. On the contrary, they become even more crucial, also because the water that they store is the one that can be more easily accessed.

But what exactly is a watercourse? According to Article 2 of the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses (hereinafter, the “UN water convention”), a watercourse can be defined as “a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus”. Also, an international watercourse is a “watercourse, parts of which are situated in different States”.

Watercourses form river basins, which can be defined as “the area that contributes hydrologically (including both surface-and groundwater) to a first order stream, which, in turn, is defined by its outlet to the ocean or to a terminal (closed) lake or inland sea”. When a perennial tributary of a basin crosses the political boundaries of two or more nations, such basin can be defined an international river basin (Wolf, 2007: 245).

Additionally, there are various types of rivers. When a river forms a border (such as the Shatt-al-Arab river, that separates Iran and Iraq) the river is called *contiguous*, and when it crosses a border and generates an upstream-downstream configuration (such as the Tigris river, that flows from Turkey through Iraq), is called *successive* (LeMarquand, 1977: 8). Finally, when a river forms a border and also crosses it (as in the case of the Mekong river, that forms part of the border between Laos and Thailand and then runs through Cambodia), it is referred as *mixed* (Toset et al., 2000). For what concerns the two largest Central Asian rivers, the Amu Darya is a mixed river that flows along and across³³ the borders of

³³ Until 1991 the Amu Darya marked the border between the Soviet Union and Afghanistan.

Tajikistan, Afghanistan, Turkmenistan and Uzbekistan, while the Syr Darya is a successive river that flows from Kyrgyzstan through Uzbekistan and Kazakhstan.

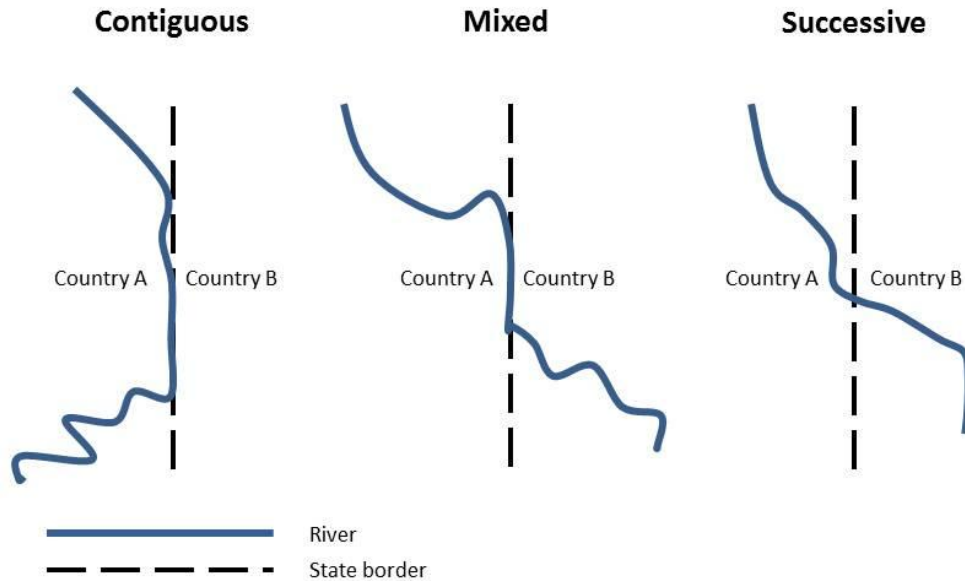


Figure 9: Different types of rivers. Figure constructed by the author based on LeMarquand (1977) and Toset et al. (2000).

Overall, 263 rivers around the world cross the boundaries of two or more nations, and their basin areas comprise about 47 % of the land surface of the earth and include 40 % of the world's population (Wolf, 2007). Some of these international river basins did not exist until 1978 (when their number was 214), while some other disappeared as a result of major political changes that transformed national boundaries in international ones, and vice versa. For instance, the dissolution of the Soviet Union in 1991, or the 1999 war in the former Yugoslavia created new states and numerous new international river basins. Conversely, the unification of East and West Germany and of Southern and Northern Yemen, led to the vanishing of various international river basins (Dinar et al., 2007: 10-11).

The sheer number of international river basins, led to the development of some general principles to govern shared freshwater resources that form the core of international water law.

3.1.2. Principles of international water law

As defined by Akehurst, “International law consists of rules and principles of general application dealing with the conduct of states and of international organizations and with their relations *inter se*, as well as with some of their relations with persons, whether natural or juridical” (Akehurst and Malanczuk, 1997: 1).

International water law (or international watercourse law) is the branch of international law that deals with the use and protection of transboundary watercourses³⁴. The sources of international law and international water law are identical, and they consist of agreements (such as treaties and conventions), decisions of intergovernmental organizations that acquire binding force by treaty, and customary international law (Hodgson, 2010: 3). Nevertheless, and similarly to other environmental resources, there is not a comprehensive legal framework that regulates and ensure the application of the principles of international water law, and since there is nothing such an “international water police”, its greatest limitation is the lack of enforcement (Gleick, 1993; Waterbury, 1997).

According to the UN Food and Agriculture Organization (FAO), between 805³⁵ and 1984 over 3,600 acts (declarations, bilateral and multilateral treaties) relating to international water resources were negotiated and signed (FAO, 1978; FAO, 1984). Until recent times, international water law focused mostly on aspect related to the navigational uses of a river and to the generation of hydroelectricity. Starting in the second half of the 1900s, other matters such as river pollution, water sharing and flood control acquired an increasing importance in the treaties that were being negotiated and signed around the world (Sironneau, 1996).

Traditionally, the use of international rivers has been guided by four, universally recognized, principles: i) the Harmon doctrine or absolute territorial sovereignty; ii)

³⁴ For a comprehensive overview of the principles of international water law and their evolution over time in different societies, refer to the volume *Principles of water law and administration*, edited by Dante Caponera (2007).

³⁵ The first treaty, that concerned the Rhine river in France, was in the form of a unilateral declaration by Charlemagne in 805 that granted freedom of navigation to a monastery (Verzijl et al., 1970: 126).

absolute territorial integrity; iii) the community theory; iv) limited territorial sovereignty or equitable utilization theory (LeMarquand, 1977: 12-13).

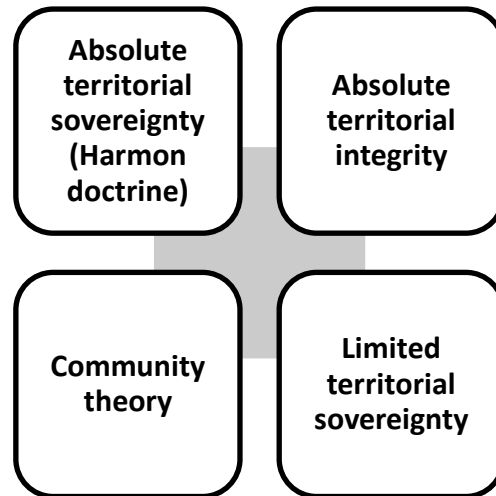


Figure 10: The four traditional principles of international water law. Figure constructed by the author based on LeMarquand (1977).

The Harmon doctrine – that takes its name from US Attorney General Judson Harmon – is considered the most notorious theory in all of international resources law, and it is today identified with the principle of absolute territorial sovereignty. It is based upon an opinion issued by Harmon in 1895 concerning a dispute between Mexico and the US for the use of a shared river, the Rio Grande. The doctrine basically states that “a country is absolutely sovereign over the portion of an international watercourse within its borders. Thus, that country would be free to divert all of the water from an international watercourse, leaving none for downstream states” (McCaffrey, 1996: 549). Although the US, and more generally upstream countries, tended to spouse such an extreme principle, the doctrine was later rejected by the US and it lost relevance as a principle of international water law (Wolf, 1999a).

Conversely, the principle of absolute territorial integrity (or absolute integrity of the river), guarantees the use of the river in an unaltered state, both in terms of water quantity and quality, to the lower riparian. The third principle, the community theory, sets the

obligation to consult the other basin riparians before taking any decision that might affect a river. Finally, the fourth principle, limited territorial sovereignty, gives riparians the right to use a river's water to the extent that no harm is done to the other riparians.

More recently, the International Law Association started to formulate and codify customary international water law, and in 1966 drafted the Helsinki Rules on the Uses of International Rivers (Dellapenna, 2001). In 1972, the United Nations Environment Programme (UNEP), adopted the very broad and general Declaration of the United Nations Conference on the Human Environment³⁶, while twenty years later, in Dublin, the non-binding Dublin Statement on Water and Sustainable Development – a series of principles focusing on the economic value of water – was put together by a team of experts on water issues.

But the key document, adopted in 1997, is the UN Water Convention, which is today considered the most authoritative legislative instrument concerning international water law (Phillips, 2006: 11). Nevertheless, the Convention has not entered into force, since to become legally binding at least 35 nations must ratify it, and as of December 2013 it has received only 33 ratifications³⁷ (UN Treaty Collection [no date]).

The Convention sets three key principles of international water law: i) equitable and reasonable use of shared freshwater resources (United Nations, 1997: Article 5 and 6); ii) the avoidance of significant harm to other states through activities related to an international watercourse (United Nations, 1997: Article 7); iii) prior notification of works which may affect co-riparians in trans-boundary watercourses (United Nations, 1997: Articles 11-19).

³⁶ Whose Principle 21 seems to have relevance also for the general principles of international water law, as it recognizes that “States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.” (United Nations Conference on the Human Environment, 1972).

³⁷ Upper riparians view the Convention as biased in favor of downstream riparians, since they perceive the prior notification principle as an instrument that gives downstream countries a veto power over projects planned upstream (Salman, 2007). For instance, among the only three countries that voted against the Convention, two (China and Turkey) are upper riparians. For what concerns the countries of the Aral Sea basin, only Uzbekistan ratified it (in 2007), with the clear intent of hampering the construction of hydraulic infrastructures in Tajikistan and Kyrgyzstan, as it will be outlined more in detail in Chapter 6.



Figure 3: The three principles of international water law set by the 1997 UN Water Convention.

Figure constructed by the author.

However, and unsurprisingly for comprehensive and broad legal instruments such as this one, the Convention is considered too vague and ambiguous (Biswas, 2001; Lasserre, 2009), and countries still prefer to regulate the utilization of transboundary waters through bilateral or multilateral regional agreements (Phillips, 2006). This seems to be the case also for the countries of the Aral Sea basin, that have tended to solve regional water issues at the bilateral and (more reluctantly) at the multilateral level. Over twenty years after their independence, the Central Asian countries have yet to sign a long-term framework agreement for the sustainable management and sharing of their water resources, and (as it will be shown in the second section of this Chapter) they have coped with transboundary water issues through short-term (usually annual) ad-hoc agreements. In this regard, despite the dissolution of the Soviet Union the key principles of Soviet water law appear to still have a relevance for the Central Asian governments and their attitude towards water resources.

3.1.3. Principles of Soviet water law

Unsurprisingly, Soviet water law was designed to facilitate the accomplishment of the centralised and planned socialist economy. As Fox noted (1971), however, Soviet water law was not flexible enough to facilitate a compromise among the interests of the various water users in the USSR (i.e. the hydroelectric and the agricultural sector), as it did not foresee a consultation mechanism.

The centrality of water in the socialist ideology was already remarked by Karl Marx in the *Capital*: “The soil (and this, economically speaking, includes water) in the virgin state in which it supplies man with necessaries or the means of subsistence ready to hand, exists independently of him, and is the universal subject of human labour” (Marx, 1867: 125). Therefore, being water the universal subject of human activities, the Soviet water law envisaged the use of a water body for different purposes at the same time, closely binding water law to land law. Article 11 of the 1977 Soviet Constitution (also known as the Brezhnev Constitution), recognised that “The land, its minerals, waters, and forests are the exclusive property of the state” (Supreme Soviet of the USSR, 1977). Thus, private ownership of water was not allowed, as the state (i. e. the Soviet people) had an exclusive right of water ownership.

The basic principles for governing the utilization and protection of rivers, lakes, reservoirs and other surface and underground water resources were contained in the *Fundamentals of Water Legislation of the USSR and the Union Republics*³⁸, adopted on 10 December 1970. Also this regulation provides that all waters are under state ownership but it interestingly draws a distinction between the notions of “water” and “water resources”. The former is a natural element, a substance in continuous motion that cannot be property of the state. The latter may become a property as a result of lawful activities, such as drinking water administered by the municipalities (Food and Agriculture Organization of the United Nations, 1983: 103). All water resources in the USSR were considered as “integrated”, meaning that their ownership devolved to a sole entity, the USSR, and not to the Autonomous Soviet Socialist Republics (ASSRs) or the Soviet Socialist Republics (SSRs).

Overall, the two main principles of Soviet water law, namely that i) water remained the exclusive property of the state and that ii) water was inalienable, contrast with the three main principles set by the UN water Convention (equitable and reasonable use of shared freshwater resources, causing no harm and prior notification) (Weinthal, 2004: 254). With the collapse of the USSR, each of the new republics adopted new water laws and water

³⁸ Two other important acts were the resolutions of the Council of Ministers of the USSR “On Strengthening State Control of the Use of Groundwater and on Measures for Its Conservation” of 1959, and that “On Measures for Regulating the Use of and for Strengthening the Conservation of the Water Resources of the USSR” of 1960 (Kolbasov, 1987).

codes. These legal instruments represent a compromise between the state-centric socialist system, and the new trend in water law that recognizes an increasing participation of the public in the management of water resources. This seems relevant, considering that the new national water laws are resource-development oriented and focus on the maintenance of the status-quo, rather than on changes towards integrated water resources management (Caponera, 2007: 82).

3.2. Hydrological and geographical aspects of the Aral Sea basin

Among the basins that emerged recently and as a consequence of a political disarray, there is the one of the Aral Sea (see Figure 11), an international river basin formed by the two largest rivers of Central Asia, the Amu Darya and the Syr Darya. The basin includes the territories of the five former Soviet Socialist Republics (SSRs), Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan – which by convention constitute the Central Asian region –, the territory of Afghanistan and a small part of the territory of Iran³⁹. In ancient times, the two rivers attracted the first Central Asians civilisations. Settlers, who cultivated fertile soils and introduced irrigation techniques, gathered around the Amu Darya (known as the Oxus in ancient Greek chronicles), while nomadic and semi-nomadic people from the steppe lived around the Syr Darya. It is in this area, known as Transoxiana (the area between the Amu Darya and the Syr Darya rivers), that between the sixth and the third centuries B.C. the early protostates and urban centres of Central Asia (such as Samarqand in present-day Uzbekistan, Balkh in Afghanistan, Merv in Turkmenistan and Khojand in Tajikistan) were created (Abazov, 2008: 6).

Ecologically, the basin has three distinct zones: i) the mountains, that consist mainly of the Tyan Shan and Pamir ranges in Kyrgyzstan and Tajikistan, with the highest peaks above 7000 meters⁴⁰ and average precipitation (concentrated in spring and winter) varying between 600–800 mm per year; ii) the deserts, that are formed by the Kara-kum and the

³⁹ Although they are part of the basin, Afghanistan and Iran will not be taken in consideration in this thesis. This is because both countries were not part of the Soviet Union and have not been included in the regional water dialogue over the last decades. While the reasons of this exclusion from regional negotiations are understandable for Iran, whose territory only constitutes 2 % of the basin area, they are more controversial for what concerns Afghanistan, that contributes 8 % of flow generated in the Amu Darya river basin but has never been included in multilateral water agreements and negotiations (Horsman, 2008).

⁴⁰ Including what was the highest mountain in the former Russian Empire and later in the Soviet Union, the 7,495 meter tall Ismail Somoni Peak in Tajikistan (previously known as Stalin Peak, and, after the de-Stalinization process, as Communism Peak).

Kyzil-kum, and that cover most of the basin area, with average precipitation between 80–150 mm per year; iii) the Aral Sea with its deltas (Dukhovnyi and Sokolov, 2003: 2).

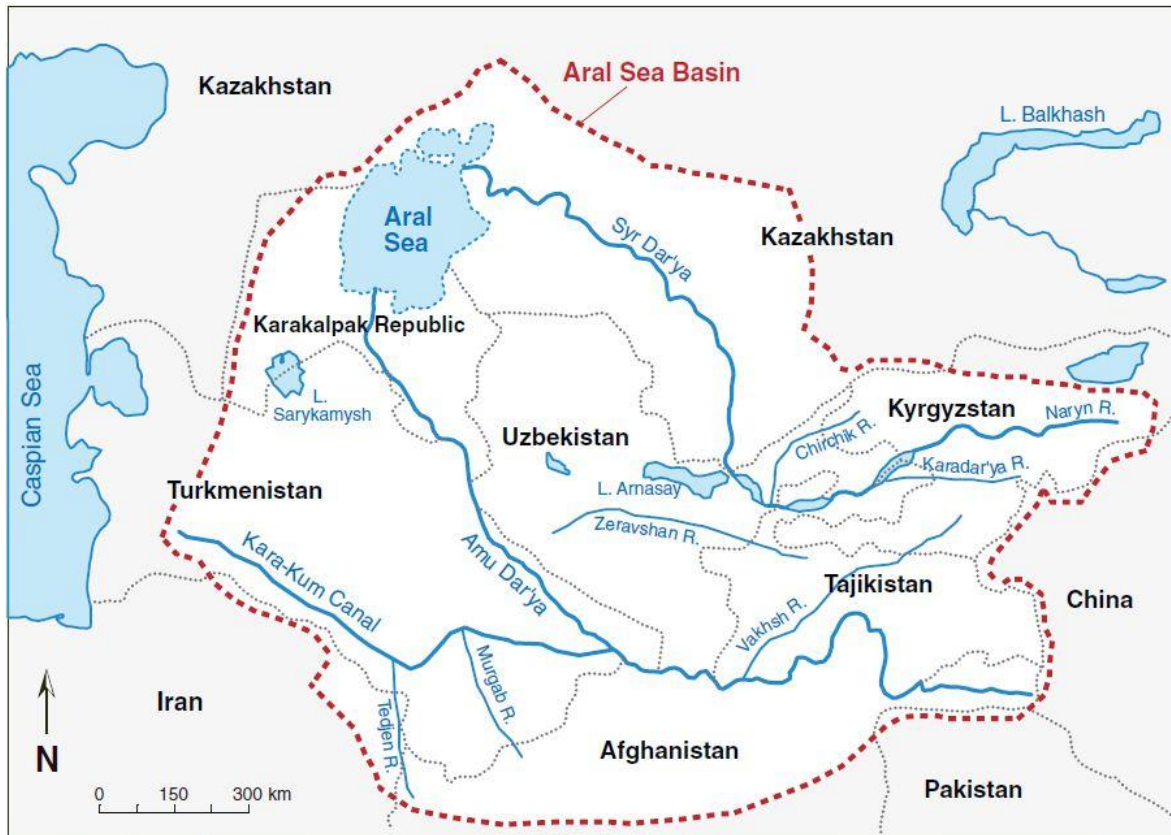


Figure 11: The Aral Sea basin. Source: Micklin (2007).

The Amu Darya river flows along and across the borders of Tajikistan, Afghanistan, Turkmenistan and Uzbekistan, while the Syr Darya river flows from Kyrgyzstan through Uzbekistan and Kazakhstan. The Amu Darya is the largest river in the region in terms of water volume, and the Syr Darya is the longest. Both rivers terminate their course in the Aral Sea. In hydrological terms, these rivers are called exotic, which means that their flow originate in well-watered and cool mountains (the Pamir and Tyan Shan) and then continues to arid areas (the Kara-kum and Kyzil-kum deserts), where the volume of water is substantially diminished by evaporation, transpiration and bed filtration (Micklin, 2000: 7). Therefore, even prior to the modern age of irrigation, the average inflow of the Amu Darya river to the Aral Sea decreased to around 40 km³ from the 62 km³ coming out of the Pamir mountains, while the already considerable lesser flow of the Syr Darya, declined to

around 15 km³ from the initial 37 km³. Some other smaller but still important rivers form the basin, such as the Chu, Talas, Assa and Bugun in the Syr Darya basin, and the Tedjen, Zerafshan and Kashkadarya in the Amu Darya basin. All of these former tributaries no longer flow into the Amu Darya and Syr-Darya rivers (Dukhovnyi and Sokolov, 2003: 3).

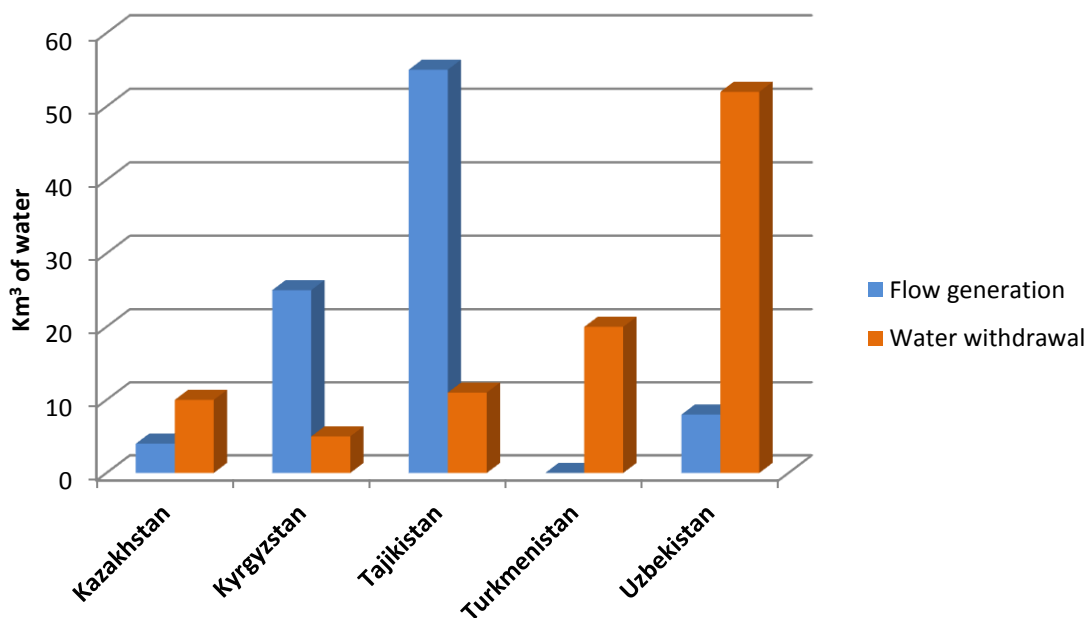


Figure 12: Water flow generation and abstraction (average km³ per year) in the Aral Sea basin. Graph constructed by author based on data from cawater-info.net [no date].

As outlined in Figure 12, upstream Tajikistan and Kyrgyzstan are water-rich, and supply respectively 55 and 25 % of average annual basin river flow, for an aggregate contribution of 80 %, that exceeds by far their water withdrawals. While these countries are net donors to basin water supplies, Kazakhstan, Turkmenistan and Uzbekistan are large net consumers, and due to their vast irrigated areas they withdraw 83 % of the basin water, despite the fact that they contribute to only 14 % of the Aral Sea basin river flow (Micklin, 2000: 8-9). In addition, while Tajikistan and Kyrgyzstan have insignificant oil and gas resources, the downstream countries are in the opposite situation, and for instance Turkmenistan has 4.3 % of the world's gas reserves and Uzbekistan has 0.9 %, while Kazakhstan has 3.2 % of the world's proven oil reserves (Olcott, 2010: 258).

Such difference in water usage between upstream and downstream countries is partly due to the geographical characteristics of the Central Asian states (Kyrgyzstan and Tajikistan are largely mountainous, and therefore not particularly suitable to extensively practice irrigated agriculture), but most of all, to the water management practices that were set under the Soviet Union, and that the newly born Central Asia republics have inherited. Nevertheless, before outlining the Soviet hydraulic mission, it is worth delving into the meaning of water for the Central Asians people and to the tradition that the Soviets have attempted to alter, since this seems to influence the way water is framed and dealt with by present-day Central Asian leaders.

3.2.1. The meaning of water for Central Asian people

In the ancient world the Central Asian region was known with the Greek word Transoxiana, which defines the area between the two “darya” (sea or river in Persian), the Amu and the Syr. In the Muslim world, the region was known as Mawarannahr, which in Arabic means the area beyond the river (Roy, 2000: 1). Water has thus been used to identify a region where, for centuries, generations of people have associated their existence and well-being with water. Besides sustaining livelihood, water has also been used to delineate and separate territories within the region, leading to the creation of three main hydro-historic centres, the khanates of Khiva, Bukhara and Kokand, which correspond to the three oases of Khorezm, Sogdiana and Ferghana (Balland, 1997: 98-99).

The management of water resources is tied with the traditions of Central Asian peoples, and with the use of particular irrigation techniques that allowed the formation of Wittfogelian hydraulic societies in the Mesopotamia of Central Asia (Dolukhanov, 1994). Most notably, the development of the Karez (known in Arabic as Qanat) system over 2000 years ago, made it possible to easily access water and make land arable in hostile environments. The Karez is a system of inclined tunnels that, thanks to gravity, allows bringing underground water to the surface (for more information on the Karez system, see Beaumont et al., 1989). The management of this crucial and sustainable irrigation system has its roots in ancient traditions that have been passed on from one generation to another. The social organization behind the Karez had an important role in defining communal structures in villages, as irrigation systems and water rights have been crucial both to

agricultural production and to social life in the Central Asian society (Eickelman, 1998). However, this was not compatible with the massive Soviet irrigation structures, and eventually, the knowledge necessary to run the Karez was lost and the system was left in a state of abandon.

Moreover, as both Dukhovnyĭ and Sokolov (2003) and Allouche (2005) observe, water has also been historically connected with the two main religions of Central Asia, Zoroastrianism and Islam. Followers of Zoroastrianism⁴¹ worship fire and water (adar and aban), and the Videvdat (the main source for Zoroastrian law) utters the sanctity of water and regulates its uses.

Likewise, also for Islam and its sacred text, the Qur'an, water is at the origin of all life on Earth. From water every living thing was made (Qur'an, 21:30), and the throne of God was laying upon water (Qur'an, 11:7). Water is a God-given gift, one for which humans should be grateful and respectful (Qur'an, 56:68-70). The Islamic law, the Sharia (which in Arabic means the way or path to water, or the law of water), sets some guiding principles on water management based on communal ownership (since water is a gift from God it cannot be owned), and on the fact that everyone should equally benefit from a watercourse (Wickström, 2010). As pointed out by Cummings (2012: 110), while Sharia has no official status in the Central Asian countries and the five regional leaders have declared their states secular, they have nevertheless used Islam as a legitimation tool, integrating it (each one differently) in their state ideologies.

Although the Soviets have attempted to instil among the Central Asian people faith in modernism and in the superiority of Communism (Pearce, 2007), after the collapse of the Soviet Union this effort proved ephemeral. As the Uzbek President Islam Karimov sums it up, "After a period of more than a century of totalitarian dependence, this process [the revival of spiritual values and national self-awareness] initially took quite naturally the shape of the rejection of the recent past" (Karimov, 1997: 85-86). And indeed, the revitalisation of the spiritual values and traditions that were frustrated by the Soviets, such as Islam for instance, led the Central Asian Presidents to often use religion to underline the

⁴¹ Although the number of Zoroastrians in Central Asia declined, Zoroastrianism has been revived in Tajikistan by the President Emomali Rahmon, that refers to Zoroaster as "the first prophet of the Tajiks, whose trace on earth has not been erased by the dust of millennia and the ashes left by countless bloody wars" (Rahmon, 2002: 14). Rahmon thus put Zoroastrianism (along with the cult of Ismail Somoni and the Aryan myth) at the center of an ideological production aimed at reinforcing Tajik nationalism (Marat, 2008a).

pure and sacred nature of water, and consequently present it as a non-negotiable matter, as it will be illustrated throughout this study.

3.3. The Soviet hydraulic mission

While more than twenty years have passed since the collapse of the Soviet Union, Soviet water management practices still have a great influence on Central Asian water politics. From the 1940s until the 1960s, Stalin's Great Plan for the Transformation of Nature (*Stalinskiy Plan Preobrazovaniya Prirody*) and Krushev's Virgin Lands Campaign radically changed agricultural practices in the Soviet Union to meet the growing needs of its population. If, on the one hand, the Soviets managed to bring water and electricity in most of their territory (in line with Lenin's insight "Communism is Soviet power plus the electrification of the whole country), on the other hand, their environmental irresponsibility has been the cause of countless ecological disasters. As Feshbach and Friendly noted (1992: 1), "[w]hen historians finally conduct an autopsy on the Soviet Union and Soviet Communism, they may reach the verdict of death by ecocide. [...] No other great industrial civilization so systematically and so long poisoned its land, air, water and people". And indeed, the desiccation of the Aral Sea is possibly the worst man-made environmental disaster of the twentieth century. The times are long gone since Alexey Butakoff, a Commander of the Imperial Russian Navy, was reporting on his Caspian Tiger sightings in the vicinity of Aralsk (Butakoff, 1853), as today the Aral Sea turned into the Aral-kum, a desert whose soil is known as *solonchak*, a mixture of salt deposits, sand and dust polluted with agricultural chemicals.

The Soviets have not been the first to be fascinated by the ability to dominate nature and use its power to serve the needs of society. Powerful ancient empires, such as the Chinese, Mesopotamian, Egyptian or Maya, used rivers to develop large-scale irrigated areas which contributed to their growth and expansion (Wittfogel, 1957; Molle et al., 2009).

3.3.1. Bringing water to the desert

Thus, between the end of the nineteenth century and the 1970s, hydraulic missions were launched worldwide, including the Soviet Union, where the plan was to make "mad rivers sane" (Gorky, quoted in McCully, 2001: 17). Through its hydraulic mission, the Soviet

hydrocracy pursued mostly two objectives: increase agricultural and electricity production, through respectively large-scale irrigation projects and massive hydropower plants. In Central Asia, the hydraulic mission engendered the construction of large dams and water reservoirs in the mountainous areas of the upstream republics (Kyrgyzstan and Tajikistan) which, together with a complex network of canals, made it possible to practice irrigated agriculture in the plains of the downstream countries (Kazakhstan, Turkmenistan and Uzbekistan), where water intensive agricultural crops such as cotton, rice, and wheat were grown (Rakhmatullaev et al., 2010: 308). This is because the Central Asia climate is excellent for growing cotton and other heat-loving crops, and its thermal conditions (that allow a growing season of 204 to 288 days per year) were the best of anyplace in the Soviet Union (Klotzli, 1994: 6). Moreover, through the construction of dams and canals, the Soviet administrators created a situation that would ensure competition between upstream and downstream countries, thus reinforcing the national distinctiveness of the republics and maintaining a role for Moscow as a dispute settler (O'Hara, 2000: 430).

The first major irrigation projects began in 1939, with the construction of 45 canals, such as the Great, the North and the South Ferghana canals in the Ferghana Valley (Matley, 1967: 294-295). Thanks also to the momentum gained with the Virgin Lands Campaign (launched in the 1950s by Krushev), the total irrigated area in Central Asia increased from 4.5 million hectares in 1965 to 7 million hectares in 1991 (Wegerich, 2008: 73). Overall, over 60 canals divert water from the Amu Darya and the Syr Darya, including the Kara-kum Canal, one of the longest (1,400 km) irrigation canals in the world that taps into Amu Darya to bring water in the Kara-kum desert in Turkmenistan. The expansion of irrigation diminished the inflow from the two rivers into the Aral Sea, eventually leading to the desiccation of what in the 1960s was the fourth's largest inland water body⁴² (Micklin, 2007).

During the same period, the largest Central Asian hydro-electric dams were designed and built, most notably the Toktogul dam on the Naryn River in Kyrgyzstan, and the Nurek

⁴² On this regard, Decree 1110 ("Measures for Radical Improvement of Ecological and Sanitary Situation in the Region of the Aral Sea, Enhancing the Efficiency and Use to Strengthen the Protection of the Water and Land Resources in its Basin") adopted by the Council of Ministers of the Soviet Union in 1988, can be considered as a formal recognition of the disappearance of the Aral Sea. Although too late have any relevant effect, the document specifies annual minimum inflow quota to the deltas of the Amu Darya and Syr Darya in the Aral Sea to try to reverse its desiccation.

dam in Tajikistan. Other projects were started but never concluded, such as the large Rogun and Kambarata dams, whose revitalisation in the 2000s provoked the two regional conflicts that are the centre of this study. These abandoned dam projects were not, however, the only legacy left by the Soviet Union to the new-born republics. As Dukhovnyĭ and Sokolov noted:

While Tsarist Russia left local water law unchanged, especially as it applied to communal participation in works related to the operation, maintenance, renovation, and rehabilitation of irrigation nets. The institution of “aryk aksakals” and “mirabs” – water managers elected by communities – was put on a sound basis. Seventy years of Soviet power changed these principles by creating a strict and rigidly controlled system of centralized water management that worked in a top-down manner. [...] This system made it possible to deliver and allocate water successfully by means of a huge water infrastructure with vast operational costs, covered at the expense of the federal government at inter-farm and up to on-farm levels, and which also included drainage. But this water system suffered from two immense shortcomings. First, the opinions of water users and consumers were not taken into consideration; as a result, the transition of agriculture and the Central Asian economy in general to market principles showed many water users to be insolvent and not self-sufficient. Second, environment considerations were largely ignored in favor of the needs of water users; hence ecological and sanitary requirements, along with the environmental needs of deltas, Priaralye, and the Aral Sea itself, were ignored and the scale of the problems was understated. (Dukhovnyĭ and Sokolov, 2003: 9)

Besides creating a huge water distribution and irrigation structure, the Soviets also imposed a centralised system to manage the region’s natural resources that had the downstream countries providing the upstream states with oil and gas, in exchange for water releases in summer to irrigate their cotton fields. These regional schemes – centrally managed by the Soviet Ministry of Water Management (*USSR Minvodkhoz*) – regulated seasonal water requirements and distribution among the Republics (Vinogradov and Langford, 2001), while allowing the upstream countries to keep water in their reservoirs in winter, instead of using it to produce hydroelectricity, as their energy needs were already met. Water allocation arrangements were based on two complementary components: i) centrally controlled water allocation quotas for each SSR, and ii) centrally planned deliveries of oil and gas to the Kyrgyz and Tajik SSRs in winter (Libert et al., 2008: 11).

More precisely, the Ministry of Water Management of the Soviet Union allocated the water resources of the Amu Darya and Syr Darya through the adoption of two internal

decisions: Protocol 566⁴³ for the Amu Darya, and Protocol 413⁴⁴ for the Syr Darya (see Table 2). Giving priority to the cultivation of cotton, fodder, fruits and vegetables in the downstream countries (The World Bank, 2004: 8), Protocol 566⁴⁵ allocated 48 % of the total surface flow of the Amu Darya river to Uzbekistan, 36 % to Turkmenistan, 15 % to Tajikistan and 0.6 % to Kyrgyzstan, while Protocol 413 allocated 46 % of the total surface flow of the Syr Darya river to Uzbekistan, 44 % to Kazakhstan, 8 % to Tajikistan and 2 % to Kyrgyzstan. To make sure that water allocation were respected, in 1986 the *Minvodkhoz* also created two river basin organizations, the BVO Syr Darya and the BVO Amu Darya.

	Water distribution limits in the Amu Darya basin (Protocol 566)		Water distribution limits in the Syr Darya basin (Protocol 413)	
	Billion cubic meter per year	Share %	Billion cubic meter per year	Share %
Kazakhstan	-	-	10	44
Kyrgyzstan	0.4	0.6	0.5	2
Tajikistan	9.5	15.4	1.8	8
Turkmenistan	22	35.8	-	-
Uzbekistan	29.6	48.2	10.4	46
Total	61.5	100	22.7	100

Table 2: Water Distribution Limits in the Amu Darya and Syr Darya basins according to Protocol 566 and Protocol 413.

Unsurprisingly, when such a centralised and interconnected system vanished along with the Soviet Union, tensions arose between the new-born independent republics over the management and sharing of their natural resources (O’Hara, 2000).

⁴³ Protocol 566: Improvement of the Scheme on Complex Use and Protection of Amu-Darya Water Resources by Scientific & Technical Council, Ministry of Land Reclamation and Water Management of the Soviet Union, September 10, 1987.

⁴⁴ Protocol 413: Improvement of Scheme of Complex Use and Protection of Water Resources of Syr-Darya Basin, February 7, 1984.

⁴⁵ With the Protocol 566, the Soviets deliberately left Afghanistan out of water allocation in the Amu Darya, although the country is part of the river basin. As Horsman (2008: 66) observed, Afghanistan – that in 1977 had sent, with no results, a delegation to Tashkent to arrange a water sharing agreement – was not consulted in this occasion. Therefore, the 1987 distribution limits ignored Afghanistan’s claims, and assigned to the country a quota that was less than what it was using in 1965 (3,850 million m³).

3.4. The water/energy nexus

Water being not scarce but unevenly distributed (Thorez and Thorez, 2004), the matter of discontent among the countries of the Aral Sea basin is on water quantity rather than on water quality. Driven by the need to cooperate on water issues (and perhaps still under-shock for an independence that was not expected nor wanted⁴⁶), in February 1992 the Central Asian leaders hurriedly⁴⁷ signed the Agreement on Cooperation in the Area of Joint Management, Utilization and Protection of Interstate Water Resources (also known as the “Almaty Agreement”). This agreement is significant because its main effect was to leave Soviet water allocation unchanged, thus continuing to favour the downstream republics. Besides preserving the allocations contained in Protocol 566 and Protocol 413, the Almaty Agreement also maintained the two BVOs originally created by the Soviets. What changed, though, was that with independence the upstream states began paying market prices for the oil and gas that they imported from the downstream countries, while before, their energy needs were met by the low-cost imports centrally administered by Moscow. Therefore, instead of operating their large water reservoirs in irrigation mode, the upstream states now had an interest in storing their water in summer and use it to produce cheap hydroelectricity in winter⁴⁸ (McKinney 2004; Allouche, 2004), thus leading to water shortages in the downstream countries during summer, and to flooding in winter (as for instance in the Arnasai depression in Uzbekistan), since water was released when it was not needed. Moreover, Tajikistan’s and Kyrgyzstan’s inability to pay for gas and oil imports resulted in frequent energy cuts and in recurrent energy crises.

⁴⁶ As Mandelbaum noted, the five Central Asian countries had independence thrust upon them; they were not ready nor particularly satisfied with the political earthquake caused by the collapse of the Soviet Union. “In none had there been popular agitation for secession. None of their leaders sided, during the abortive coup of August 1991, with the forces of Boris Yeltsin, whose victory in the confrontation with the coup’s perpetrators was the deathblow of the Soviet Union (Mandelbaum, 1994: 2).

⁴⁷ The Almaty Agreement was the first international multilateral agreement over water signed in the Soviet successor states (Weinthal, 2006: 8).

⁴⁸ Also, since fossil fuel prices quickly increased after independence, households in Tajikistan and Kyrgyzstan switched from fossil fuel fired heating to electric heating, thus increasing winter electricity demand.

	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan
Population, total (million) (2012)	16.8	5.6	7.6	5.1	29.8
Surface area (sq. km)	2,724,900	199,949	142,550	488,100	447,400
Renewable internal freshwater resources, total (billion cubic meter) (2011)	64	49	63	1	16
Renewable internal freshwater resources per capita⁴⁹ (cubic meter) (2011)	3,886	8,873	8,120	275	557
Annual freshwater withdrawals, total (billion cubic meter) (2011)	21.1	10.1	11.5	28	56
Annual freshwater withdrawals, agriculture (% of total freshwater withdrawal) (2011)	66	94	91	94	90
Electricity production from hydroelectric sources (billion kWh) (2011)	7.9	14.1	16	n.d.	10.2
Electricity production from hydroelectric sources (% of total) (2011)	9.1	93.3	98.8	0	19.5

Table 3: Key data on water availability and usage in Central Asia. Table constructed by author based on data from <http://data.worldbank.org>.

⁴⁹ To put this in the global context, in 2011 the amount of renewable internal cubic meter of freshwater available per person per year in Canada was 82,647, in the United States 9,044, in Italy 3,005, in India 1,184, in Morocco 905, in Libya 115, in Israel 97 and in Egypt 23.

The incompatibility between water demands of irrigation and hydropower, also known as the water/energy nexus, gave rise to a tense confrontation between upstream and downstream states on the use and control of the region's water resources (Bohr, 2004), leading David Smith to write that “nowhere in the world is the potential for conflict over the use of natural resources as strong as in Central Asia” (1995: 351). Similarly, several scholars have framed regional water issues in Central Asia as a predominantly conflictual matter (Klotzli, 1994; Shalpykova, 2002; Sievers, 2002; Spoor and Kutrov, 2003; Allouche, 2004; Abbink et al., 2009; Bernauer and Siegfried, 2012), and the International Crisis Group has repeatedly warned that the countries' tendency to view water/energy issues as a zero-sum game is a constant source of tension (ICG 2002; 2007; 2011). And indeed, Central Asian leaders have often portrayed water as an almost non-negotiable matter, as a God-given gift with a nationalistic-charged meaning (Allouche, 2005). Politicians in the Aral Sea basin have tended to securitize water issues, “taking them out of the normal domain of technical management and placing them in the secret and closed domain of security officials” (Buzan et al., 1998: 24).

Yet, before moving to the analysis of interstate relations in the field of water, it is useful to further delve on the institutional setting that emerged after 1991 and on the main agreements that have been signed by the Central Asian governments to manage their shared resources. Since regional institutions and agreements have not been successful in solving water problems in Central Asia, it seems useful to understand the reasons of this failure.

3.5. A weak institutional framework

More than two decades have passed since the Central Asian states gained independence and became responsible for the management of their natural resources. However, as of 2013, a long-term sustainable solution to deal with regional water management issues has yet to be found. Nevertheless, soon after independence⁵⁰ the Central Asian countries began

⁵⁰ It is worth noting that, as successor states of the Soviet Union, the Central Asian republics also inherited the legal obligations of the agreements previously concluded by the Soviet administration with other countries, such as for instance, Afghanistan or Iran. According to the 1978 “Vienna Convention on Succession of States in respect of Treaties”, a succession of States does not as such affect “rights and obligations relating to the use of any territory, or to restrictions upon its use” (Art. 12), nor “[a] boundary established by a treaty; or (b) obligations and rights established by a treaty and relating to the regime of a boundary” (Art. 11).

negotiating a large number of agreements on the management of transboundary waters, both of a binding and of a semi-formal nature⁵¹.

The key agreement is the abovementioned 1992 Almaty Agreement, whose main effect was to continue allocating water resources as set by Soviet Protocols 566 and 413⁵² (see Table 2). This decision was important, because the Almaty Agreement is still the main reference for what concerns water allocation, which since then were never renegotiated nor readjusted, as they became an almost untreatable topic in high-level water negotiations. The Almaty Agreement also established the Interstate Commission for Water Coordination⁵³ (ICWC), a technical authority set to ensure the implementation of quotas and to control the activities of the two river basin organizations (BVO Syr Darya, based in Tashkent, and BVO Amu Darya, also based in Uzbekistan, in Urgench). The Agreement, however, lacks an effective dispute resolution mechanism. While Article 13 states that “All disputable matters are solved by the heads of water management agencies of the Republics (i.e. Ministers of Water), and, if needed, with participation of a representative of the party concerned”, it does not specify which measures should be taken if such disputes could not be solved (Vinogradov and Langford, 2001: 13).

Under the changing geopolitical and economic conditions that marked the post-independence period, observance of the water allocation proved unfeasible, and the republics ended up signing annual ad-hoc bilateral or trilateral barter agreements regarding water and energy exchanges. These barter agreements, which aimed at compensating water release from upstream countries in summer with imports of electricity, natural gas, fuel oil

⁵¹ Declarations and statements constitute an additional instrument that the Central Asian Presidents use to define general principles and directions of water cooperation. Although of a non-binding nature, these “soft-law” tools have a high political value. Several declarations and statements were issued between 1995 and 2009 regarding the improvement of the environmental, economic and social conditions in the basin. The Nukus Declaration (September 1995), focused on sustainable development of the Aral Sea Basin and on financial obligations of the states to ICAS and IFAS. The Almaty declaration (February 1997), declared 1998 as the Environmental Protection Year in Central Asia and introduced the idea of proclaiming Central Asia a nuclear-free zone. The Ashgabat Declaration (1999) stressed the importance of joint actions to address shared environmental problems in the basin and promote better quality of life for people living in the Aral Sea Basin, while the Dushanbe Declaration (2002) concentrated on improving information exchange on water and other natural resources (Menga, 2012).

⁵² Another consequences of this agreement was that upstream countries’ plans to expand their irrigated land (Kyrgyzstan wanted to increase its irrigated land total by over 400,000 hectares, Tajikistan by between 40,000-140,000 hectares) had to be downsized (Micklin, 2000: 44).

⁵³ Whose full name is the “Interstate Coordinating Water Management Commission on the problems of regulation, rational use and protection of water resources from interstate sources.

and coal from downstream countries in winter, often contained artificial and non-transparent prices that hindered their efficiency (The World Bank, 2004: 8).

In 1993, the five countries signed the “Kyzyl-Orda Agreement”⁵⁴. Though the treaty was non-binding and did not provide any dispute resolution mechanism, it is significant because it created two bodies: the Interstate Council on the Aral Sea Basin (ICAS), with the task of coordinating projects and set policies, and the International Fund to Save the Aral Sea (IFAS), a political authority aimed at managing financial resources provided by member states and donors (Dinar et al, 2007: 302). These newly established regional institutions had to coordinate the Aral Sea Basin Programme (ASBP), an action program launched in 1994⁵⁵ to prepare a general strategy for water distribution, rational water use, and protection of water resources in the Aral Sea Basin. ICAS and IFAS merged in 1997 under the name of IFAS⁵⁶. The working body of IFAS is its Executive Committee (EC IFAS), formed by two representatives for each of the five states. The mission of the EC IFAS – that has gradually been enlarged, and particularly at the 2009 IFAS Summit in Almaty – is to serve as a regional platform for dialogue and coordination on environmental issues (including water) among the countries of the Aral Sea basin. The chairmanship of IFAS rotates among the five Presidents, and the location of the EC IFAS varies accordingly⁵⁷.

⁵⁴ “Agreement on joint activities in addressing the Aral Sea and the zone around the Sea crisis, improving the environment, and ensuring the social and economic development of the Aral Sea region”.

⁵⁵ In the following six years, the five Central Asian Presidents met at least once a year to further discuss and develop the ASBP (Roll et al., 2006: 8).

⁵⁶ Initially, the five member states were expected to contribute with 1 % of their annual state expenses to fund the functioning of IFAS. However, since it became clear that none of the states was fulfilling its financial commitments, contributions have been lowered to 0.3 % of their annual state expenses for the downstream countries, and 0.1 % for the upstream ones (Sehring, 2012).

⁵⁷ The EC IFAS has been located in Almaty (1993-1997), Tashkent (1997-1999), Ashgabat (1999-2002), Dushanbe (2003-2009), Almaty (2009-2012) and currently in Tashkent. In 2005, the planned move to Bishkek did not take place due to the political turmoil that led to the ousting of Askar Akaev.

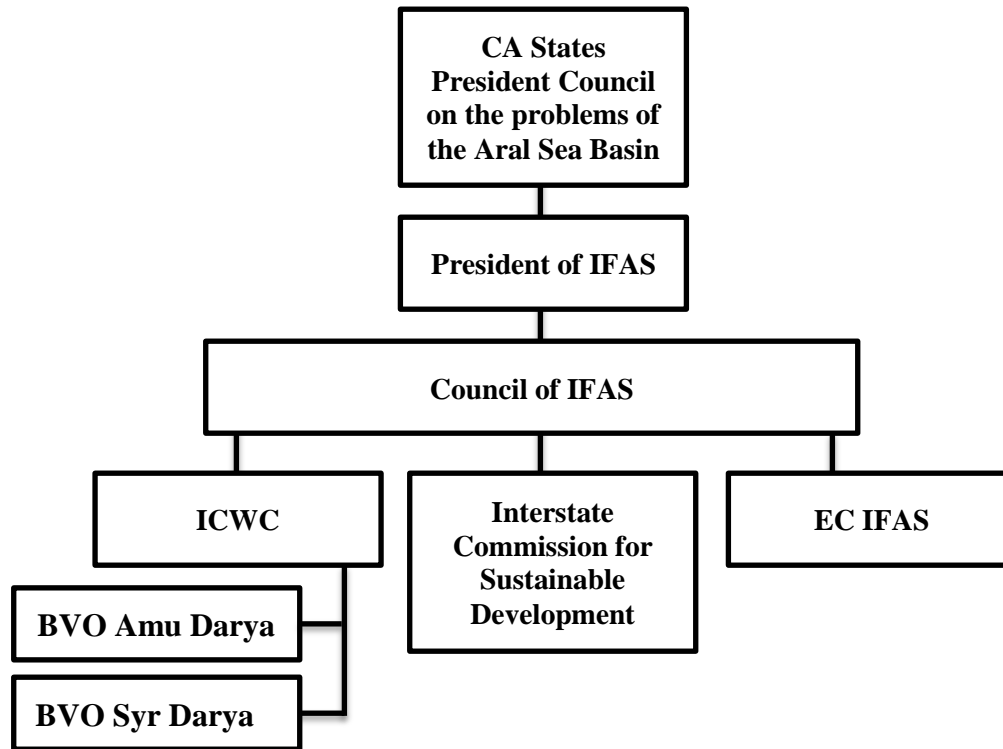


Figure 13: Simplified overview of the organizational structure of IFAS. Constructed by author based on information from <http://www.ec-ifas.org>.

This institutional framework seems however unfit to manage Central Asia’s water resources. As Mosello (2008) noted, the main reasons for this inappropriateness are limited mandates, interstate rivalries and disputes within the same institutions, lack of technical expertise, insufficient financing and the absence of enforcement mechanisms. And indeed, the inability to find a solution to the recurrent seasonal water/energy crises, and the Central Asian Presidents’ tendency to take decisions unilaterally rather than discuss them at multilateral forums, seems to confirm the failure of this framework, as it will be illustrated in the second section of this chapter.

Another significant agreement is the 1998 “Syr Darya Agreement”⁵⁸, signed by all countries except Turkmenistan (not part of the Syr Darya river basin). This treaty seems an important improvement over the previous ad-hoc arrangements, as it shows a desire to

⁵⁸ “Agreement between the Government of the Republic of Kazakhstan, the Government of Kyrgyz Republic, the Government of the Republic of Tajikistan, and the Government of the Republic of Uzbekistan Concerning Use of Water and Energy Resources in the Syr Darya River Basin”.

adhere to international law and precedents, and recognizes the need to compensate upstream Kyrgyzstan for its energy losses due to its unexploited hydroelectric production. This compensation should be paid by Uzbekistan and Kazakhstan in the form of equivalent energy sources (bartering electricity, gas, coal and fuel), or in monetary terms. However, implementation of the agreement is difficult, since it does not take into account water variability in dry years (McKinney, 2004: 211-212). Since the riparians of the Syr Darya had to annually negotiate the exact terms of the barter arrangements, including the actual volumes of water releases and the amount of compensation (The World Bank, 2004: 10), tension became the norm and cuts in gas deliveries from Uzbekistan to Kyrgyzstan have been frequent (Weinthal, 2006).

A similar approach was adopted with the “Chu and Talas Agreement”⁵⁹, signed by the governments of Kazakhstan and Kyrgyzstan in 2000. This arrangement is perceived by some observers (Granit et al., 2010) as the way forward in Central Asian water politics, as it is the only one that commits the downstream country (Kazakhstan) to pay upkeep costs for the use of shared water facilities to the upstream country (Kyrgyzstan). Such arrangement clearly contrasts with the traditional water management mechanisms in the Syr Darya basin, and could signal a shift in favour of Kyrgyzstan’s requests (see paragraph 3.6.2) to receive a contribution from downstream countries to the maintenance of upstream water installations (Weinthal 2006: 24). The Chu and Talas Agreement remains, however, an isolated case, and the numerous deals signed so far by the five republics have not managed to effectively cope with the exchange of natural resources in Central Asia, nor to solve conflictual relations in what is an extremely interconnected setting.

Based on the critical aspects outlined so far, the following reviews in detail the evolution of interstate water relations among the Central Asian countries in the period 1991-2011, first providing the general picture and subsequently focusing on bilateral relations between Tajikistan and Uzbekistan, and Kyrgyzstan and Uzbekistan, as they reflect the debate on the Rogun and Kambarata dams that will be analysed in the next chapters.

⁵⁹ “Agreement between the Government of the Kazakh Republic and the Government of the Kyrgyz Republic on the Use of Water Management Facilities of Intergovernmental Status on the Rivers Chu and Talas”.

3.6. Twenty years of water relations

The following is based on the chronology of general interstate relations in the field of water in the Aral Sea basin. The chronology contains around 200 events (or speech acts), but not all of them will be reported here, in an attempt of not making this section too descriptive. The chronology is however available in full in Annex 2, while Annex 1 explains in detail how these data were put together and what were the reasons behind this collection.

3.6.1. Coexisting conflict and cooperation

What immediately emerges is that relations among the countries of the Aral Sea basin have been marked by a coexistence of conflict and cooperation. Over the years, the numerous agreements and declarations of friendship issued by the Central Asian Presidents have been flanked by extremely conflictual events, such as cuts in gas and water supplies or the deployment of troops at the border. In terms of speech acts analysis, commissive speech acts, through which the countries express a commitment to engage in future actions, are thus sided by directive ones, through which something is demanded.

This seems to be in line with the latest tendency in hydropolitics, which takes conflict and cooperation as two connected and coexisting phenomena (see among others, Postel and Wolf, 2001; Wolf et al., 2003; Mirumachi and Allan, 2007; Zeitoun and Mirumachi, 2008). Cooperation is not necessarily associated with agreements or treaties and not all cooperation is good, and on the same way, tensions may sometimes lead to reduction of conflict and not to its exacerbation⁶⁰. The effectiveness of cooperation may be influenced by a particular political context where there is a cooperation of tokenism, or where cooperation is only happening at the technical level⁶¹.

And indeed, besides the key agreements mentioned previously (the 1992 Almaty Agreement, the 1993 Kyzyl-Orda Agreement and the 1998 Syr Darya Agreement), many more have been signed in these two decades. Most of them are annual operation agreements (AOAs), that are used by the regional governments to barter water for energy. The fact that

⁶⁰ For instance, as Zeitoun (2007) notes, in the Jordan River basin there is evidence of both conflict and cooperation happening simultaneously, or at least, where someone sees cooperation someone else may see conflict, what he calls the ‘cooperation versus conflict paradox’.

⁶¹ This approach is clearly in contrast with the one of the UNDP, according to which “it makes sense to promote and support cooperation of any sort, no matter how slight” (UNDP, 2006: 228).

the Central Asian countries resort to these short-term instruments (that solve the problem only temporarily), is perhaps the best indicator of the mistrust that dominates interstate relations, and of the absence of a genuine political will to reach a compromise. Moreover, these AOAs are often hurriedly signed in the depths of winter and summer, as a response to an on-going crisis, and not to prevent its occurrence.

As an example, in 2004 five AOAs were signed between January and July. In January, representatives of Kazakhstan, Kyrgyzstan, and Uzbekistan met in Shymkent⁶² to discuss measures to prevent flooding from the Chardara dam, a large water reservoir on the Syr Darya River in Kazakhstan, which forms part of the Kazakh-Uzbek border. The parties reached an agreement under which Kazakhstan committed to supply coal and fuel to Kyrgyzstan, while Kyrgyzstan decided to reduce its hydroelectric production and Uzbekistan agreed to use its nearby Arnasai Reservoir to lower the water level in the Chardara dam (RFE/RL, 2004). A month later, also Tajikistan agreed to reduce its discharges from the Qayraqqum reservoir, to ease pressure on the Chardara and put an end (at least for the year) to the floods that were hitting several villages near the Kazakh-Uzbek border (RFE/RL, 2004). Then, in July of the same year, when regions in Southern Kazakhstan badly needed water for their irrigated crops, Kyrgyzstan agreed to increase water discharges from the Toktogul reservoir, and in exchange Kazakhstan bought over 1 billion kWh of Kyrgyz hydroelectricity (BBC Summary of World Broadcasts, 2004a). Additionally, also Uzbekistan agreed to increase water releases from the Syr Darya river to the Chardara reservoir (BBC Monitoring Central Asia Unit, 2004). Overall, around forty AOAs were signed in the period 1991-2011.

In addition to these barter agreements, the Central Asian governments repeatedly reaffirmed their friendship, issuing joint communiqués and holding talks (mostly at the bilateral and trilateral level) to increase cooperation in the management and sharing of natural resources. It is however clear that an unfriendly approach prevails in the relations between the basin riparians and that these cooperative events are fundamentally ineffective, as they only solve the most pressing matters while leaving the underlying conflict unresolved. Frequently the AOAs were signed following situations of extreme tension, with

⁶² A city located in Southern Kazakhstan, not far from Kyrgyzstan and Uzbekistan.

Uzbekistan – the country with the largest military apparatus of Central Asia – that often threatened to use force, and the upstream countries that used water as a bargaining tool.

While over the last two decades cuts in water and gas supplies have been common, in 1997 regional relations reached one of their lowest points. In January, Kyrgyzstan reduced the amount of flow leaving the Toktogul reservoir and entering into Uzbekistan (Hanks, 2010: 88; Muzalevsky, 2010). As a response, Uzbekistan cut off 70 % of the water flowing in downstream Kazakhstan⁶³, threatening 100,000 hectares of irrigated corn and cotton crops and prompting a riot by Kazakh farmers. Moreover, in an attempt to intimidate the Kyrgyz government, Uzbekistan deployed 130,000 troops near its border with Kyrgyzstan in the Ferghana Valley (Hogan, 2000). The crisis was eventually averted following negotiations among the countries, although later in 1997 Kyrgyzstan threatened to cut off electricity and water supplies to Kazakhstan, which failed to honour agreed energy transfers and pay for previous deliveries (BBC Summary of World Broadcasts, 1998). These events are emblematic of the profound intertwining of the water and energy sectors in Central Asia, where a coordinated approach to the management of shared natural resources is essential.

Similar tensions are also common in the Ferghana valley (see Figure 14), a region shared by Kyrgyzstan, Tajikistan and Uzbekistan that includes myriad enclaves and exclaves, and that has the highest population density of Central Asia⁶⁴. Border negotiations in the Ferghana Valley are extremely complicated, and so is the allocation of water resources. In 2008, 150 Tajik residents of Isfara (in Tajikistan's Soghd province) crossed the border into Kyrgyz Batken Region to try to destroy a dam erected by the Kyrgyz authorities that cut them off from water sources. While the Tajiks complained that the dam was situated in an area where the border was still unsettled, Kyrgyz authorities countered that the structure was inside Kyrgyzstan, and they mobilised their border guards to prevent the demolition attempt (Rosario, 2009). The potential bloodshed was eventually avoided thanks to a provisional agreement to open the dam and replenish the Tajik canals (Khamidov, 2008).

⁶³ For what concerns the Toktogul reservoir, Kyrgyzstan is the furthest upstream country, Uzbekistan the midstream and Kazakhstan the furthest downstream.

⁶⁴ Population density in the Ferghana Valley on average is 360 persons per square kilometer and reaches 550 in some areas, while the average density for the whole Central Asia is of 14 persons per square kilometer. More than ten million people live in the Valley, a sixth of the entire population of Central Asia. For more information on the Ferghana Valley see Starr et al. (2011).

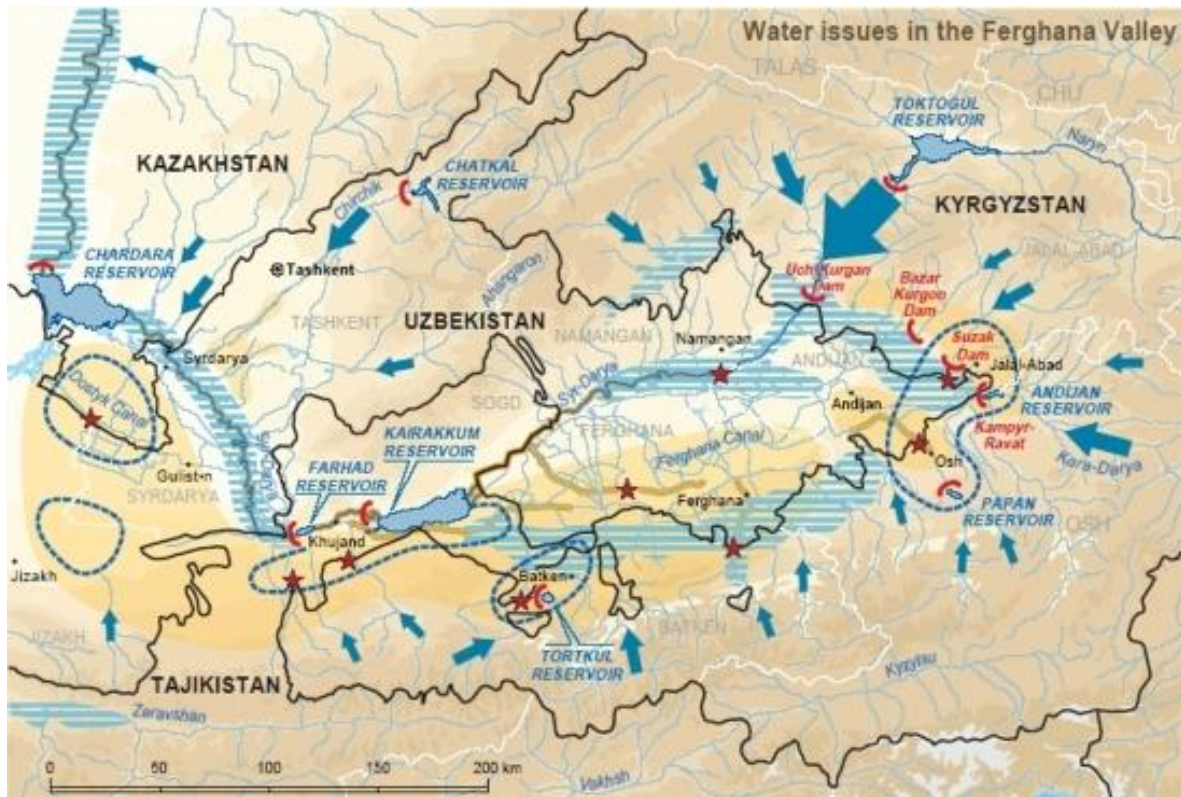


Figure 14: Water issues in the Ferghana Valley. Source: Philippe Rekacewicz, UNEP/GRID-Arendal (http://www.grida.no/graphicslib/detail/water-issues-in-the-ferghana-valley_108d).

3.6.2. Three stages of regional relations

What emerges from the data in the timeline is that, overall, regional relations in Central Asia have had three different and evolving phases: i) the period 1991-1996, marked by the signing of numerous multilateral agreements on water sharing; ii) the period 1997-2006, in which the Central Asian countries have started to negotiate bilateral and trilateral AOAs and adopted a more individualist attitude towards the management of shared water resources; iii) the period 2007-2011, in which the revitalization of large-scale hydroelectric projects in the upstream countries led to the gradual deterioration of interstate relations, thus becoming the main source of regional tensions.

Though the evolution (and degradation) of regional water relations has mostly political motivations, it is important to note that the high seasonal and yearly variability in the water flow of both the Amu Darya and the Syr Darya seems related to this trend. While the water flow was abundant in the period 1991-1997 (Rahimov, 2009), it started to diminish in the following years, and for instance in 2000 and 2001 Central Asia was hit by the worst

drought over the last 95 years (Wegerich, 2002). However, the water flow is only a fluctuating variable that can at most exacerbate existing problems, which have their roots in ineffective regional agreements and with an unsatisfying water allocation scheme, as demonstrated by the proliferation of AOAs.

Therefore, starting in 1997 the Central Asian republics changed their approach to the management of shared water resources, opting for an individualistic rather than collectivistic tactic. All Central Asian states have adopted internal laws that recognize water as national asset and as a crucial resource to sustain social and economic development. As Bektur Sakiev effectively sums it up:

According to clause 4 of Kazakhstan's Water Code, "the State owns the water in Kazakhstan"; clause 4 of Tajikistan's Water Code states that "the State owns all water in the Republic of Tajikistan in accordance with its Constitution"; as clause 3 of Uzbek Law "On Water and Water Use" states "water is the state property – national treasure of Uzbekistan. The water must be used rationally and is protected by the State". Clause 5 of Kyrgyzstan's water law declares that "the State owns the State water fund of Kyrgyzstan". (Sakiev, 2009: 85)

The 1997 Kyrgyz edict⁶⁵, in particular, was the first to demand compensation for revenues lost from releasing water downstream to Uzbek farms instead of using it to generate hydroelectricity (Hogan, 2000). This is significant, because the edict set a new attitude towards water among the two upstream countries, which started to view the resource as a commodity that can be traded and from which they can profit, also because they are not well-endowed with other natural resources. Bishkek reiterated its intentions in 2001, through the adoption of the "Law of the Kyrgyz Republic On Inter-State Use of Water Objects, Water Resources and Water Economy Constructions". For what concerns Kyrgyz rivers that flow to other countries, Article 3 states that the following principles apply:

Recognition of state property rights for water objects, water resources and water economy constructions within its territory; Recognition of water as a type of natural resources that has its economic value within all competitive types of use and it's a commodity; Chargeable water use within international water relations. (Legislative Assembly of the Kyrgyz Republic, 2001)

⁶⁵ Adopted by the then President of Kyrgyzstan Askar Akaev in October 1997.

The Kyrgyz water law is inspired by Principle 4 of the 1992 Dublin Statement on Water and Sustainable Development, which is titled “Water has an economic value in all its competing uses and should be recognized as an economic good” (The Dublin Statement on Water and Sustainable Development, 1992). As Heltzer (2003) observed, the accompanying language of the law is such that rather than setting a water price, this legal instrument seems intended to force cash payment for maintenance of infrastructures and the loss of hydropower generation during the winter months. As the then Kyrgyz Prime Minister Kurmanbek Bakiev commented, the 2001 water law has to be considered a compensation for Kyrgyzstan’s losses, as the country uses less than 25 % of the water in its reservoirs while its “neighbors don't pay anything for the water they get” (RFE/RL, 2001).

The law caused the prompt opposition of Uzbekistan and Kazakhstan, that argued that international water law⁶⁶ does not allow profiting from water nor charging for shared water (Dinar, 2005: 152), which also goes against some of the basic tenets of Islam. Another consequence of the water law was that a few months after its adoption, in October 2001, the Uzbek government shut off natural gas deliveries to Kyrgyzstan (Cagnat, 2001; Khamidov, 2001; Hanks, 2010), resulting in serious energy shortages for the remaining winter months. Perhaps more importantly, the law lacked an implementation mechanism and became contested also within Kyrgyzstan itself⁶⁷, thus resulting in no real efforts from the Kyrgyz government to put it into action⁶⁸ (Sehring, 2009). Thus, the Kyrgyz government stepped back from its original position, asking the downstream countries to only share maintenance costs for Kyrgyz reservoirs and canals (similar to the mechanism set out by the Chu and Talas Agreements).

⁶⁶ And indeed, while on the one hand Principle 4 of the 1992 Dublin Statement inspired the Kyrgyz water law, on the other hand it also acknowledged that “Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources.” (The Dublin Statement on Water and Sustainable Development, 1992).

⁶⁷ As Jennifer Sehring (2009, 119-120) observed, within Kyrgyzstan the law was highly debated, and was sometimes referred to as *zakon gaspodina Usubaliev*, the law of Mr. Usubaliev. This is because the law was commonly associated with Turdakun Usubaliev, the former First Secretary of the Kyrgyz Communist Party that actively lobbied for water pricing in independent Kyrgyzstan.

⁶⁸ However, even if the Kyrgyz law did not enter into force, the legitimacy of compensation mechanisms has been already acknowledged by the Kazakh government, that in 2000 agreed to share maintenance costs for Kyrgyz reservoirs with the above mentioned Chu and Talas Agreement.

As the International Crisis Group observed (2002: 17), on this issue Kyrgyzstan has more bargaining power than Tajikistan. This is because the flow of the Syr Darya being more regulated by reservoirs than that of the Amu Darya, Kyrgyzstan is potentially in a position to cut water supplies to the downstream countries for a considerably longer period of time than Tajikistan. If Tajikistan wants to use water as a bargaining tool (and charge downstream countries for the water it releases), it needs to complete the Rogun hydroelectric plant (see Chapter 4), that with its massive reservoir would give the Tajik government full control of the Amu Darya water flow.

On the other hand, the construction of large reservoirs can have significance also for the downstream countries, and especially for those that are midstream: Turkmenistan on the Amu Darya river basin, where the furthest downstream country is Uzbekistan and Uzbekistan on the Syr Darya river basin, where the furthest downstream country is Kazakhstan. Through the construction of large reservoirs, Turkmenistan and Uzbekistan can use water as a strategic tool increasing their bargaining power towards the furthest downstream states, and more importantly, they can decrease their dependence from the upstream republics, since they can use the water stored in their reservoirs as a buffer whenever the water flow arriving from Tajikistan and Kyrgyzstan diminishes. Hence, both Turkmenistan and Uzbekistan went along with resource capture strategies, which are unilateral actions that occur “whereby a riparian, in the absence of formal understandings, moves ahead with projects that affect the flow or quality of the resource” (Waterbury, 1997: 279).

While the Uzbek resource capture strategies will be discussed in further detail in Chapter 6 (where they will be analysed as hegemonic strategies), it is worth focusing on those carried out by Turkmenistan, as they have generated controversies and debates all over the region. It must be first noted that Turkmenistan has traditionally had an isolationist approach towards the management of transboundary waters and regional issues in general. Its foreign policy is based on the status of permanent positive neutrality, that was recognized by the UNGA Resolution on Permanent Neutrality of Turkmenistan on 12 December 1995 (United Nations General Assembly, 1995), and that has been used by the Turkmen government as a tool to strengthen its authority and to establish a “domestic-oriented” foreign policy (Anceschi, 2009). As outlined in the timeline, Turkmenistan has

not taken part in most of the regional meetings on the management of regional water resources, and only recently, following the establishment of the UN Regional Centre for Preventive Diplomacy for Central Asia⁶⁹ (UNRCCA) in its capital Ashgabat, the country has become more involved – although this involvement seems mostly cosmetic – in the regional water dialogue.

The Turkmen isolationist approach is well embodied by the decision to realise the Golden Age (*Altyn Asyr*) Lake, a giant reservoir in the middle of the Karakum desert whose construction was launched in the year 2000 by the then President of Turkmenistan Saparmurat Niyazov. This huge artificial lake⁷⁰, that is very likely to increase Turkmenistan's water intake from the Amu Darya, has been planned without consulting with the other riparian countries. The Turkmen President Gurbanguly Berdimuhamedov, defined the Turkmen lake as “truly priceless, not only for Turkmenistan but for the entire Central Asia region”, because the lake will give birth to “New green oasis, towns, villages, districts”, while allowing the “development of irrigated agriculture, livestock and fisheries” (Turkmenistan.ru, 2009). This notwithstanding, the project has been harshly criticised by environmental experts, that contend that the runoff will be insufficient to fill the lake, and that due to the high evaporation rate the result will be a massive dead lake in the middle of the desert (Stone, 2008). The Uzbek government has also raised concerns, as it is worried that the Lake will cause a reduction in the Amu Darya flow to Uzbekistan (International Crisis Group, 2002: 25-26). However, the Turkmen government has continued with the construction of the Lake, although delays have postponed its launch – initially expected in 2010 – to an undefined date.

Unilateral actions such as the construction of the Golden Century Lake, which is being imposed by Turkmenistan on its neighbours without their consent, are emblematic of the individualist approach to regional water issues that has been gradually adopted by the

⁶⁹ The UNRCCA – a special political mission of the United Nations – was inaugurated in 2008, following a request presented by the five Central Asian governments to the UN Security Council. Its mission is to prevent the main threats to Central Asian security, including international terrorism and extremism, drug trafficking, organized crime and environmental degradation/water issues. The Turkmen government insisted on having the Centre in Ashgabat, that among the Central Asian capitals is the one that hosts the fewer regional and international organizations.

⁷⁰ Once completed, the lake is expected to hold more than 130 billion m³ of water, covering an area of 2,000 square kilometers (Turkmenistan.ru, 2009; Menga, 2013).

Central Asian republics⁷¹. In the same way, the construction of major dams in the upstream countries without the consent of the downstream riparians is an extremely controversial unilateral action that will impact heavily (and at different levels) on all countries in the region. For this reason, the almost simultaneous revitalisation of the Rogun and Kambarata dams in 2007 acted as a game changer in regional politics. For the first time, the poorer and politically weaker upstream countries have attempted to drastically change the status-quo, thus marking the beginning of a new phase in regional water relations. The two major dams quickly gained prominence in regional politics, monopolizing the attention of the Central Asian governments and strongly influencing (and straining) their relations.

Before moving to the two case studies, however, it is important to outline the evolution of bilateral relations between Uzbekistan and Tajikistan, and Uzbekistan and Kyrgyzstan, using the TWINS matrix. As it was mentioned in Chapter 2, the analysis has been limited to these two bilateral relations as they are the ones that best mirror the conflict on Rogun and Kambarata, since Uzbekistan has been the most vocal dam opponent among the three downstream countries of the Aral Sea basin.

3.6.3. Tajikistan and Uzbekistan

The Central Asian people can be differentiated among nomadic/semi-nomadic, the Kazakhs, the Kyrgyz and the Turkmens, and sedentary, the Tajiks and the Uzbeks, that settled around the main oasis in the vicinity of the Amu Darya river (Adle and Palat, 2005). Although the Soviets have attempted to stamp out expressions of traditional identity and carefully fabricate new nationalities, their effort had no particular significance. The Tajiks and the Uzbeks have strong bonds, and for instance, at the moment of independence they had difficulties indicating their nationality for their identity cards, since they were often a mixture of both identities (Phillips and James, 2001: 29). Although they speak different languages⁷², the peoples of Tajikistan and Uzbekistan share a common culture and traditions, and being the two main contemporary sedentary civilizations of Central Asia, they also developed a fierce rivalry, that was further exacerbated after the collapse of the

⁷¹ Further confirming this attitude, in June 2000 Turkmenistan and Uzbekistan rejected the multilateral approach to regional water issues proposed by the then head of the Organization for Security and Co-operation in Europe (OSCE) Benita Ferrero-Waldner (O'Hara, 2004), advocating instead for a bilateral approach to solve such issues.

⁷² Uzbek is a Turkic language, while Tajik is a variety of modern Persian.

Soviet Union due to the assignment of the predominantly ethnic Tajik cities of Samarkand and Bukhara to Uzbekistan (see Chapter 4). As Paul Bergne historical analysis exhaustively illustrated (2007), the birth of Tajikistan⁷³ in the 1920s caused a profound shift in the way the Tajiks saw themselves, creating a Tajik national identity where there was none. “The founding of Tajikistan was not the result of Tajik nationalism but the hour of its birth” (Lutz Rzehak, quoted in Bergne, 2007: 103), and this new national identity almost immediately clashed with the Uzbek one.

While, on the one hand, the Soviets did not manage to eradicate expressions of traditional identity in Central Asia, on the other hand, they were more successful in creating inter-national divisions through borders, distribution of political power and an intertwined resource distribution system whose rationale was essentially driven by the *divide et impera* rule (Capisani, 2000). And thus, due to the void left by the collapse of the Soviet Union, two rival civilizations turned into strenuous competitors for the management and control of the region’s natural resources. Significantly, the competition between the two countries seems to go beyond the mere exchange of natural resources, as its roots lie in the assertion of power and national interests, in a context where former Communist leaders took a nationalist turn to enhance the perceived legitimacy of their authority (Mellon 2010, 138-139).

For these reasons, and also given the geographical configuration of the basin, where Tajikistan is upstream of the water but Uzbekistan is “upstream” of the gas, bilateral relations between the two new-born republics have been immediately tense. The circumstances triggered by the water/energy nexus, soon had Tajikistan – unable to pay for the gas supplied by Uzbekistan – releasing water from the Nurek reservoir (its main source of electricity) to generate hydroelectricity in winter. Further complicating matters, a harsh civil war hit Tajikistan from 1992 until 1997, with devastating effects: between 60,000 to 100,000 victims, some 600,000 (a tenth of the population) were internally displaced, 80,000 left the country, for an estimated economic cost of US\$ 7 billion (International Crisis Group, 2001: i).

⁷³ Tajikistan did not exist as an ethnically defined political unit before the Bolshevik revolution. In 1924, the USSR created the Tajik ASSR, that was part of the larger Uzbek SSR. In 1929, the Tajik ASSR achieved the status of union republic, becoming the Tajik SSR.

The first of many energy crises⁷⁴ to come hit Tajikistan in winter 1993 (Barber, 1993), and in 1996, due to dropping temperatures and rising consumptions, the Tajik government was forced to cut electric power for an average of 12 hours a day (United Press International, 1996). Nevertheless, perhaps due to Uzbekistan's involvement in the Tajik civil war⁷⁵ (Horsman, 1999), and to the unstable internal situation in Tajikistan, the relationship between the two countries was not as tense as it turned out to be after 1997. During the civil war, Tajikistan actively participated to all major regional water negotiations and agreements (thus showing the high priority given to water issues in Tajikistan's political agenda), and Uzbekistan successfully managed to leave Soviet water allocation unchanged and out of regional discussions. Yet, in what seems a forerunner of future tensions, in May 1995 Uzbekistan unilaterally (and suddenly) decided to stop buying electricity from Tajikistan, violating an agreement between the two republics and causing discontent amid the Tajik side (the head of the Tajik power grid described the Uzbek move as "impolite, to say the very least") (BBC Summary of World Broadcasts, 1995a).

⁷⁴ Further tensions arose when, in September 1992, supporters of the deposed Tajik President Nabiyeu (a political rival of Rahmon), took control of the town of Nurek and attempted to seize the Nurek dam (that was at the moment controlled by troops from the Commonwealth of Independent States, CIS), which if destroyed could flood the entire region (Agence France Presse, 1992). The attempt failed, as Nabiyeu supporters were eventually overwhelmed (Olcott, 2012), but this aspect seems interesting because it underlines the highly strategic value of large dams. For instance more recently (February 2012), during the civil war in Syria rebels captured the al-Furat dam, the nation's largest dam and a symbol of the Assad family's four-decade rule (Mroue, 2013).

⁷⁵ Uzbek military forces fought alongside the Tajik and Russian armies against the front formed by the Islamic Renaissance Party of Tajikistan (IRP) and the Islamic Movement of Uzbekistan (IMU).

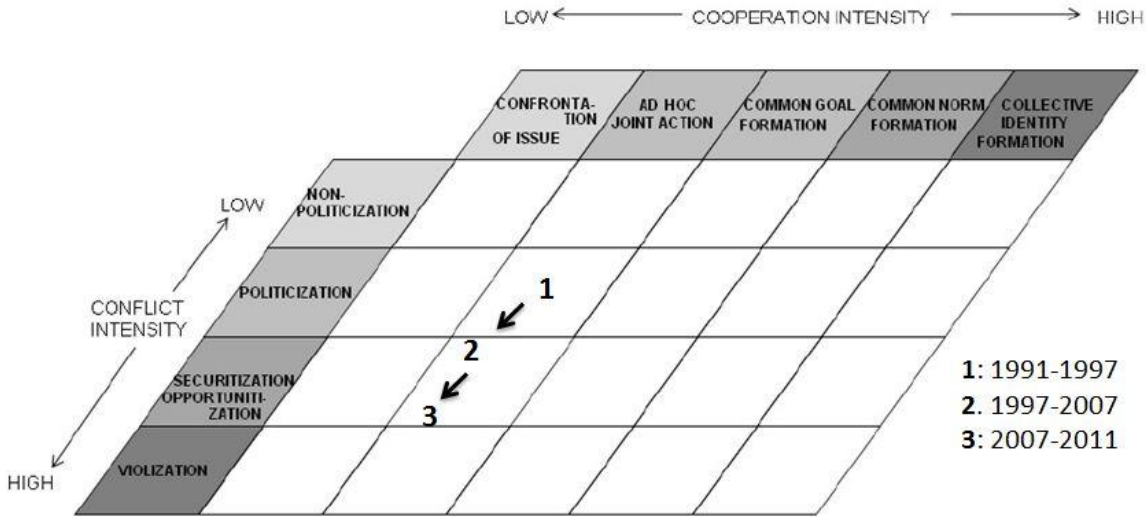


Figure 15: Trajectory of Tajikistan-Uzbekistan relations (1991-2011)

After the end of the civil war, and with the beginning of what was previously defined the second phase of water relations in Central Asia (the one marked by a unilateral approach to shared problems), relations between the two countries came to be tenuous. The signing of AOs became the norm, and Tajikistan's plans to revamp the Soviet hydroelectric projects abandoned after the collapse of the Soviet Union and put in standby during the civil war – most notably the Rogun and Sangtuda dams – contributed to increase strains, as Uzbekistan strongly opposes their construction⁷⁶. And indeed, starting in 2007, when a Russian involvement in Rogun seemed to materialize, skirmishes intensified, and besides the frequent resource cuts (from both sides), the two countries got engaged in a harsh dispute aimed at imposing their view on the management of shared water resources as the dominant one, through the use of ideational and bargaining power (as it will be illustrated in detail in Chapter 4).

What emerges from the TWINS matrix (see Figure 15), is that while the two countries continued to cooperate through ad-hoc actions over the course of the years (although such cooperation never moved to a higher level), the overall relationship gradually deteriorated. What was an already politicized issue became constantly securitized and presented as an

⁷⁶ When asked what he thought about the construction of large hydroelectric stations upstream, Karimov replied “How will we look into the eyes of our children and grandchildren if Uzbekistan is without water? This is our land, we are not going to leave it” (Eurasianet.org, 2009). His words illustrate well his tendency to view water – and the revision of water allocation – as a non-negotiable matter.

existential threat. Water issues in the two countries are indeed managed by the Ministries of Foreign affairs rather than by water officials, as they are perceived as a potential threat to the interests of the nation and not anymore as a recurrent seasonal problem. It is in particular the revitalization of the Rogun dam that seems to have triggered this mechanism, as it has moved the relation between the two countries on the brink of a violent interstate conflict, although, as Dinar (2009) points out, countries tend to find the use of violence to solve water problems too costly and unattractive. This third and next phase of interstate relations, the one that basically orbits around the Rogun dam, will be examined in Chapter 4, through the outline of hegemonic and counter-hegemonic tactics.

3.6.4. Kyrgyzstan and Uzbekistan

While Tajikistan's history is interconnected with that of Uzbekistan, Kyrgyzstan shares historic and cultural roots with Kazakhstan, to the extent that the Kazakhs and the Kyrgyz can be defined "ethnic cousins"⁷⁷ (Cummings, 2012: 104). The Kyrgyz have a predominantly nomadic-pastoral culture, although the Soviet regulations forced them to undergo a sedentarization process and to practice irrigated agriculture in the Ferghana Valley (Adle and Palat, 2005). Also in this case, following the collapse of the Soviet Union Kyrgyzstan and Uzbekistan found themselves as being part of an extremely inter-dependent system, in which Kyrgyzstan was upstream of the water (of the Syr Darya river), and Uzbekistan was upstream of the fuel and gas. Two important differences, however, seem to subsist: i) the flow of the Syr Darya is much more regulated than that of the Amu Darya (thanks to the hydraulic infrastructures built by the Soviets), and Kyrgyzstan has a stronger position than Tajikistan towards Uzbekistan, as it can use the mode of operation of its water infrastructure as a bargaining tool (Wegerich et al., 2007); ii) the internal political situation of the new-born Kyrgyz republic has been considerably more stable than that of Tajikistan – at least until 2005 when the Kyrgyz President Askar Akaev was ousted by the Tulip Revolution – and therefore Kyrgyzstan could almost immediately start challenging the 1992 Almaty Agreement and attempt to exploit its hydroelectric potential in winter.

⁷⁷ Under the Soviet Union, initially the Kazakh SSR was called the Kirghiz Autonomous Socialist Soviet Republic (ASSR) (1920-1925), and was renamed Kazak ASSR in 1926, and only in 1936 was elevated to the status of a Union-level republic, becoming the Kazakh SSR.

Thus, in the period 1993-1996 Kyrgyzstan released water from its Toktogul reservoir to generate hydroelectricity, and Uzbekistan threatened to break the AOAs that the two countries had already started to sign (Weinthal, 2001; Shalpykova, 2002). The year 1996 marked a breakthrough, as Kyrgyzstan started considering water a commodity, demanding compensation for its unexploited hydroelectric potential and for the maintenance of its dams. Significantly, in April 1996, Kyrgyzstan, Uzbekistan and Kazakhstan reached an Agreement in which Kyrgyzstan agreed to supply water to the downstream countries that, in return, agreed to help pay for the upkeep of the Kyrgyz water infrastructures and to purchase the hydroelectricity generated in Kyrgyzstan. This Agreement (that can be viewed as a forerunner of the abovementioned 1998 Syr Darya Agreement) gave rise to an animated debate on those who viewed water as a commodity and those who did not. Kyrgyzstan's minister for water resources Zhenishbek Bekbolotov was quoted as saying “Water is a commodity [...] Any natural resource that is used should be paid for” (Thoenes, 1996), while Uzbekistan's acting minister for water resources, Abdurahim Zhalalov, rejected this notion, pointing out that the commodity was hydroelectricity, and not water⁷⁸.

And indeed, as it was brought up in paragraph 3.6.2, in 1997 (a very tense year for water relations in Central Asia), Kyrgyzstan initiated the legislative process aimed at declaring water as a commodity. Among increasing tensions, and as a reaction to Kyrgyzstan's flooding of Uzbek farm fields to produce additional hydroelectricity in winter, in the year 2000 Uzbekistan carried out military exercises at the border with Kyrgyzstan, with the seeming objective of practicing for capturing the Toktogul Reservoir (Hashimova, 2009; Muzalevsky, 2010).

⁷⁸ In addition, Kuposyn Kudaibergenov, the deputy chairman of the Kazakh Water Committee, made reference to the Qur'an adding that “In the Koran [sic] it is written that water should not be sold. We should solve the problems for each other as partners” (Thoenes, 1996).

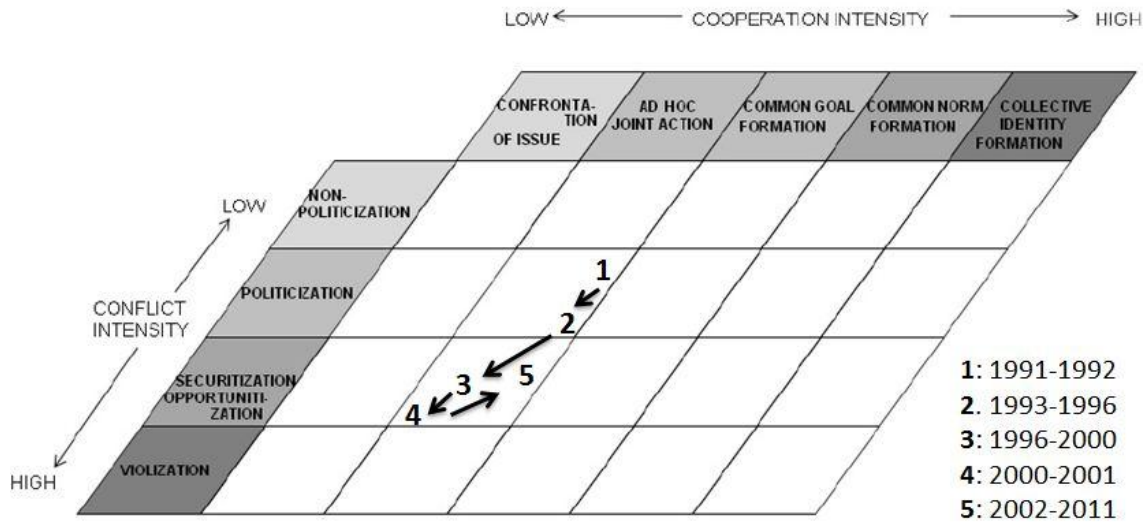


Figure 16: Trajectory of Kyrgyzstan-Uzbekistan relations (1991-2011)

The situation remained to a status of nearly-violized all over 2001, as the Uzbek troops maintained position near the Kyrgyz-Uzbek border, and they were accused by the chairman of the Kyrgyz Parliamentary Committee for International Relations, Alisher Abdimomunov, of unilaterally occupying disputed Kyrgyz territories (Khamidov, 2001). Tensions continued also in the following years – although without the involvement of the Uzbek army – with regular flooding of Uzbek farmland due to excessive winter releases from the Toktogul reservoir (in 2004, the worst flood since 1969 occurred) (RFE/RL, 2004), triggering harsh criticisms from the Uzbek President Karimov. Nevertheless, the two countries kept signing AOAs and holding regular talks on how to improve the management and sharing of natural resources.

Also in this case, as it is effectively illustrated by the TWINS matrix (see Figure 16), conflict coexisted with cooperation, although the former was only limited to short-term solutions under the form of ad-hoc agreements to solve the most pressing matters. The relationship between the two countries gradually deteriorated, especially after the Kyrgyz government disclosed its plan to give a price to water. Perhaps because of the almost total control that Kyrgyzstan can exert on the flow of the Syr Darya river – from which the country can wield a larger bargaining power than for instance Tajikistan – the Kyrgyz administration has attempted to challenge the status-quo and getting compensation for the water it releases to the downstream countries. And these efforts were to some extent

successful, as both the 1998 Syr Darya agreement and the 2000 Chu and Talas agreement recognize Kyrgyzstan's right to get some sort of reimbursement for its water. However, implementation of the 1998 Syr Darya agreement proved difficult due to high water variability in dry years, and the Chu and Talas agreement takes into consideration only two minor river basins shared by Kyrgyzstan and Kazakhstan.

Alike the Rogun dam, the revamp of the Kambarata dam in 2007 further strained relations with Uzbekistan, although in this case the event did not exactly mark the beginning of a new phase in water relations. This is because Kyrgyzstan already attempted to challenge the status-quo, and the Kambarata dam would have a different impact than the Rogun dam on the overall water flow, as it will be illustrated in greater detail in Chapter 5, that will examine the hegemonic and counter-hegemonic tactics put in place to favour and obstruct the construction of the dam.

3.7. Conclusions

This chapter has given an account of water relations in Central Asia for the period 1991-2011, outlining the interdependency issues at play in the region and the criticalities that they have generated. While on the one hand it is clear that the Soviet resource distribution system left a legacy that has still not disappeared, on the other hand, the Central Asian republics have not shown a genuine will to cooperate and to put an end to the recurring seasonal disputes concerning the exchange of water and energy.

A weak institutional framework and the inability to negotiate long-term solutions to regional problems gradually strained interstate relations, and soon after independence the first conflicts emerged. The key incompatibility between water demands of irrigation and hydropower is at the origin of a growing frustration among the upstream and the downstream countries. The latter want to maintain the status-quo unchanged, while the former have an interest in changing it to be able to exploit their significant hydroelectric potential.

This fundamental conflict has driven the evolution of interstate relations over the last twenty years. Following a first buffer period, in which countries attempted to have a multilateral approach to regional water issues, an individualist attitude prevailed, and with it the first recriminations from both sides of the Amu Darya and Syr Darya rivers.

Subsequently, the almost simultaneous revitalisation of the Rogun and Kambarata dams in Tajikistan and in Kyrgyzstan, has marked the beginning of a third (and on-going) phase of water relations, in which the upstream countries are more peremptorily attempting to change the status-quo. These two large dams gained a pivotal role in the regional water debate, strongly influencing interstate relations and giving rise to a harsh confrontation between Uzbekistan – the leading dam-opponent among the downstream states – and the two upstream republics. This political arm-wrestling will be analysed in detail in the following chapters, that will delve on how power has been wielded and on the key hegemonic and counter-hegemonic strategies that these three countries have put in place to favour and obstruct the construction of the Rogun and Kambarata dams.

Chapter 4. The Rogun Dam

Rogun is our national idea.

Emomali Rahmon, 2010

The purpose of this chapter is to analyse the first of the two case studies of this research, the construction of the Rogun dam in Tajikistan. The dam will be used to examine how state power is wielded in international transboundary water relations, and to identify which hegemonic and counter-hegemonic measures have been put in place to favour and obstruct its construction. The focus is placed on the acrimonious regional debate that emerged after the revitalisation of the project in the year 2000s, after which its realisation became a matter of foreign policy, and, as it will be shown, also a matter of national pride. The chapter first gives an overview of the project, its history and its expected impact. Subsequently, it outlines and categorizes the various counter-hegemonic tactics that were put in place by Tajikistan to promote the dam. Finally, the chapter concludes assessing the main effects of Tajik counter-hegemonic tactics.

4.1. Overview of the Rogun dam

Originally conceived as a dual-purpose structure for irrigation water management and for hydroelectricity, the Rogun dam was designed in the Uzbek SSR by the Soviet Hydroproject Institute based in Tashkent during the 1960s, the golden years of the Soviet hydraulic mission. While realising the design, the Institute also carried out a first feasibility study. The original project – which is still the one proposed by Tajikistan – consists of a 335 meter high structure, a 70 km long reservoir with a volume of 13.3 km³ and six 600 megawatts (MW) turbines, resulting in a total installed capacity of 3,600 MW (Schmidt, 2007). If compared with other dams, Rogun would be the tallest in the world – the fourth one being Nurek in Tajikistan (300 m.) – and the twentieth for installed capacity (International Commission on Large Dams).

Preparatory construction works began in 1976, and intense construction started in 1982, involving five to ten thousand people (UNEP, 2011: 48). In 1991, due to the collapse of the Soviet Union and the worsening political situation in Tajikistan that would eventually lead to a five year civil war (1992-1997), works at the Rogun site were stopped. Furthermore, in 1993 – which was originally the year set for its first unit to start producing electricity (Yerofeyeva, 2002) – the upper coffer-dam was washed away by a powerful flash-flood. Combined with inadequate management caused by the civil war, the flood destroyed most of the accomplished structure (Fradchuk, 2010), frustrating two decades of efforts and an investment of 802 million dollars, leaving the “Queen of the Tajik mountains without a crown” (Djuzhev, 2002). Nevertheless, the idea of building Rogun was already too well-established in the minds of Tajik bureaucrats to be washed away with the flood.

Table 4: Concise timeline of the Rogun project. Source: Annex 3; Schmidt, 2007; Sodiqov, 2009.

1960s	The Soviet Hydroproject Institute in Tashkent designs the dam and carries out a first feasibility study
1976	Beginning of preparatory construction works
1982	Start of intense construction involving five to ten thousand people
1991	Interruption of works, due to the collapse of the Soviet Union and the worsening political situation in Tajikistan
1993	A flash-flood destroys most of the accomplished structure
2004	The Russian Aluminium Company (RusAl) agrees to invest US\$ 560 million to complete the construction of the first stage of the project
2005	Tajik and Russian workers begin construction at the Rogun site
2006	The German engineering firm Lahmeyer, which was awarded a contract from RusAl to carry out a first feasibility study of Rogun, recommends 285 meters as the ideal height of the dam, instead of 335, on which the GoT insisted. The GoT will not accept the findings of the report
August	Tajik President Rahmon cancels the deal with RusAl and resumes his search

2007	for investors
2008	The GoT allocates resources from the state budget to restart the construction of Rogun
January 2009	The GoT adopts a resolution on the Rogun resettlement scheme, which envisages the moving of about 30,000 people, from the districts of Rogun, Nurobod, Dangara, Tursunzade, and Darband
January 2010	The GoT launches an Initial Public Offering (IPO) to sell to its citizens shares of the “Open Joint Stock Company Rogun”
March 2010	The World Bank announces that it will realize an 18 month feasibility study and environmental assessment of the dam
2011-2012	In view of the results of the World Bank studies, the GoT interrupts the resettlement scheme and, in 2012, construction works

4.1.1. Independent Tajikistan and the Rogun dam

Indeed, with independence, the newly-born Tajik government and its President Emomali Rahmon repeatedly attempted to restart the project, encountering however numerous obstacles, both financial and political. The project is, in fact, extremely expensive. With a total cost of US\$ 2.9 billion, it cannot be financed by Tajik national resources alone. Although the GoT has calculated that US\$ 800 million of work has already been executed, the project still requires US\$ 2.1 billion of funds (EDB, 2008: 20), equivalent to roughly a third of the country’s 2011 GDP (The World Bank n.d.a). In order to meet this necessity of external funding, the GoT has carried out an interrupted effort over the last twenty years aimed at the mobilisation of financial resources (recounted in full in paragraph 4.3.2).

The turning point in the quest for investments is 2004, when Tajikistan signs an agreement with the Russian Aluminium Company (RusAl), that decided to invest US\$ 560 million to complete the construction of the first stage of the project (Interfax, 2004). Nonetheless, three years later, the Government of Tajikistan (GoT) cancelled the deal, for a

disagreement on the height of the dam and on its ownership⁷⁹ (Eurasianet, 2007a). Disappointed with the Russians, but still determined to pursue its plan, in 2008 the GoT allocated resources from its national budget, finally restarting construction works (Avesta, 2011a), while at the same time continuing to look for foreign investors (BBC Monitoring Central Asia Unit, 2009a). Subsequently, following an internal campaign aimed at creating a “Rogun ideology” (see paragraph 4.3.1) the GoT invited its citizens to buy shares of the “Open Joint Stock Company Rogun”, through an Initial Public Offering (IPO) launched in January 2010.

In the meanwhile, downstream countries – and in particular Uzbekistan – started to actively advocate against Rogun, worried, among the other things, that the dam would reduce water availability for irrigated agriculture. As a consequence of this political diatribe, and particularly after Uzbek reiterated requests of having an external examination of the project, the World Bank (WB) got involved in the dispute. In 2010, after a round of consultations with riparian countries that went on from October 2008 until April 2009, Motoo Konishi, the WB regional director for Central Asia, announced that the bank will carry on an 18 month feasibility study and environmental assessment of the dam (The World Bank, n.d.b). More precisely, a Techno-Economic Assessment Study (TEAS) and an Environmental and Social Impact Assessment (ESIA) were contracted respectively to a consortium led by Coyne & Bellier and to the company Poyry of Switzerland. As of 2013, the feasibility study is yet to be released⁸⁰, and the Tajik government agreed that “no new construction would commence until the Assessment Studies have been prepared, reviewed by the Panels of Experts, then shared and discussed with riparian nations” (The World Bank, n.d. b).

4.2. Expected impact of the Rogun dam

The Rogun dam has drawn the attention of both Tajikistan and its neighbours. But what are the reasons of this interest? What effects might the dam have at the national and

⁷⁹ According to a UN official, the Russians apparently wanted to have a 70 % ownership of Rogun, and this was the main reason behind the cancelation of the agreement, since Tajikistan wanted to retain the ownership of Rogun (U.S. Embassy Astana, 2009).

⁸⁰ Originally, the results of the study were to be released in Summer 2012.

regional level? This section aims to shed light on these questions, reviewing the potential impact that Rogun might have on Tajikistan and on the other Central Asian countries.

4.2.1. A step towards energy independence

Paradoxically, even though Rogun used to be a Soviet project, its significance increased when the Soviet Union ceased to exist. With independence – and with the vanishing of the centralised Soviet management system responsible for the allocation of resources to the Soviet republics – energy-poor Tajikistan had to start paying for the imports of gas, oil and coal necessary to fulfil its energy needs. However, the country's failure to pay for outstanding debts combined with a tense relationship with Uzbekistan, its sole supplier of natural gas, had the latter cutting gas supplies to Tajikistan in several occasions. To recall only the more recent examples, at the end of 2011 Uzbekistan raised the price of the natural gas that sells to Tajikistan to US\$ 311 per thousand cubic meter, and, a few weeks later, gas supplies were cut and Tajikistan, which that year should have received 180 million cubic meters, and instead received only 160 million (Ria Novosti, 2012). Again, on 31 December 2012, Uzbekistan suspended gas deliveries to Tajikistan⁸¹ after both sides failed to agree on a price for gas, following the expiration of their annual resource supply contract.

Unreliable gas supplies, combined with insufficient winter hydropower output, are at the cause of frequent electricity shortages, as demand exceeds by far supply, as shown in Figure 17, which refers to 2009, a year marked by a major energy crisis in Tajikistan.

⁸¹ Two days later, Uzbekistan announced a ban on road transportation of liquefied natural gas through its territory, explaining that the measure was aimed at protecting public safety and the environment.

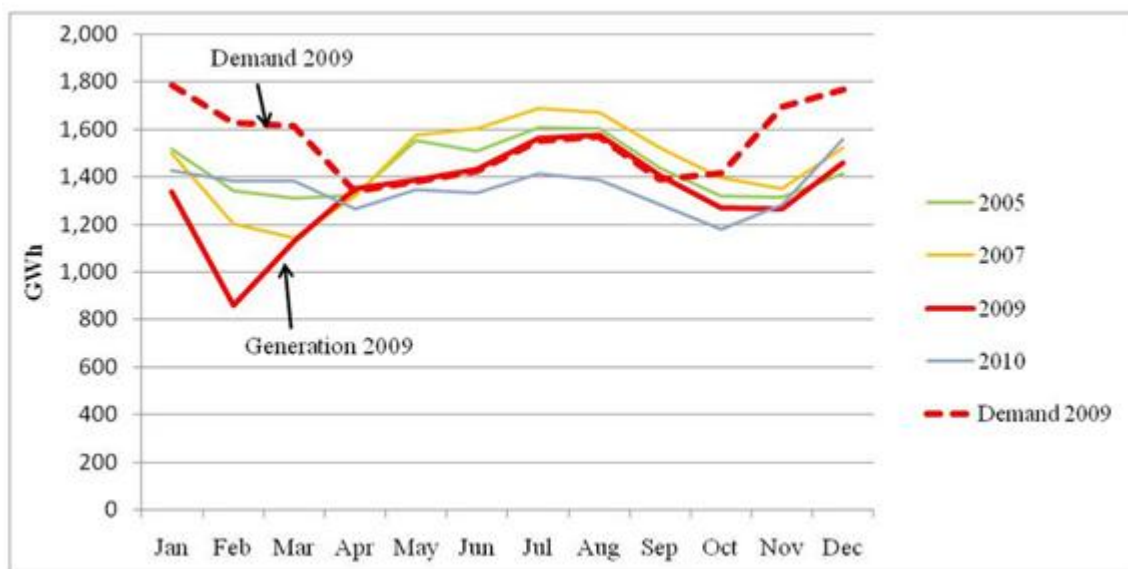


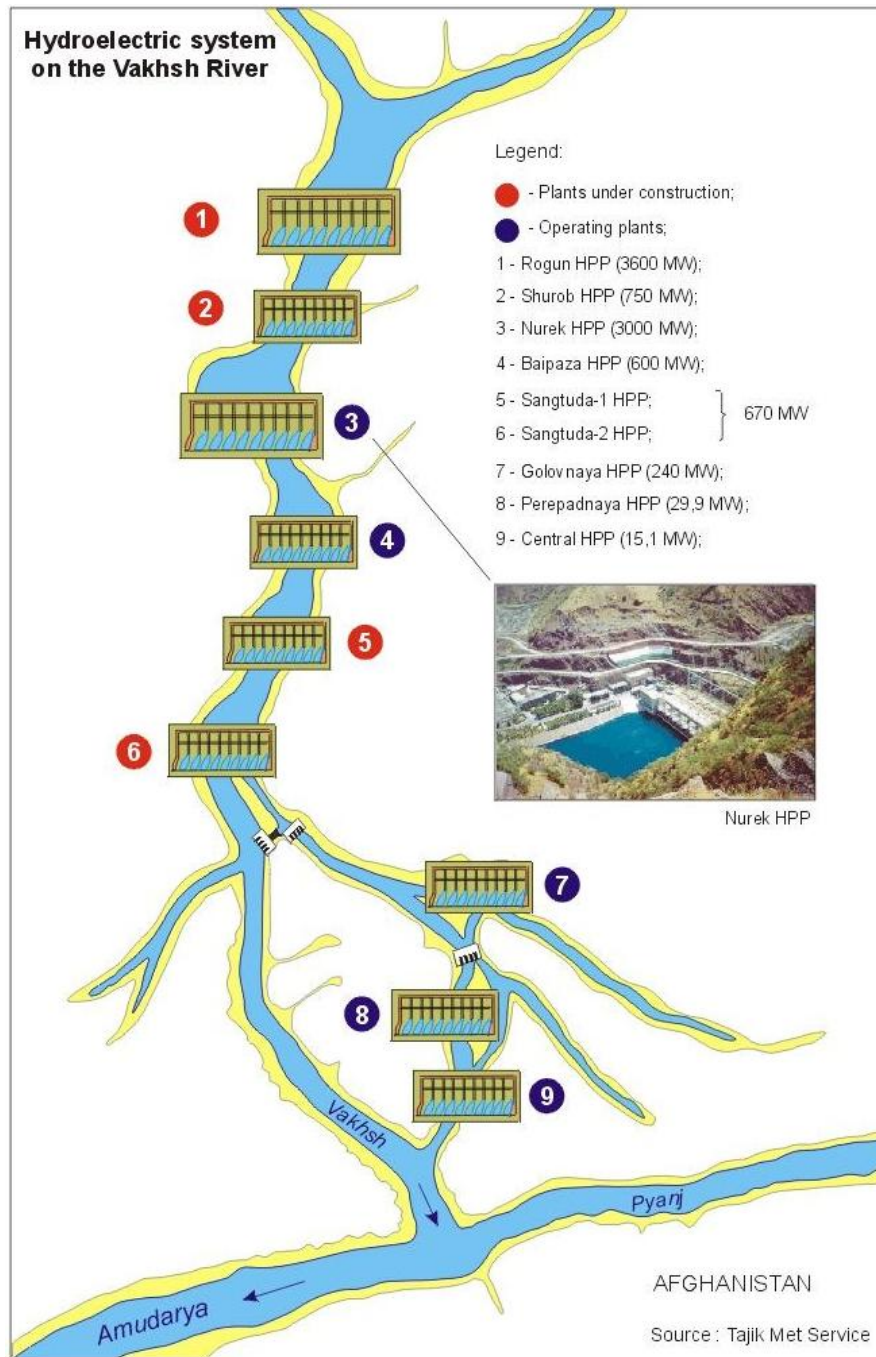
Figure 17: Tajikistan's monthly electricity generation vs. demand in 2009. Source: The World Bank n.d. c.

Around 70 % of the Tajik population experiences extensive electricity shortages in winter, which, alongside their social costs, cause economic losses estimated at over US\$ 200 million per year (The World Bank, 2012: i). For instance, TALCO (the Tajik Aluminium Company located close to the border with Uzbekistan), a key industrial asset of Tajikistan and the largest aluminium processor in Central Asia, particularly suffers from this situation, as it is powered with Uzbek gas and with the electricity generated by the large Nurek hydropower plant (HPP) located on the Vakhsh river, around 70 kilometres downstream of the Rogun site.

Under such circumstances, the potential impact of a HPP of the size of Rogun is remarkable. Namely, as Tajikistan's electricity production from hydroelectric sources accounts for around 97 % of total⁸² (The World Bank n.d.b), the country's total installed capacity of 4,500 MW (see Figure 18) could almost double with the additional 3,600 MW that the Rogun dam will generate, allowing Tajikistan not only to become energy secure, but also to sell electricity to Afghanistan and Pakistan through the proposed CASA (Central Asia South Asia) transmission line, strongly promoted by the United States (see Figure 19).

⁸² Most of which is generated by the 3000 MW Nurek HPP.

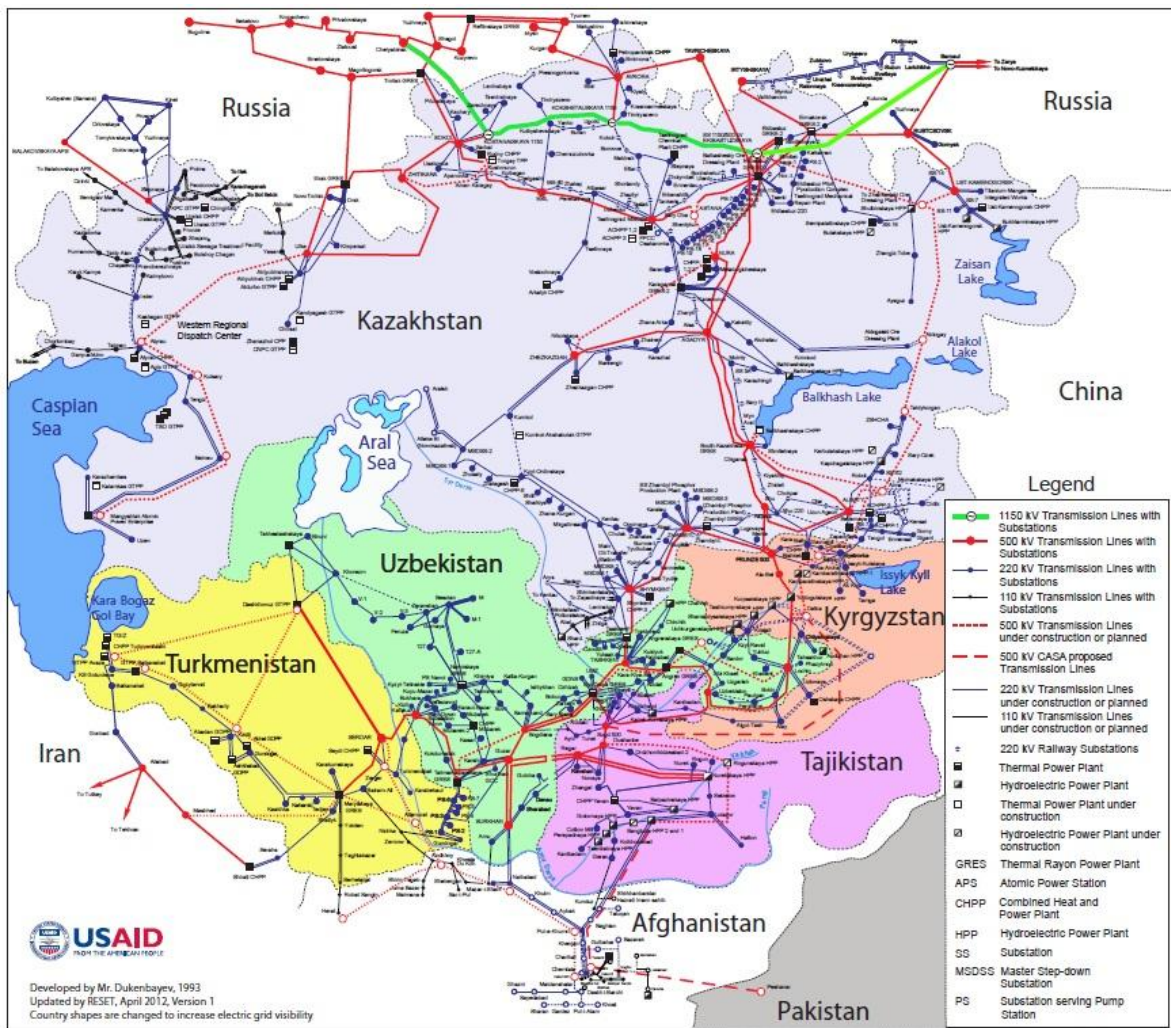
Figure 18: Hydroelectric system of the Vakhsh river. As of 2013, the Sangtuda 1 and 2 HPPs are operational, as they were inaugurated respectively in 2009 and 2011. Source: Tajik Hydro-Meteorological Service.



Even though it is probably too optimistic to predict that “with Rogun, Tajikistan will live like Kuwait”, as a representative of Barki Tojik – the energy holding company of Tajikistan – declared in 2009 (Marat, 2010), potentially many of the country’s energy problems could

be resolved by the dam. This is even more relevant after the two exceptionally cold winters that hit Central Asia in 2007-2008 and in 2008-2009, and that engendered a widespread energy crisis in Tajikistan and in Kyrgyzstan, which was further aggravated by the Kazak and Uzbek withdrawal from the Central Asia Power System (CAPS), officially because of fear on instability in the transmission lines. Although the two countries later re-joined CAPS, in that occasion Tajikistan remained fully isolated, as it also lost the possibility to import gas from Turkmenistan passing through Uzbekistan (The World Bank, 2012: 56).

Figure 19: The Central Asian Electric Grid. Source: USAID Regional Energy Security, Efficiency and Trade Program (RESET). Available from: <http://www.ca-reset.org/images/pdf/CentralAsiaElectricGrid.pdf> [Accessed 3 May 2013].



Therefore, for a country where the population has electricity only for two-three hours a day from October to May (Trend News Agency, 2012), and where winter temperatures can be particularly rigid, the achievement of energy self-sufficiency and of reliable electricity supplies is a quite enticing prospect. Whereas for the Soviet Union water reservoirs were primarily conceived to provide a reliable water supply to downstream irrigated agriculture (Libert et al., 2008: 10), for independent Tajikistan their main use appear to be the generation of hydro-electricity. It is in this new setting that Rogun became the centrepiece of Tajikistan's energy plans, and the government presents the project as a fundamental leap forward in national development.

4.2.2. A strong political symbol and a unifying element

At the political level, Rogun can have an equally important impact. The collapse of the Soviet Union implied that Communism was no longer providing a basis for legitimacy to national governments, and this led former Communist leaders to take a nationalist turn to enhance the perceived legitimacy of their authority (Mellon, 2010: 138-139). As Matveeva points out, Central Asian states created a legitimisation framework through the invention of national symbols, in the form of “landslide electoral victories, Independence Day parades with displays of military might, historical writings, leaders’ addresses to the nation, national holidays, flags and anthems, the currency, the capital and major national monuments” (Matveeva, 2010: 18). This perspective allows to appreciate the symbolism and prestige that can be attached to the world's tallest dam, and to understand how a project like Rogun can become the centre of a certain rhetoric put in place by the government to legitimate itself, gain consensus and divert attention from more pressing matters. Even more so, considering that not long ago Tajikistan – the least prepared of the Central Asian countries to undergo policies of national consolidation (Gleason, 1997: 100) – was ravaged by a harsh civil war that enfeebled the authority of the national government and accentuated regional and clan divisions (Akiner, 2001). The unifying effect of an iconic project like Rogun can contribute to the creation of a national identity, while helping keep in power President Emomali Rahmon and his close network from the Kulob region.

And if Rogun is seen as a symbol of patriotism and success, it is understandable why the GoT wants Rogun to be the tallest dam in the world. Having recently inaugurated the

world's tallest flagpole and Central Asia's largest library (Parshin, 2012), the GoT seems to pay particular attention on world and regional records. While the original Soviet project, on which Rahmon insists, envisages a final height of 335 meters, a few alternatives for a lower dam were proposed over the years (Eschanov, 2011: 1582). Notably, the 285 meters suggested by RusAl following the impact assessment realized by Lahmeyer⁸³, were one of the causes behind the cancelation of the deal in 2007 (RFE/RL, 2007). Nevertheless, it is worth noting that the huge reservoir envisaged by the 335 meters project, would irreversibly alter the landscape, as it will flood an area that stretches for over 70 km in length. Although the Tajik government sees this as a necessary cost, the foreseen forced resettlement of the 30,000 people living in the Rogun, Nurobod and Rasht areas where the reservoir will materialise (Bureau of Human Rights and Rule of Law, 2012: 6), has raised complaints and discontent within the country.

On a foreign policy level, the political value of Rogun can also be directly connected with the historical rivalry between Tajikistan and Uzbekistan, which has its more recent origin in the dispute for the control of the predominantly ethnic Tajik cities of Samarkand and Bukhara⁸⁴. As a matter of fact, the Uzbek opposition to the project is having the unintentional effect of further convincing the GoT that the dam can be held up as a symbol of self-determination and success, one that can be used to unite the people of Tajikistan around a national idea and against a common antagonist. As an example, in 2010, during an epistolary dispute between Tajikistan and Uzbekistan, Tajik Prime Minister Akil Akilov sent a letter to his Uzbek counterpart, Shavkat Mirziyoyev, in which he stressed how Uzbek criticisms have no other effect than uniting the “people of Tajikistan in the idea of building this vitally important hydropower plant” (Ferghana, 2010). The unifying effect of the

⁸³ Lahmeyer proposed three different stages of construction. In Stage I, Rogun would have a height of 225 meters, in Stage II 285 meters, and in Stage III 335 meters. Only at Stage III Rogun would be the tallest dam in the world. Overall, Lahmeyer advised the GoT to re-start the project from the beginning (Schmidt, 2007).

⁸⁴ As mentioned in Chapter 3, in 1924, when the Soviet Union started to create the Central Asian SSRs, Uzbekistan and Tajikistan corresponded respectively to the Uzbek SSR and the Tajik ASSR (the Autonomous SSRs were administrative units of a lower status than the SSRs), the latter being part of the larger Uzbek SSR. In 1929, the Tajik ASSR was transformed to a full-fledged SSR, and its territory was administratively separated from that of the Uzbek SSR. However, the cities of Samarkand and Bukhara remained in the Uzbek SSR, thus originating the dispute on whether the cities should belong to Uzbekistan or to Tajikistan. On this regard, in 2009, during a particularly animated press conference, Emomali Rahmon alluded to his difficult personal relationship with Islam Karimov, recalling a fight he had with the Uzbek President. In that occasion, before Leonid Kuchma (the former President of Ukraine) managed to physically separate them, Rahmon shouted to Karimov: “We will take Samarkand and Bukhara!” (Dubnov, 2009).

Rogun dam seems particularly relevant, considering that the drawing of the Soviet borders left 60 % of the Tajik population outside their home country (Bergne, 2007: 100).

4.2.3. Potential threats to the reliability of water supplies and to the environment

In addition to producing large quantities of electricity and providing a mean to promote patriotism, Rogun might also influence the water flow of the Amu Darya and, if used with bad intents, threaten the agricultural interests of Uzbekistan and Turkmenistan. For instance, the Uzbeks are concerned that if the water stored in the Rogun reservoir is released in large quantities in winter to generate electricity, the summer flow would be insufficient to sustain agriculture and the needs of the population downstream. Conversely, the GoT notes that Rogun would not only improve water supply to currently irrigated lands, but it will also allow to irrigate 480 thousand additional hectares of land, including 140 thousand in Turkmenistan and 240 thousand in Uzbekistan (Yuldoshev, 2008).

For what concerns the water flow, Wegerich et al. (2007: 3822) observe that only one out of the three construction stages proposed by Lahmeyer in 2006, Stage III, could give Tajikistan full control of the Vakhsh river, and consequently, of the Amu Darya. Nevertheless, Stage III, or in other words having a Rogun with a height of 335 meters and a reservoir volume of 13.3 km³, is the one on which the GoT insists. Therefore, the dam would certainly increase the dependence of the downstream countries on Tajikistan (Libert et al., 2008: 15), and, as a result, the current situation, in which most of the water is allocated to Uzbekistan and Turkmenistan, could possibly be reversed. Tajikistan could use water as a strategic tool, for example by pressing downstream riparian states to pay for water releases, thus establishing a form of hydro-hegemony (Wegerich, 2008: 72).

Moreover, as the dam is being built on what is notoriously a seismic area, Uzbekistan is worried that the weight of the dam and of its reservoir could provoke an earthquake that would have terrible consequences, both for Tajikistan and for the downstream countries (Mission of Uzbekistan to the E.U., 2010). The anti-Rogun discourse is well summarised by the declarations of Uzbek President Islam Karimov. For instance, when asked why Uzbekistan is opposing the construction of Rogun, the Uzbek President replied “How can we let the residents of Uzbekistan live without water for eight years, while the Rogun water reservoir is being filled up? What will farmers be doing all this time?” (Interfax, 2010).

4.2.4. The ensuing debate

Rogun would have an impact at different levels, as it is often the case with structures of this size. At the domestic level, the dam could allow Tajikistan to become energy independent, serving as a symbol of success that could reinforce – in the ideas of the Tajik leadership – national identity. Moreover, Afghanistan and Pakistan could take advantage from the electricity surplus generated by the dam, through the proposed CASA transmission line. Nevertheless, Rogun could also impact on the water flow of the Amu Darya, and have negative consequences on irrigated agriculture in downstream countries. Perhaps even more importantly, Rogun could provide Tajikistan a strategic advantage in regional water issues, as the country would be able to control the water flow and, for instance, charge downstream countries for the water that it releases.

The dam could indeed change the status-quo, and allow Tajikistan to become the hydro-hegemon in the Amu Darya basin. In the current status of things, although it is difficult to identify a clear hegemon in the basin (Wegerich, 2008: 78), Uzbekistan is nonetheless exerting a form of hydro-hegemony, as it has managed to keep its advantageous water allocation unchanged after the collapse of the Soviet Union. As it was mentioned in Chapter 3, the country contributes 6 % to the flow generated in the basin (Micklin, 2000: 7), but thanks to the Soviet Protocol 566 signed in Moscow in 1987 (Protocol 566, 1987), it withdraws 36 %⁸⁵. Such hydro-hegemony is discernible especially in relation with Tajikistan, a country which depends from Uzbekistan for its natural gas supplies, and which has a considerably smaller population, inferior military and political might and a less developed economy.

Thus, while the project is yet to be realised, and the impacts discussed above are only potential, the Rogun dam has crystallised the upstream-downstream tensions over the differing preference of water use. Both Tajikistan and Uzbekistan have shown little disposition to discuss solutions that would be acceptable to both countries, leaving little room for compromise (Jalilova et al., 2013: 4). If, on the one side, Tajikistan advocates in favour of the dam, on the other side, Uzbekistan attempts to hamper its construction.

⁸⁵ While Tajikistan, which contributes 80 % of flow generated, can withdraw only 15.4 %.

Based on these assumptions, the strategies carried out by Tajikistan and Uzbekistan to attain their goal, can be respectively defined as counter-hegemonic and hegemonic, with the former aiming at altering a disadvantageous status-quo, and the latter aiming at maintaining it unchanged. Therefore, as this is the key to answer the research questions that drive this study, the remaining of this chapter analyses in detail the counter-hegemonic tactics put in place by the Tajik government.

4.3. Tajik counter-hegemonic tactics

In her study of counter-hegemonic strategies in the Nile river basin, Ana Cascao (2008: 17) observed that the main goals of the hegemonised are to challenge, contest, change and create alternatives to the status-quo. This applies also to Tajikistan, which is contesting and trying to change a status-quo in which it cannot exploit its hydroelectric potential. The key goal of Tajik counter-hegemonic strategies is to get the conditions necessary to build the Rogun dam, a fundamental step in the achievement of the Tajik hydraulic mission.

The carrier of the Tajik hydraulic mission is the Tajik hydrocracy. The Tajik hydrocracy is tasked with implementing existing Soviet projects rather than planning or designing new ones. Therefore, its key members are high-level decision-makers, such as the Tajik President Rahmon and officials from his close network of power, most notably the Foreign Minister Hamrokhon Zarifi, the Prime Minister Akil Akilov and the Tajik Permanent Representative to the UN, Sirodjidin Aslov⁸⁶. All of them have managed to keep an unvaried position towards the Rogun dam over the last decade, one that can be summarized into the motto “Rogun shall be built at all costs”.

The strategy adopted by the Tajik hydrocracy to further the construction of the Rogun dam is shaped by three main drivers: getting visibility and international acceptance for the project, mobilizing international funds and creating a Rogun ideology at the internal level. Consequently, these three factors led the hydrocracy to adopt two distinct discourses, one for the domestic and one for the foreign dimension. While the former presents the dam as a vital achievement for the country, as a symbol of national pride, honour, progress and prosperity, the latter focuses on presenting Tajikistan to the international community as a responsible water user that should be allowed – and possibly, financially supported – to

⁸⁶ In December 2013 Aslov was appointed Foreign Minister, thus replacing Zarifi as head of the Tajik MFA.

exercise its right of building a dam, that will be operated for the mutual benefit of all the countries in the region to produce clean energy. The Tajik discourse seems then to include the two main justifications held by dam proponents during the twentieth century: the “big-dams-are-development” argument, is indeed sided by the cause of hydropower as a clean and renewable energy that contributes to reduce climate change (Khagram, 2004: 209). The project is framed in such a way that legitimises Tajikistan’s right to build it, portraying it as a key for the prosperity of the country and as a symbolic, cooperative regional project.

Overall, the Tajik counter-hegemonic strategy is formed by four main tactics, which all challenge the status-quo ideally leading to the construction of the Rogun dam: i) internal support; ii) mobilization of financial resources; iii) international support and iv) knowledge construction (see Figure 20). The tactics represent the ways in which ideational and bargaining power are wielded.

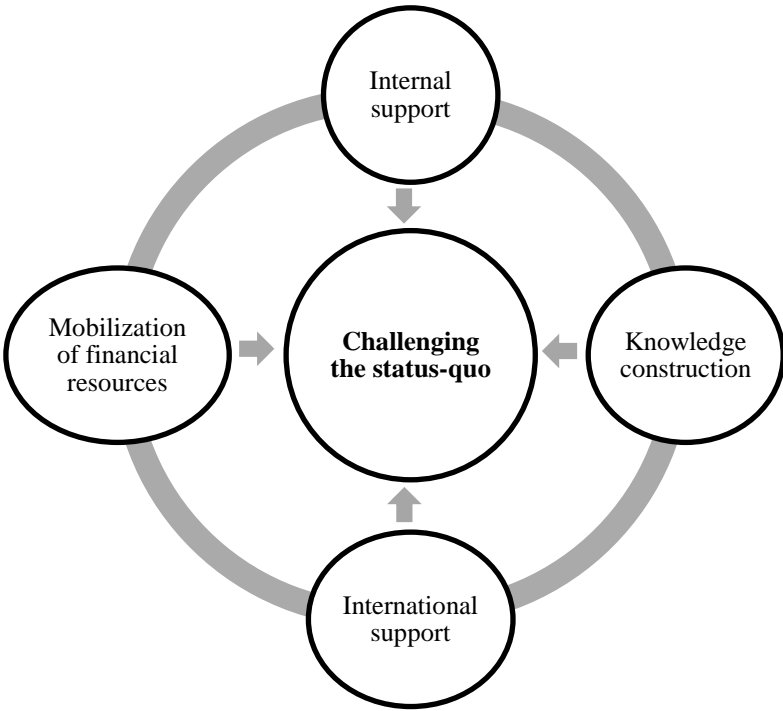


Figure 20: Building the Rogun dam: the four tactics forming the Tajik counter-hegemonic strategy

Through these tactics, the Tajik government is attempting to impose its discourse and ideology. Only when Tajikistan will get consent, it will be able to exploit the geographical advantage that comes from being the furthest upstream country in the Amu Darya basin.

Soft power here can set the conditions to use structural power, or, to interpret it through a Gramscian lens, consent is a necessary condition to use force. To reconnect with the analysis of power and hegemony presented in Chapter 2, while hegemony can be maintained through the use of connective forms of power, in the same way it can also be challenged, through a continuous and evolving process aimed at changing the status-quo.

The following, analyses these tactics in detail, outlining the main aspects of the Rogun discourse and the ways in which it has been disseminated, starting with its domestic dimension and gradually moving to its international one.

4.3.1. Internal support: creation of a Rogun ideology

Targeting both Tajik citizens living in Tajikistan and those working abroad, the GoT has carried out a significant effort to create a Rogun identity. This process has a performative relevance to Rogun, since an ideology bound to the dam can facilitate its physical construction, notably when the citizens are called to financially support the project. The strategy gained momentum with the energy crisis of 2007-2008, that left many people without electricity and heating in many areas of the country including the capital Dushanbe (Eurasianet, 2008a). After this event, the fact that Tajik citizens should fully appreciate the benefits of Rogun became a priority for Tajik President Emomali Rahmon (Idiev, 2009), that started to disseminate his message on national TV, radio channels and websites as well as on ubiquitous banners and poster. As Molle et al. noted (2009), the creation of certain meta-discourses and meta-justifications – which usually tend to stress matters such as the achievement of national goals and priorities or the absence of real alternatives – are among the classical means of furthering large-scale projects at the internal level, and this is the case also for Rogun.

In line with Susan Strange (1994) idea of the “knowledge structure”, and with the Foucauldian view of discourse as an essential element in the operation of power, “as it is the vehicle through which knowledge and subjects are constituted” (Gaventa, 2003: 4), the GoT is using ideational discursive means to shape the minds of its citizens and persuade them of the benefits of the dam. The recurring elements of the internal Rogun rhetoric, include the portrayal of the dam as a source of light, heat and progress, as a vital and existential issue and as a solution to most of the problems faced by the country.

Tajik media, such as the Khovar and Avesta news agencies, and the Tajik state-run TV and Radio, work together in both ensuring visibility to the project and in channelling official statements that report the government's vision on Rogun. For instance, the internet portal of the Avesta news agency⁸⁷ features Rogun on top of the list of topics addressed in the website (placing it before the "Government", "Security" and "Business" sections), while the Khovar news agency duly reports Rahmon's speeches on Rogun and mirrors the government's position on the matter. When in 2008 Rahmon called "on all patriots and honoured sons of the motherland to take an active part in the soonest completion of the construction of the first unit of the hydroelectric power station", all the country's TV and radio channels quoted him as saying this (BBC Monitoring Central Asia Unit, 2010i). In 2010, strained relations among the Tajikistan and Uzbekistan led to a harsh epistolary dispute concerning the Rogun dam between the Tajik Prime Minister, Akil Akilov, and his Uzbek counterpart, Shavkat Mirziyoyev. The letters were also simultaneously published in the Tajik and Uzbek state-owned news agencies, thus informing the citizens of both countries about the quarrel. While Akilov's letter discarded the Uzbek view as unreasonable, and stressed how the Rogun dam is based on the "vital necessity of normal electricity provision for population and national economy" (Akilov, 2010), the Tajik state-owned press noted that Uzbek criticisms have no other effect than uniting the "people of Tajikistan in the idea of building this vitally important hydropower plant" (Ferghana, 2010).

A month before, Khovar – along with the Tajik state TV and Radio which broadcasted it integrally – reported the yearly Presidential address to the people of Tajikistan, which in this occasion was almost entirely centred on Rogun. In his message to the nation, Rahmon provides a comprehensive synthesis of the Rogun rhetoric:

Rogun is our national idea. [...] I shall reiterate to all citizens of this sovereign state, regardless of nationality, language and religion, that Rogun is a real battleground for honour and dignity, is a popular arena of selfless work for a better future and prosperity of sovereign Tajikistan! [...] I appeal to the children of Tajikistan, living and working in other countries, and always thinking about the welfare of their ancestral land and the prosperity of their houses: you can actively participate in this nation-wide initiative and contribute to the construction of Rogun, a source of light and heat in your homes! [...] Rogun is a symbol of the accomplishment and prosperity of the present and future Tajikistan, of an

⁸⁷ See <http://www.avesta.tj/>, top-left sidebar, viewed 1 March 2013.

unprecedented development of industry and agriculture, and most importantly, a daily symbol of warmth and light for every citizen of our country! [...] Rogun is a source of national pride for every citizen of Tajikistan and a symbol of pride for our present and future life! Rogun is a symbol of the life of our nation, a symbol of life and death of the Tajik state! (Rahmon, 2010a; translated by the author from the original Russian)

All the key elements of the Rogun discourse are contained in this address: Rogun is portrayed as a symbol of national pride and honour, of progress and prosperity, and ultimately, as a matter of life and death for Tajikistan⁸⁸. In addition, the “appeal to the children of Tajikistan living abroad”, seems of particular interest, both because this can be linked directly to the representation of Rogun as a unifying element, and also because the amount of remittances sent home by Tajik migrants is estimated to account for half of the GDP⁸⁹ (International Labour Organization, 2010).

This aspect acquires more relevance if connected with the sale of Rogun shares to Tajik citizens. Indeed, Rahmon has extensively used (Dubnov, 2009; Interfax, 2009) certain aspects of the Rogun discourse – namely the representation of the dam as a vital facility and as a matter of life and death – to convince his citizens to buy shares of the “Open Joint Stock Company Rogun” (Ministry of Finance of Tajikistan, 2009), that launched an initial public offering (IPO) on 6 January 2010 (Rasul-zade, 2010), a day which was also declared the “Day of Solidarity for the Construction of Rogun” (Eurasianet, 2010a), and that was marked by the birth of a baby named by his family *Roghunshoh*, King Rogun, in honour of the power station (Ria Novosti, 2010).

During the IPO, Tajik citizens were forced to sacrifice part of their salaries to purchase shares of Rogun, while the main streets of Dushanbe had been adorned with banners and posters advertising the dam, and the Tajik state TV devoted substantial amounts of prime time broadcast to updates on the progress of the share sale (Leonard 2010). One year later, some two million shares of Rogun had been sold, earning the GoT US\$ 170 million (Ergasheva 2011), corresponding to less than 10 % of the total amount required to build the

⁸⁸ Also, and in line with Arundaty Roy’s analysis of the Sardar Sarovar Dam in India, this implies that if you support the dam you are a patriot, but if you don’t, you are an enemy of the nation (Aradhana, 2002). Indeed, Suhrob Sharipov, the head of the Strategic Research Centre (SRC) of Tajikistan, was quoted as saying that “if somebody in the country opposes construction of the Rogun hydroelectric power station, he will automatically turn into a traitor” (BBC Monitoring Central Asia Unit, 2009a).

⁸⁹ As reported by the International Labour Organization (2010), the total labour migration out of Tajikistan is estimated to include between 500,000 to 800,000 people, which represent about 10 % of its total population of 6.9 million.

dam⁹⁰. Although this is a significant amount in absolute terms for the Tajik economy⁹¹, it is insufficient to make a difference in the overall dam construction process, as it corresponds to less than 10 % of the total amount required.

But has Rogun really become the people's dam? In spite of the government's tight grip on the media and Tajikistan's rubber-stamp Parliament designed to maximize Rahmon's power (Olcott 2012, 16), Tajik citizens have yet to be persuaded that Rogun is a panacea (Eschanov 2011, 1579-80). Discontent has risen after the launch of the IPO, as government employees who refused to buy shares were reportedly being fired, and university students were forced to show share certificates to their professors before sitting for exams (Bureau of Democracy, Human Rights and Labor 2011). Mukhiddin Kabiri, the Head of the Islamic Revival Party of Tajikistan (IRPT) and a political rival of Rahmon, accused the government of diverting the people's money to unspecified uses not related to the dam (Panvilova 2009). The project has also raised complaints among residents of the Rogun, Nurobod and Rasht areas, where 30,000 people will be forcibly resettled to make room to the Rogun reservoir. However, this has not changed Rahmon's strategy, and the Tajik government has continued to disseminate its Rogun discourse both at the domestic and at the international level, where the dam has become one of the cornerstones of Tajikistan's foreign policy.

4.3.2. Mobilization of financial resources

The IPO represents only a part of the efforts carried out by the GoT to raise funds for the construction of Rogun. In effect, over the last twenty years the Tajik administration uninterruptedly looked for the US\$ 2.1 billion necessary to build the dam, trying to involve in the project a great variety of foreign partners. While none of these attempts would eventually lead to any substantial foreign involvement, it is nevertheless useful to illustrate them, as pulling together international financial resources is an essential requirement to fulfil Tajikistan's hydropower ambitions. To this extent, the case of Tajikistan and Rogun seems similar to that of Ethiopia and its dam projects in the Ethiopian highlands in which – as Cascao observes – the mobilisation of international funding constitutes a crucial element

⁹⁰ Later in 2011, the GoT interrupted the sale of Rogun shares following criticism of the IPO by the International Monetary Fund (International Monetary Fund 2010).

⁹¹ In 2011, the Tajik budget allocated roughly US\$ 1.8 billion in expenditures, of which 210 US\$ million to the energy sector. Available from: <http://minfin.tj/downloads/files/MTEFfinalTajikenglish.pdf> [Accessed 7 September 2012].

in Ethiopia's counter-hegemonic strategy against Egypt in the Blue Nile Basin (Cascao, 2008: 24).

Worldwide, only a few countries have the necessary funding to realize on their own structures of the size of Rogun. International players such as China (and to a lesser extent India), are currently leading the way in the dam building sector, financing several large projects both within their territory and in other countries and regions (Gleick, 2011: 128-129), taking the role that in the 1960s belonged to the Soviet Union. Over the last century, the Soviets contributed to the construction of numerous large dams around the world, including the Aswan High Dam in Egypt (Mitchell, 2002) the Hoa Binh Dam in Vietnam (Vietnam Online, n.d.) and the Tabqa dam in Syria (Kolars and Mitchell, 1991). Tajikistan, notwithstanding the IPO (2010) and the direct allocation of budget money (starting in 2008), is not able to realize the project on its own (and had it been, the whole story would perhaps have been different). Therefore, the following will outline how Tajikistan has been targeting large individual donors (particularly Russia) and international financial institutions like the World Bank and the Asian Development Bank (ADB), to get financial support for the project.

4.3.2.1. Involving countries...

Already in May 1993, in the middle of the Tajik Civil War, the newly elected President Emomali Rahmon released an interview to Ostankino Channel 1⁹² in which he declared that despite financial constraints, “the construction of the Rogun hydro-electric station is continuing” (BBC Summary of World Broadcasts, 1993a), adding that Russian President Eltsin visited the site and that there was a general interest from international investors to participate in the project. Thence, a few weeks later, Tajik Premier Abdullojonov announced the drafting of an agreement between Russia and Tajikistan concerning the construction of Rogun (BBC Summary of World Broadcasts, 1993b), that was eventually signed in April 1994 (BBC Summary of World Broadcasts, 1994a). A month later, rumours started to circulate about the establishment of a Tajik-Russian joint-stock company set to complete the construction of Rogun, but then again no concrete actions followed (BBC Summary of World Broadcasts, 1994b). Rahmon's interest on Rogun was reiterated in his

⁹² Ostankino Channel 1 (currently named *Pervyy Kanal*, First Channel), was and remains the main Russian TV channel.

election manifesto in November 1994, which stressed the importance of attracting workers to the construction sites of the Rogun and Sangtuda I⁹³ hydro-power stations (BBC Summary of World Broadcasts, 1994c). Such goal was also included as a priority area in the Tajik government's economic reform programme for the period 1995-2000 (BBC Summary of World Broadcasts, 1995b).

Tajik-Russian talks on Rogun continued also after the end of the civil war. In 1998, Russian Deputy Prime Minister Valery Serov mentioned the preparation of feasibility studies for the “construction of several hydroelectric plants” in Tajikistan (BBC Monitoring Central Asia Unit, 1998). One year later, the two countries signed an agreement in which it was decided that part of Tajikistan's debts to Russia⁹⁴ was to be paid through shares in a number of Tajik enterprises and industrial projects, including Rogun (Moscow News, 1999). Again, in 2002, Barki Tojik, signed a contract with the Russian financial group Baltic Construction Company to build Rogun (Ria Novosti, 2002b). Nevertheless, despite an undeniable interest showed over the years, Russian involvement on the project did not materialise into tangible actions, and the construction site remained inactive. This probably explains why during the following years the GoT tried to involve – with poor results – new potential investors, including Japan (Ria Novosti, 2002), Pakistan (Interfax, 2002) and the Czech Republic (BBC Summary of World Broadcasts, 2004d). After more than a decade of negotiations and a handful of unsuccessful agreements, a more effective treaty was signed in October 2004 by Rahmon and his Russian counterpart Vladimir Putin. One of its effects was that the Russian aluminium giant RusAl agreed to invest \$560 million to resume work and complete the construction of the first stage of the project (Interfax, 2004). The German engineering firm Lahmeyer, which was awarded a contract from RusAl to carry out a first feasibility study of Rogun (Interfax, 2005), recommended that the optimal height of the dam should be 285 meters, instead of the 335 on which the GoT insisted (Associated Press, 2006), and, as it was noted earlier, such was the disagreement on the height of the dam and on its ownership that in August 2007 Tajik officials eventually announced the cancelation of the deal with RusAl (Eurasianet, 2007).

⁹³ Sangtuda I is a 670 MW hydroelectric power plant on the Vakhsh River. The project – realized thanks to a Russian investment of roughly US\$ 720 million – represents the largest foreign direct investment project in Tajikistan to date (Olcott, 2012: 242

⁹⁴ US\$ 170 million out of an estimated total of US\$ 300 million.

At this point, it is worth noting that the mobilization of international funding appears to be subordinated to the resolution of the regional conflict with Uzbekistan. Significantly, after his visit to Uzbekistan in 2009, the then-President of the Russian Federation Dmitry Medvedev has clarified that "Hydroelectric power stations in the Central Asian region must be built with consideration of the interests of all neighbouring [sic] states," adding that, "if there is no common accord of all parties, Russia will refrain from participation in such projects" (BBC Monitoring Central Asia Unit, 2009b). Although the MFA of Tajikistan reacted to this sending a note of protest to the Russian Government (Eurasianet, 2010b) – and a week later, Emomali Rahmon unusually cancelled a long-planned visit to Moscow (Russia & CIS Presidential Bulletin, 2009) – Russia did not change its position. There seem to be here a condition comparable to what Barry Buzan called “overlay”, although water takes the place of security in the original definition. Overlay “occurs when the direct presence of outside powers in a region is strong enough to suppress the normal operation of security dynamics among the local states” (Buzan et al., 1998: 12). In the case of Uzbekistan, the country managed to influence Russia to such an extent (using its bargaining power, as outlined in Chapter 6) that the former eventually decided to withdraw its support to Tajik hydroelectric plans.

Once more, when the Russian involvement in Rogun faded, the GoT turned its attention elsewhere, this time towards Ukraine. In March 2008, Ukrainian President Yushchenko announced its country’s participation in an international consortium to finish the project (Interfax, 2008). The two sides held talks again a few months later, discussing a deal worth several hundred million US dollars (Water Power & Dam Construction, 2009) and ending up signing a memorandum of intent on cooperation in the construction of the dam, which was not ensued by tangible measures. Surprisingly enough, before the outburst of the Rogun controversy, even downstream Kazakhstan showed interest in investing in Tajik hydropower projects. In 2008, Kazakh President Nursultan Nazarbayev announced that "If a consortium will work on the Rogun hydroelectric power station, then Kazakhstan will take part, providing materials, helping with shares, and as investor" (RFE/RL, 2008). Two years later, and again as a result of Uzbek lobbying (IWPR, 2009), Nazarbayev seemed to have changed his opinion about Tajik plans, and while visiting Uzbekistan he declared that "there ought to be no hydroelectric power plants in the region without results of the

expertise obtained and studied" (Dubnov, 2010), referring to Uzbek demands of having an independent examination of Rogun.

Also Iran, a country that shares with Tajikistan a common language and culture, has been involved in the Rogun project. In 2009, Ali Asghar Sherdust, the Iranian ambassador to Tajikistan, uttered his country's intentions to participate in completing the construction of Rogun (BBC Monitoring Central Asia Unit, 2009c). Two years later, Iranian support became "harder", as outlined by Tajik Defence Minister General Sherali Khairulloyev, that during increasing tensions with Uzbekistan reminded its neighbours – on what sounded as a warning – that "Today, if necessary, the Islamic Republic of Iran's Armed Forces can reach Tajikistan in two hours" (FARS News Agency, 2011). Yet, while Iranian financial support on Rogun did not materialize, the country has participated in another hydroelectric project, investing US\$ 180 million (82 % of the total cost) in the construction of the less contested 220 MW Sangtuda II hydroelectric plant on the Vakhsh river (Daly, 2011), whose first unit was inaugurated in September 2011 (ITAR-TASS, 2011).

4.3.2.1. ...and financial institutions

Unsurprisingly, the WB – the largest single source of funding for dams around the world (McCully, 2001: 19) – has also been involved in the Rogun project. As it was mentioned, the WB is currently preparing a feasibility study and an environmental assessment of the dam, whose much awaited results – as of 2013 – are yet to be released. Nevertheless, the Bank's engagement on this particular issue is due to Uzbek pressures on having an external evaluation of the project. Despite the fact that in 1994 the financial institution recommended to drop the project on both financial and ecological grounds (FT Energy Newsletters, 1995) the GoT attempted to have the WB participate in Rogun in several occasions, both as a dispute settler and as a provider of international funds. For instance, in 2006 Tajikistan requested the assistance of the WB to resolve the above-mentioned dispute between RusAl and the GoT (Associated Press, 2006). As it was observed, the dispute with RusAl would not be solved, and shortly after the cancelation of the contract Tajikistan sought a loan from the WB, through its energy company Barki Tojik (Global Insight, 2007a).

Towards the end of 2007, Rahmon mentioned for the first time the creation of an international consortium to complete Rogun led by the WB (Central Asia & Caucasus Business Weekly, 2007). Indeed, a few weeks later, WB Vice-President Shigeo Katsu had a meeting with the Tajik prime minister Oqil Oqilov, in which he confirmed that the Bank will take part with a new investment programme aimed at building the dam (BBC Summary of World Broadcasts, 2007). Then, in May 2008, during one of his regular visits to the construction site⁹⁵, Rahmon announced that the consortium had been established thanks to the help of the WB and of other unspecified international financial institutions, adding that this would lead to the completion and operation of two of the six envisioned turbines within 4 and half years, at the end of 2012 (Parshin, 2008a). For the time being, the turbines have not been built, and the international consortium seemed to have ceased to exist, perhaps also because of the WB involvement in the preparation of the two impact assessments.

As for the ADB, in 2009 the Bank's president Haruhiko Kuroda supported Rogun and other hydroelectric projects in Tajikistan (Water Power & Dam Construction, 2009), and subsequently Juan Miranda, ADB director general for Central and Western Asia, expressed the Bank's readiness in helping with the assessments. Although Miranda declared that the Bank "will make it a priority to support projects in this field [hydroelectric] within its cooperation with Tajikistan" (BBC Monitoring Central Asia Unit, 2010h), it appears that the involvement of the ADB – as it is the case for the other potential donors mentioned so far – is subordinated to the resolution of the dispute with Uzbekistan, or at least, to the release of the studies carried out by the WB.

4.3.3. Internationalising Rogun

An important part of Tajik counter-hegemonic strategies consists of getting international acceptance and support for Rogun. This is because without international acceptance, no country or financial institution is likely to invest in a project that is considered too controversial. Therefore, Tajikistan needs to persuade key regional and international players that the dam is necessary for its development and wellbeing, and moreover, that it has every right to build it. In other words, Tajikistan needs to impose its discourse as the

⁹⁵ Rahmon regularly visits the site, both to verify the advancement of the works and to propose Rogun to potential investors.

dominant one. If a discourse is constructed and disseminated successfully, it becomes a “sanctioned discourse”, that, according to the definition provided by Anthony Turton, “is the prevailing or dominant discourse that has been legitimised by the discursive élite within the water sector at any one moment in time. It represents what may be said, who may say it and how it may be interpreted, thereby leading to the creation of a dominant belief system or paradigm” (Turton, 2002: 39). Allan (2001: 183-183) usefully draws from Foucault to explain how a discourse can be understood as a “network of consensus” in politics. In water politics, the main role of politicians is often to legitimise their inputs in a way that they become the dominant discourse. Accordingly, the process through which the sanctioned/dominant discourse is contested, and, at its best result, reversed, can be defined alternative discourse construction. This is the domain where ideational power is delved and possibly best observed, as it is through this form of power that discourses, narratives and ideologies are imposed. It was noted that through ideational power the hegemon convinces the hegemonised that the current situation is right and proper. Conversely, through ideational power the hegemonised can reverse the existing perception of the current situation, and impose a new discourse.

The following analyses how the GoT has delved ideational power, outlining the ways in which it has fervently sought international support for Rogun, proactively bringing the matter at the most important international forums worldwide and organising international conferences and seminars on water management issues.

4.3.3.1. Rogun meets the UN (and a few more)

For what concerns the United Nations, beginning in 1999 during the 54th United Nations General Assembly (UNGA), and carrying on uninterruptedly until the 67th UNGA in 2012, the GoT gradually introduced in its annual address water issues and, subsequently, the development of its hydroelectric potential and the construction of Rogun (see Table 5). Through a well-planned communication strategy aimed at portraying itself as a responsible water user and as a global leader in encouraging cooperation in the field of water (Rahmon, 2008), the Tajik discourse at the UN is a water-energy *crescendo* that eventually leads to Rogun. Considering that the desiccation of the Aral Sea was caused by the series of dams and river diversion projects (which also included Rogun) realized by the Soviet Union, this

strategy can be interpreted as an attempt of changing the perception of Central Asia as an environmentally degraded region, and bestowing to Tajikistan the role of regional leader in promoting environmental responsibility⁹⁶. Hence, in the period 1999-2004, the GoT called for the attention of the world community on fresh water problems and on greater cooperation between countries, successfully putting forward two initiatives to declare 2003 the “International Year of Freshwater”, and 2005-2015 the “International Decade for Action Water for life⁹⁷” (Rahmon, 1999 and 2003; Alimov, 2000 and 2001; Nazarov, 2002 and 2004). Then, in 2005, the Tajik Foreign Minister Talbak Nazarov raised for the first time at the UN the issue of Tajikistan and of its unexploited hydroelectric potential: “water resources possessed by Tajikistan provide us with considerable potential advantages in terms of the Millennium Development Goals [MDGs] implementation, since they represent a huge hydro potential that, unfortunately, is currently used by less than 5 %” (Nazarov, 2005). During the subsequent years, the connection between Rogun and the achievement of the MDGs, which implies the representation of the dam as a fundamental element to attain national goals and priorities, became the central message delivered by Tajikistan at the UN (Aslov, 2007; Rahmon 2008; 2009a; 2009b; 2010; Zarifi 2011a; 2012a). Part of the efforts carried out by the GoT were also aimed at underlining the regional benefits that would stem from Rogun. For instance, Sirodjidin Aslov, the Tajik Permanent Representative to the UN, in 2007 stressed how with “the completion of the construction of the Ragun [sic] hydropower station in Tajikistan alone will make it possible to supply with water extra 3 mln. hectares of land in the neighboring Central Asian states, and ensure water supply in the years of droughts” (Aslov, 2007).

⁹⁶ Supporting this interpretation, and shifting the blame to the Soviet Union, the Tajik delegation to the OSCE declared in 2008 that “any allegation on insalubrities of constructing hydropower plants in Tajikistan and Kyrgyzstan is something as systematic mislead of the world community and concealment of ecological crimes committed in a second half of the 20th century in the Central Asia” (Yuldoshev, 2008).

⁹⁷ A third initiative of this kind, proclaiming 2013 the “International Year of Water Cooperation (IYWC)”, was launched by Tajikistan in 2010 (Rahmon, 2010).

Table 5: Content of the addresses delivered at the UNGA by Tajikistan and Uzbekistan, 1999-2012. “Water”, “Hydroelectric” and “Rogun” respectively mean that issues related to the management of shared waters, the development of hydroelectric infrastructures and the Rogun dam were discussed in the address. Table constructed by author based on data from the United Nations Bibliographic Information System (<http://unbisnet.un.org/>).

UNGA session no. and year	Content of the Tajik Address			Content of the Uzbek address		
	Water	Hydroelectric	Rogun	Water	Hydroelectric	Rogun
54 th , 1999	✓					
55 th , 2000	✓					
56 th , 2001	✓					
57 th , 2002	✓					
58 th , 2003	✓					
59 th , 2004	✓					
60 th , 2005	✓	✓		✓		
61 st , 2006	✓	✓		✓	✓	
62 nd , 2007	✓	✓	✓	✓	✓	✓
63 rd , 2008	✓	✓	✓	✓	✓	
64 th , 2009	✓	✓	✓	✓	✓	✓
65 th , 2010	✓	✓	✓	✓	✓	✓
66 th , 2011	✓	✓		✓	✓	
67 th , 2012	✓	✓	✓	✓	✓	✓

The address delivered by Hamrokhon Zarifi, the Tajik Minister of Foreign Affairs, at the 66th UNGA in 2011, summarizes well the essence of the Tajik discourse at the international level, and the evolution of the message delivered by the GoT over the years:

Energy resources are of paramount importance for sustainable development. Access to energy is an imperative for ensuring social and economic development, eradication of poverty and hunger. [...] Complex development of hydropower, combined with other renewables, will not only allow to increase the capacity of energy systems, but also to promote their stability and increased efficiency, and to considerably decrease detrimental emissions into the atmosphere. For over ten years, in the winter season, the Republic of Tajikistan has experienced a severe shortage of electrical energy supply. Since Tajikistan lacks other sources of energy it is of vital importance for the country, which possesses huge hydropower potential, to develop a hydro energy economic sector in a consistent and complex manner. Tajikistan is prepared to closely cooperate on issues of rational use of water and energy resources with all the countries of the region, with due consideration to the common regional interests. (Zarifi, 2011a: 2)

Sustainable development, huge hydropower potential, clean energy, absence of alternatives, winter energy crises, will to cooperate, distancing from the disastrous Soviet water administration and, finally, the presentation of Tajikistan as a leader in water cooperation under the auspices of the UN.

A similar message has been delivered at the OSCE Ministerial Council meetings, in which the emphasis is placed on matters such as the necessity for Tajikistan to exploit its hydroelectric potential, the regional benefits originating from Rogun and Tajikistan's will to cooperate with its neighbours. Consequently, also in this assembly Hamrokhon Zarifi, underlined his country's "necessity of constructing hydropower plants", as this will be not only extremely profitable for Tajikistan, but it will also "contribute to sustainable development of other countries of the region", considerably increasing their irrigated land⁹⁸ (Zarifi, 2007). The achievement of energy independence is presented as "a matter of vital importance [...] which will have impact on further social and economic development of the country (Zarifi, 2011b). Moreover, thanks to Rogun Tajikistan's energy production will exceed the "real needs of the region three and more times" – allowing "to satisfy the growing demands of neighboring [sic] countries" (Zarifi, 2009). In addition, based on the assumption that the politicisation of hydropower issues is hampering the development of regional cooperation, the GoT reiterated its effort in promoting regional dialogue, proposing the creation of an international hydropower consortium to construct Rogun (Zarifi, 2012b).

⁹⁸ One year later, the GoT increased the expected hectares of land that Rogun would allow to irrigate to 4.6 million, including 140 thousand additional hectares in Turkmenistan and 240 thousand additional hectares in Uzbekistan (Yuldoshev, 2008).

In line with a Rogun-centred foreign policy, Tajik President Emomali Rahmon raised the issue of the dam also during his visits to the European Parliament (EP). In 2009, in a speech to the Foreign Policy Committee of the EP, he defined the completion of Rogun of “vital importance” for his country (RFE/RL, 2009), while in 2011 he ensured the EP that Rogun will benefit not only Tajikistan but all the countries in the region, and therefore the country should be allowed to build the dam (Russia & CIS Military Newswire, 2011). In another occasion, Zarifi, through his “Message from the roof of the world”, asked the EU to help Central Asian countries find a solution on regional disputes, nevertheless reminding that “Tajikistan has abundant unexhausted sources of hydro-energy ranking the 8th in the world on total amount and the 2nd on specific volumes” (Zarifi, 2011c).

Finally, above and beyond the UN, OSCE and the EU, the Rogun campaign at international organizations is complemented by bringing the issue of Tajikistan and the development of “its enormous hydropower resources” (Rahmon, 2009a) at key international conferences, such as the World Water Forum (in 2009 and 2012)⁹⁹ and the 2009 UN Climate Change Conference in Copenhagen.

4.3.3.2. Water conferences

Another significant tactic supplementing the Rogun internationalization process, consists in the organization of international water conferences and seminars. Over the last ten years, the GoT has organized in its capital Dushanbe several large events in which the Tajik view on water management issues and on regional cooperation was presented to the participants. These events – often organised under the auspices or with the financial support of the United Nations – have been usually conceived within the framework of larger initiatives successfully presented by the GoT at the UNGA, such as the abovementioned “2003 International Year of Freshwater” and “2005-2015 International Decade for Action Water for life”.

Not long after the first conferences had been organized, Kai Wegerich noted that Tajikistan “started to challenge the hegemony of Uzbekistan, which has so far dominated the international arena with its own sponsored favoured discourses, such as at ICID, the

⁹⁹ Emblematically, and in line with the process aimed at presenting the country as a responsible water user and at binding the idea of Tajikistan with that of water, the GoT disseminated at the 2012 World Water Forum in Marseille brochures and pens uttering the message “Tajikistan is a water country”.

World Water Week in Stockholm, Green Cross International and the World Water Forum” (Wegerich, 2008: 83). Indeed, the main goal of these events is to strengthen the image of the country as a world leader in promoting cooperation in the field of water, to show an aptitude to cooperate with Uzbekistan¹⁰⁰ and the other Central Asian countries, and eventually to promote the development of Tajik hydroelectric potential¹⁰¹.

Following the organization of the “International Water Forum” in 2003, the GoT convened the large and costly “International conference on regional cooperation in transboundary river basins” in 2005. In 2008, the International Conference on Water Related Disaster Reduction took place in Dushanbe. In his opening remarks, Tajik President Rahmon reiterated his desire to expand Tajikistan's hydro-power potential and urged the creation of an international consortium to develop Lake Sarez (Parshin, 2008b). These events were followed in 2010 by the “Water for Life” conference and in 2011 by the conference “Towards the conference on sustainable development (RIO+20): water cooperation issues”. In addition, and under the umbrella of the UN initiative (which was proposed by Tajikistan) “2013 International Year of Water Cooperation”, the GoT is organized a large “High-level International Conference on Water Cooperation” in Dushanbe in late August 2013, during which Tajikistan will present its analysis and ideas on water supply and use, as underlined by Rahmat Bobokalonov, Tajikistan’s Minister of land reclamation and water resources (Bloomberg, 2013).

Overall, the organisation of water conferences serves to portray Tajikistan as a leader in fostering water cooperation, but also to propagate through authoritative channels Tajik views on water management and to give a positive image of the Rogun dam. This process, closely related with the creation and dissemination of a specific knowledge that backs Tajik assumptions, is delineated in the following section.

¹⁰⁰ For example, at the Water for Life conference Tajik Minister of Energy and Industry Sherali Gul, declared that “Tajikistan will meet Uzbekistan's all demands so as to complete the construction of the Roghun hydroelectric power plant”, also adding that “Tajikistan is not going to block water to Uzbekistan [...] We will never leave our neighbours without water” (BBC Monitoring Central Asia Unit, 2010g).

¹⁰¹ Often the conferences end with a guided visit at the Rogun site or at the existing Nurek hydropower station, as it was the case in 2010 for the Water for Life conference (Interfax, 2010a).

4.3.4. Knowledge construction

Knowledge construction can be considered a hegemonic (Warner and Zeitoun, 2006) but also a counter-hegemonic strategy, since the construction of expertise-based knowledge serves to contest the scientific assumptions contained in the Uzbek discourse, namely that the dam will lead to environmental calamities and water shortages. Additionally, most of the strategies outlined previously could also fit in this category, as in all its endeavours the Tajik government is attempting to impose its discourse and ideology, propagating a specific scientific postulation: the seismicity of the area where the project is located is not strong enough to pose a threat neither to Tajikistan nor to its neighbours. Moreover – and similarly to what is maintained by most upstream countries when it comes to building a large dam (Molle et al., 2009) – the Rogun dam will lead to a better regulation of the water flow while also allowing an increase in the irrigated land in the downstream countries. Science-based knowledge that presents the Rogun dam as a win-win situation, can provide an authoritative support that help legitimise the way the issue is framed by the Tajik hydrocracy. This knowledge has been disseminated by means of newspaper articles, open letters, and the active engagement of western politicians.

Interestingly, while the Soviet legacy on the environment is strongly condemned by Tajik Ministers (see note 96), Tajik scientists glorify the Soviet engineering expertise behind Rogun, that rather than making the project outdated (as the Uzbek government sustains) (Mirziyoyev, 2007), is presented as the state of the art of dam design and construction. The benefits of the dam are widely diffused by the Tajik press and by the websites of the Tajik Embassies, that are also used to counter negative assumptions about the Rogun dam. For instance, when a Moscow-based scientist with a wide experience in Tajikistan, Leonid Papyrin, warned about the seismicity of the area and recommended further engineering investigations (Papyrin, 2011), the Tajik government entrusted the reply to Professor Dzhonon Ikrami, a Tajik scientist, that objected that:

The current broad scale attack of our neighbors' environmentalists towards construction of Rogun HPP reminds me of an incompetent report of a number of major writers led by Marietta Shaginyan featured in the "Pravda" newspaper in 1962 against the construction of the Nurek HPP high rock-fill dam. [...] After reading a number of statements of our opponents asserting that for the last 100 years in the Rogun construction area there had been 20 earthquakes with a magnitude of 9 points, we turned to the well-known seismologist, Academician S. Kh. Negmatullaev and asked to give us the background on seismic

condition of the Nurek and Rogun HPPs construction area. [...] A thorough data review has showed that the earthquakes with an intensity of more than 6 points on the MSK scale have never been recorded in the construction area of these high-altitude dams. (Ikrami, 2012)

The article proceeds with a series of counter-arguments to the “myths about Rogun’s dangers”, in which Ikrami backs up his statements with those of other experts in favour of Rogun. Similarly, when the Uzbek newspaper *Pravda Vostoka* published an alarmed article that defined Rogun a tsunami for Central Asia (*Pravda Vostoka*, 2011), the criticisms were dismissed reminding that Rogun was designed by some of the finest Soviet scientists, and that the project successfully passed the inspections carried out by the WB and the German company Lahmeyer (Ikrami, 2011). A few months later *Pravda Vostoka* published another worried article on Rogun, that was punctually contested in the Tajik government-owned website *Avesta*, noting that the seismicity of the area is not strong enough to pose a threat to the Rogun dam (*Avesta*, 2011b).

Rahmon and his ministers have also tried to legitimise their views through the apparently spontaneous endorsement of western politicians and newspapers, and especially of those that engage with the EU. For instance, Struan Stevenson, a Member of the European Parliament (MEP) which in 2010 was appointed by the Kazakh Presidency of the OSCE as Personal Representative of the Chairman in Office responsible for the ecology and environment of Central Asia, has been actively lobbying for Rogun over the last years, spreading the Tajik message around the European Institutions and British universities¹⁰². The declarations and articles released by Stevenson are regularly reposted by the main Tajik information agencies and disseminated by Tajik Embassies worldwide, as for example when the MEP called on the West to widely support Emomali Rahmon and his projects (Stevenson, 2011). In his book “*Stalin’s Legacy*”, Stevenson describes his first meeting with Emomali Rahmon:

The president began to thank me for my ‘excellent’ newspaper article about Rogun. He explained the importance of the project for Tajikistan and said that it was incomprehensible to him why Uzbekistan’s president was so opposed to it. [...] President Rahmon suddenly lent forward and grabbed me tightly by the wrist. His face was only a few inches from mine. ‘As you know I am coming to Strasbourg next week for meetings with the President

¹⁰² In Fall 2012 and Spring 2013, Stevenson toured several British universities to present his book *Stalin’s Legacy: The Soviet War on Nature*.

of the European Parliament and for a debate with members of the Foreign Affairs Committee. I hope that I can meet you there, and I hope that you will repeat your support for our Rogun hydro project'. (Stevenson, 2012: 169-170)

Rahmon here gets to the point very clearly, asking in a direct way for Stevenson's support inside the European Parliament. And indeed, after this meeting Stevenson wrote an article in which he explained that his goal is "to get necessary information about the Rogun project, and communicate it to the European Parliament, as not all of them understand the importance of Rogun to Tajikistan and Central Asia¹⁰³" (Avesta, 2011c).

Thus, with the involvement of academics, politicians and the media, the Tajik government has disseminated its own expertise-based knowledge, emphasising the absence of seismic risks and therefore countering the scientific assumptions held by the Uzbeks. This seems to complement and strengthen the Tajik strategy on the Rogun dam, in an attempt of providing legitimacy and authority to the overarching Tajik discourse.

4.4. Conclusions

As it was anticipated in Chapter 3, the revamp of the Rogun dam has been a source of regional tensions, leading to the gradual deterioration of bilateral relations between Tajikistan and Uzbekistan. The status-quo originally set by the USSR and later maintained by Uzbekistan, has been challenged by the Tajik hydrocracy through the revitalization of a Soviet project. This last aspect is relevant, as it underlines how the legacy of the Soviet Union still plays a central role in regional water management issues.

The Tajik government has used its bargaining and ideational power to frame the Rogun dam as a cooperative regional project to influence international backers to support – both diplomatically and financially – its construction. In a process aimed at raising Tajikistan's international profile as a water country and at attracting foreign investments, the Tajik hydrocracy has attempted to impose its discourse as the dominant through different tactics and strategies, challenging the hegemonic order set by Uzbekistan in which the upstream country in the Amu Darya basin is not able to exploit its hydroelectric potential.

¹⁰³ As a reaction to Stevenson's declarations, the Ecological Movement of Uzbekistan, an Uzbek political party and environmental movement, sent a letter of protest to the President of the European Parliament Jerzy Buzek, in which Stevensons's declarations were severely criticised (The Ecological Movement of Uzbekistan, 2011).

While the mobilisation of financial resources has proven difficult for the Tajik government, the efforts aimed at raising its profile as a regional and global leader in the promotion of water cooperation have been more successful, and currently Tajikistan emerges as the key player – at least among the Central Asian countries – when it comes to launching global water initiatives and organising international water conferences. While the Tajik government has indeed challenged the status-quo, at present its actions do not seem effective enough to successfully change it. Tajikistan's counter-hegemonic actions in the Amu Darya basin are an on-going process rather than an accomplished one, whose effects will be assessed only when the destiny of the Rogun dam is set.

Chapter 5. The Kambarata Dam

God gave us the River Naryn and Kyrgyz people should make full use of it.

Kurmanbek Bakiev, 2009

The purpose of this chapter is to examine the second of the two case studies of this research, the construction of the Kambarata dam in Kyrgyzstan. The dam will be used to analyse how state power is wielded in international transboundary water relations, and to identify which counter-hegemonic measures have been put in place to favour its construction. Similarly to Rogun, also the revitalisation of the Kambarata project in the 2000s triggered an animated regional debate on whether the dam should be built or not, quickly becoming a matter of foreign policy in regional politics. Also in this case, the Uzbek leadership appears to be the main antagonist to the project, and the two sides have been engaged in a diplomatic arm wrestling that has seen the two countries sponsoring and demeaning the dam.

Following the same structure adopted for the Rogun dam, this chapter first gives an overview of the project, its history and its expected impact. Subsequently, it outlines and categorizes the various counter-hegemonic tactics that were put in place by Kyrgyzstan to favour its construction. Finally, the chapter assesses the main effects of Kyrgyz counter-hegemonic tactics.

5.1. Overview of the Kambarata Dam

The history of Kambarata is not dissimilar to that of Rogun. Both projects were conceived during the Soviet hydraulic mission towards the 1970s, partially built in the 1980s, and then finally abandoned in 1991 with the demise of the Soviet Union. Kambarata was part of the National Plan of the USSR in the Kyrgyz SSR, that from 1960 to 1970 led to the construction of numerous reservoirs and hydroelectric plants in the country. During these years the Soviets tamed the Syr Darya and its tributaries all along its course. These

facilities were intended to favour irrigated agriculture of rice and cotton in Kazakhstan and in Uzbekistan, rather than for the generation of hydroelectricity in Kyrgyzstan (Shalpykova, 2002). The upper stream section of this development scheme consisted in the Upper Naryn Cascade on the Naryn river (a tributary of the Syr Darya), in which the Kambarata complex – formed by the Kambarata I and the smaller Kambarata II hydroelectric plants – is the furthest upstream hydraulic structure (see Figure 21).

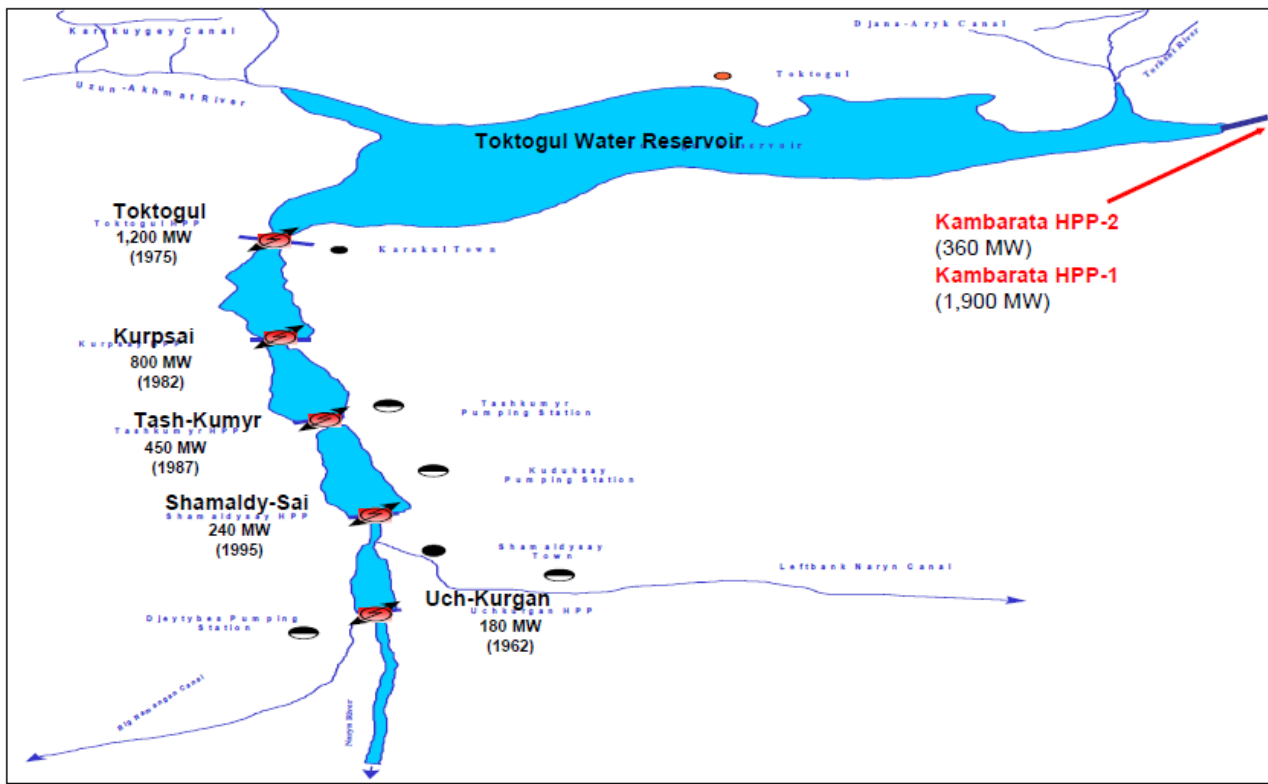


Figure 21: Overview of existing and projected power stations in the Naryn river. Image taken from a presentation delivered in Bishkek in September 2010 by Avtandil Kalmambetov, Deputy Minister of Energy of Kyrgyzstan. Available from: <http://www.carecinstitute.org/uploads/events/2010/ESCC-Sep/Day1-KGZ-Energy-Sector.pdf> [Accessed 2 March 2012].

At this point, it is worth noting that the focus of this study is placed on Kambarata I and not on the smaller (360 MW) Kambarata II HPP. This is due mainly to two reasons. First and foremost, during these last years the regional debate and controversy have been centred on Kambarata I, and not on its smaller counterpart, which will have only a minor impact on the Syr Darya water flow and therefore has not been heavily contested by downstream countries; the construction of Kambarata II cannot change the existing hegemonic order.

Second, since Kambarata II became operational in 2010¹⁰⁴ (Dzyubenko, 2010), it cannot be used as a case study and compared with Rogun, as the focus of this research is on counter-hegemonic and hegemonic measures put in place to favour and obstruct dams which are still under construction. Henceforth, to avoid misunderstandings, in this research the term “Kambarata” will refer only to the Kambarata I HPP.

When completed, Kambarata would stand 275 meters high, with a 4.65 km³ reservoir, a generating capacity of 1,900 MW (four turbines with a capacity of 475 MW each), and a performance of 5.1 billion kilowatt hours of electricity per year (Tetra Tech, 2011). The project was originally designed in the 1980s and construction started in 1986 (Hydroworld.com, 2009). Then, in 1991, with the collapse of the Soviet Union, the project was abandoned because of lack of funds. Nevertheless, as it was the case with Rogun, Kambarata did not die with the Soviet Union, and after a latency period that lasted approximately a decade, in 2003 the Kyrgyz government started to seriously discuss the revitalization of the project (Water Power & Dam Construction, 2003).

Table 6: Concise timeline of the Kambarata project. Source: Annex 4; Tetra Tech, 2011.

1970s	Planning and design of the Upper Naryn Cascade on the Naryn river
1980s	Design of the Kambarata dam
1986	Start of construction works
1991	Interruption of works, due to the collapse of the Soviet Union and subsequent lack of funds
2007	Talks about the establishment of a joint-venture with Kazakhstan and Russia to build Kambarata I and II
January 2009	Russia pledges a US\$ 1.7 billion loan to finish construction of Kambarata

¹⁰⁴ The dam, which is the first hydroelectric power station launched in Kyrgyzstan since the collapse of the Soviet Union, was inaugurated in August 2010 by Acting Kyrgyz President Roza Otunbayeva. Kambarata II was built thanks to a US\$ 300 million loan from Russia (The Times of Central Asia, 2010)

April 2009 Interruption of the credit line from Moscow

March 2013 SNC-Lavalin wins a tender to undertake a feasibility study of Kambarata

5.1.1. Independent Kyrgyzstan and Kambarata

The Government of Kyrgyzstan (GoK) has repeatedly attempted to revamp the construction of Kambarata since independence announcing its revitalization in several occasions, but, at the time of writing, the project is yet to be restarted. Given its high cost, which was recently estimated to vary from 2 to almost US\$ 5 billion¹⁰⁵ (Tetra Tech, 2011: 64), Kyrgyzstan needs to mobilise foreign investments to be able to build the dam. Although a US\$ 1.7 billion deal was struck with Russia in 2009 (Ministry of Economy of the Kyrgyz Republic, 2011) to proceed with the construction of Kambarata, the agreement was cancelled a year later (as it was also the case of the RusAl agreement concerning the Rogun dam). Moreover, the rather turbulent history of the Kyrgyz Republic – arguably the most unsettled of all the five Central Asian countries – did not facilitate the realisation of the hydraulic infrastructure.

Following independence in 1991, the newly elected President Askar Akaev made a genuine effort towards a democratic and pluralist form of governance, distinguishing the country from its more authoritarian neighbours, leading some commentators to refer to Kyrgyzstan as an “island of democracy” (Anderson, 1999). However, a change in Akaev’s leadership tactics and a turn towards a more authoritarian rule (Spector, 2004) undermined this democratic experiment. In 2005, protests over flawed parliamentary elections forced Akaev to flee from his office, leading to a regime change that was chiefly rooted in domestic politics (Lewis, 2008) and that analysts termed the “Tulip Revolution”¹⁰⁶, to match previous events such as the “Rose” and “Orange” revolutions in Georgia and Ukraine¹⁰⁷. As Scott Radnitz (2006) has noted, technically the term “revolution” is not

¹⁰⁵ In 2011 the GDP of Kyrgyzstan was US\$ 6.2 billion (The World Bank).

¹⁰⁶ For a comprehensive overview of the ‘Tulip Revolution’ and of its wider implications, refer to the edited volume *Domestic and international perspectives on Kyrgyzstan's 'Tulip Revolution'* (Cummings, 2009).

¹⁰⁷ For more information on the so-called “colour revolutions” in the former Soviet republics, refer to Ó Beacháin and Polese (2010).

accurate to define the 2005 events in Kyrgyzstan, as rather than a major social and political transformation, what happened resembles to a change in government, “with old patterns reproducing themselves and hindering efforts at real reform on major issues such as corruption and equitable distribution of resources” (Radnitz, 2006: 133).

In July 2005 the opposition leader Kurmanbek Bakiev succeeded Akaev as President of Kyrgyzstan. After an initial optimism for what appeared as a shift towards democratization, Bakiev increasingly consolidated his power, dismissing his political opponents and strengthening his family’s power base in the country (Juraev, 2010). In April 2010, five years after the ‘Tulip Revolution’, a swift and violent rebellion sparked by anger at high energy prices and widespread corruption and nepotism, led to the ousting of Bakiev (International Crisis Group, 2010). At this point, Roza Otunbayeva, a former Member of Parliament (MP), became the interim president of Kyrgyzstan and remained in office until December 2011, when Almazbek Atambayev was elected the fourth President of Kyrgyzstan.

While this stormy past has caused changes in the GoK’s attitude towards Kambarata over the years, the dam remained an appealing project to each Kyrgyz regime, as its successful completion would probably boost the popularity of the ruling government (Kraak, 2012: 193). Yet, whereas the Tajik hydrocracy has managed to keep an unvaried position towards the Rogun dam over the last decade, in Kyrgyzstan the situation lacked such continuity, and for instance neither Akaev nor Bakiev was able to form lasting transmission belt parties (Cummings, 2012; 73). As Holsti noted, every decision-maker is in part a prisoner of beliefs and expectations that inevitably shape his definitions of reality, and make him different from anyone else (Holsti, 1967: 39). Accordingly, each Kyrgyz leader supported the construction of the dam, but with varying levels of enthusiasm. If for instance Akaev sustained Kambarata, especially during the last years of his presidency, it was under Bakiev that the dam became a national priority, and some observers saw the dam as his political pet project (The Times of Central Asia, 2011). Conversely, Bakiev’s successor, Roza Otunbayeva, has been more cautious on the necessity of building the dam at all costs.

Different internal situations in Tajikistan and in Kyrgyzstan resulted in different dam discourses and rhetoric. While in Tajikistan there is a rubber-stamp Parliament and Rahmon

tightly controls the opposition (Olcott, 2012), in Kyrgyzstan the opposition has the possibility of expressing its dissent inside the Parliament, and the Kyrgyz Republic remains the most liberal of all the five Central Asians, with the most vibrant contestational politics (Cummings, 2012: 64). Therefore, unlike the Rogun dam, the ownership of the Kambarata dam and the way the project money was being administered has been contested by Kyrgyz members of the Parliament, and predominantly by Roza Otunbayeva when she was a parliamentarian for the Social Democratic Party of Kyrgyzstan during the Bakiev rule.

5.1.2. Between corruption and internal criticism

The hydropower sector is frequently linked with corruption (Wiehen, 1999; McCully, 2001; Pearce, 2007). Transparency International, an NGO which monitors corporate and political corruption, dedicated its 2008 Global Corruption Report to “Corruption in the Water Sector”:

The hydropower sector’s massive investment volumes (estimated at US\$50–60 billion annually over the coming decades) and highly complex, customised engineering projects can be a breeding ground for corruption in the design, tendering and execution of large-scale dam projects around the world. [...] Of the US\$11.1 trillion the world is predicted to spend on energy infrastructure between 2005 and 2030, US\$1.9 trillion may be expected to go toward hydropower. These large numbers create multiple opportunities for bribery, fraud and other forms of corrupt behaviour. [...] Combined with a lack of transparency, this provides fertile ground for manipulation and abuse. (Transparency International, 2008: xxv, 86-87)

Corruption and nepotism were also among the main reasons behind the ousting of both Akaev and Bakiev. Although in the aftermath of the ‘Tulip Revolution’, Bakiev declared that the new Kyrgyz government would make of the fight of corruption one of its priorities (Mayak Radio, 2005), Kubanychbek Idinov, a former parliamentarian, later observed that the scope of corruption became even wider in the period 2005-10. Maxim Bakiev, the son of Kurmanbek, has been involved in a corruption scandal concerning Kambarata II, and was accused of diverting into his private bank accounts US\$ 200 million from the 300 lent by Russia (Karabayev, 2010). It is not surprising, then, that the financial management’s transparency of the Kambarata project has often been questioned, particularly for what concerns the US\$ 1.7 billion Russian loan secured in 2009 (see paragraph 5.3.2.2). And besides corruption, even the necessity of constructing Kambarata (with or without Russian

money) has been subject to considerable criticism inside Kyrgyzstan itself. For instance, in December 2008, Roza Otunbaeva, interrogated the Kyrgyz Parliament on the matter:

Will the Russian \$1US.7 billion loan for construction of Kambarata-1 water power station bring benefit for Kyrgyzstan and does it meet interests of Kyrgyzstan? Frankly speaking, this is a commercial loan. With this loan the public external debt of Kyrgyzstan will double. Why do we drive ourselves into the grave? [...] We will benefit nothing. Prior to any agreements we should think about interests of the state. (AKIpress, 2008c)

Otunbayeva saw the Russian involvement as particularly harmful¹⁰⁸, both economically and in terms of water ownership. Just before the deal with Russia was signed, she noted how “A foreign state is taking advantage of a difficult economic situation to become owner of water. Kyrgyzstan itself has paved the way for Russia to own our water. Will Kyrgyzstan retain its independence or not?” (BBC Monitoring Central Asia Unit, 2009d). Subsequently, the day after Tursun Turdumambetov, the head of the State Committee for the Management of State Property, submitted a bill to nullify the law on constructing and running the Kambarata I and II HPPs (BBC Monitoring Central Asia Unit, 2009e), Otunbayeva took again a stance against her government:

The Kyrgyz authorities must admit that their measures to carry out Kambarata hydroelectric power station projects are not based on any economic calculations. [...] Television advertisements about the construction have already pulled the wool over our eyes. It should be pointed out that the incumbent president's election programme was based exactly on this project. However, we see today that they are talking nonsense to people. It turns out that Kyrgyzstan is unable to complete this project on its own, without bringing investment. [...] What kind of organization [the state-run Development Fund charged to manage the Russian money] is it? Why is the government's guarantee insufficient for this organization to allocate 100m dollars? This is the people's money. It turns out today that the government is forced to kneel and beg its own money from this fund. (BBC Monitoring Central Asia Unit, 2009f)

Then, in the wake of the 2010 coup, Otunbayeva emerged as the leader of the Kyrgyz interim government, and maintained this position until the end of 2011. The transition from being at the opposition to leading the government, also changed Otunbayeva's position

¹⁰⁸ However, in June 2010, when local Kyrgyz and ethnic Uzbek youth clashed in the Kyrgyz city of Osh leaving hundreds dead, the then Kyrgyz interim President Roza Otunbaeva asked for Russian military intervention to calm down the situation (BBC News, 2010).

towards Kambarata, and the new President became less critical of the project. On the contrary, at the launch of the first unit of Kambarata II in August 2010, Otunbayeva seemed to have become quite supportive of hydroelectric projects:

In such a difficult time as Kyrgyzstan is going through, the launch of the first generating unit at Kambarata-2 HPP is a historic event for the country. [...] The construction and launch of this HPP shows the power of our country and we do not intend to turn away from projects for further building of Kambarata-2 and Kambarata-1 HPPs. [...] The building of Kambarata strengthens the country's energy security, ensures the uninterrupted work of the hydropower system, and will completely cover all the republic's demand, and make it possible to develop its export potential, carrying out the export of electrical energy to Afghanistan and Pakistan in the future. [...] We will be able to live well in both winter and summer, and are increasing our export potential. (The Times of Central Asia, 2010)

Nevertheless, despite this new attitude, in November 2010 Otunbayeva decided that the construction of Kambarata would begin only after a review of the dam is completed, in line with Uzbek reiterated requests and following a path similar to that of Rogun. Thus, it can be argued that by treating Kambarata as an open issue, Roza Otunbayeva successfully managed to freeze a project that she previously criticised, passing on the responsibility of its construction to her successors, that, in March 2013 hired the Canadian Company SNC-Lavalin to undertake a feasibility study of the project (Eurasianet, 2013), that should be released in Fall 2013 (Sytenkova, 2013).

5.2. Expected impact of Kambarata

If completed, a structure of the size of Kambarata will have an impact at both the national and regional level. The production of hydroelectricity will benefit the crisis-prone Kyrgyz energy sector, and the dam could also provide popularity to the government. Yet, the dam will impact the water flow of the Syr Darya and will have also other environmental consequences that have originated an animated regional debate. This section outlines the various ways in which the dam could impact on Kyrgyzstan and on its neighbours.

5.2.1. Boosting Kyrgyzstan's energy production

In line with the Soviet hydraulic mission, Kambarata was originally projected to facilitate irrigation in the downstream republics rather than to produce hydroelectricity. However, this order of priority changed after the collapse of the Soviet Union, and today

the importance of the dam lies in its hydroelectricity generation capacity. This is because the vanishing of the centralised Soviet resource management system made the achievement of energy self-sufficiency one of the key goals of post-soviet Kyrgyzstan (Wegerich, 2009: 29), that given the lack of other natural energy resources decided to expand its hydropower production.

90 % of the energy produced in Kyrgyzstan is hydroelectric, and yet, the country has developed only 10 % of its potential. The country has 17 operating hydroelectric plants¹⁰⁹, that form the Toktogul cascade. All of them (besides Kambarata II) were built during the Soviet period and are today in need of repair, because of protracted lack of maintenance during the last decades (Zozulinsky, 2010). The total hydroelectric capacity installed is 2,950 MW, and the largest operating plant is Toktogul, that with its 1,200 MW of installed capacity is considered the flagship hydropower station of Kyrgyzstan (Elektricheskiye Stantsii, 2006).

Since 2007-2008, the country's dependence from hydroelectricity, along with a string of dry summers and extremely cold winters, has engendered a series of harsh energy crises that left a substantial part of the population without access to reliable supplies of gas, electricity and heat. Besides leaving Kyrgyzstan without the ability to produce hydroelectricity, low water levels at the Toktogul reservoir negatively impacted on irrigated agriculture in Uzbekistan and Kazakhstan in summer. During the winter of 2008-2009, rural areas in northern Kyrgyzstan and even in the capital Bishkek had electricity only for a few hours a day, and increasing anger and frustration among the population started to seriously challenge Bakiev's leadership (Ferghana, 2008), which was being blamed for his incapacity of managing the crisis (Eurasianet, 2008b).

Another energy crisis hit the country in 2009-2010, and overall, household energy prices during 2007-2010 rose by 81 %, due to inefficiencies in the energy system (UNDP Bureau for Europe and CIS, 2011). After three years of recurrent energy crisis and increases in energy prices, discontent and frustration among the people of Kyrgyzstan led to the ousting of Kurmanbek Bakiev in 2010. However, instead of addressing this energy emergency by repairing the losses and inefficiencies in the energy system, the solution

¹⁰⁹ In addition, Kyrgyzstan has two thermal power stations, with an additional installed capacity of 659 MW. Thus, the total installed capacity of the country is around 3,600 MW.

proposed by successive Kyrgyz regimes has been the construction of new dams (Kraak, 2012; Kalmambetov, 2010), and of one in particular, Kambarata.

Thanks to the 1,900 MW generated by Kambarata, Kyrgyzstan would have a 65 % increase in its total hydroelectric installed capacity, sufficient to meet the country's demand for power in the winter period (European Bank for Reconstruction and Development, 2009: 180). Moreover, alike Rogun, thanks to the CASA transmission line (see Figure 19) Kambarata would allow Kyrgyzstan not only to become energy self-sufficient, but also to sell electricity to neighbouring countries such as Afghanistan, Pakistan and China. Therefore, although the project is extremely costly (according to some analyst, it can be even considered as anti-economic; Tetra Tech, 2011: 74), and would make Kyrgyzstan even more reliant on hydroelectricity, the GoK portrays it as the best solution to solve the country's energy crisis. This is because, besides its undeniable contribution to the country's energy sector, Kambarata could also help the government gain popularity and legitimacy.

5.2.2. Kambarata is good for Kyrgyzstan!

Symbols play an important role in Central Asian politics. Chapter 4 outlined that Matveeva's (2009) analysis effectively underlines how symbols are used by Central Asian leaders to create a legitimisation framework that can help them maintain power. Murzakulova and Schoeberlein have also acknowledged the importance of symbols and ideology in the efforts carried out by Kyrgyz leaders to "invent" legitimacy in Kyrgyzstan, stressing how the Gramscian concept of persuasion is useful to understand the country's nation-building process (Murzakulova and Schoeberlein, 2009). And indeed, the symbolism that can be attached to a mega-structure like Kambarata is significant. Feaux de la Croix observes that the construction of the Toktogul dam in the 1960s-70s, epitomised the classical Soviet slogans on human's mastery over nature and on forceful domination of rivers, with Lenin's insight "Communism is Soviet power plus the electrification of the whole country" adorning the dam's turbine hall (Feaux de la Croix, 2011: 495). Similarly, in her study of moral geographies in Kyrgyzstan, she notes that the Kambarata dam can be interpreted as "a novel effort of the Kyrgyz government to boost its legitimacy and regional power" (Feaux de la Croix: 2010: 27).

To the same extent, Kraak explains how directing attention to a large-scale state-sponsored project like Kambarata could surely benefit the elites: “a new dam the size of the Kambarata-I would contribute to both national pride and Kyrgyzstan’s regional power. [Bakiev] presents the dam as a national project, notwithstanding the financial aid from Russia and elsewhere that would be required” (Kraak, 2012: 188). Kraak also notes how, over the period 2005-2010, the increasing tension between Kyrgyzstan and Uzbekistan has been blended into a discourse of nationalism, with Kambarata being used as a tool to conduct foreign policy and assert (or at least attempt to) regional power. It appears that, similarly to Rogun, the tension with Uzbekistan – which strongly opposes the construction of large-scale dams in Central Asia – has had the effect of further reinforcing the nationalistic sentiment attached to Kambarata, whose construction comes to symbolise the right of self-determination of the Kyrgyz people, which independently decide what to do with their own natural resources.

The GoK has attempted to persuade its people (see paragraph 5.3.1) that Kambarata is a source of progress and success, of heat and light, in a way that resembles the Tajik rhetoric on Rogun. If the people of Kyrgyzstan accept the government’s representation of Kambarata as right and proper, then the dam, if completed, can unmistakably play a role in the legitimation of the Kyrgyz leadership. This is even more relevant considering that so far the history of the Kyrgyz Republic has been marked by a declining economy, social unrests and dissatisfaction for the government’s inability to offer basic services such as electricity or heating.

5.2.3. Environmental problems and the setting of a precedent

Not only Kambarata could generate large amounts of energy – the equivalent of two nuclear reactors – and help legitimise the Kyrgyz government, but it could also provide Kyrgyzstan with a tool to further control the flow of the Syr Darya, with potential negative consequences for Uzbekistan and Kazakhstan. Although the Syr Darya is much more regulated than the Amu Darya, and thanks to Toktogul Kyrgyzstan can already control the Naryn river, downstream riparians – and particularly Uzbekistan – contest the construction of Kambarata. The reasons of such opposition are both technical and political.

From a technical point of view, this is probably because if Kambarata is operated at the same time as Toktogul, there could be even more spills in the Arnasai depression in Uzbekistan, where the Chardara reservoir is located (Wegerich and Warner, 2010: 327). And indeed, since 1992, when Kyrgyzstan began to increase winter water releases from Toktogul to generate hydroelectricity, billions cubic meters of water have been spilled into the Depression, damaging land and infrastructure and depriving the Syr Darya Delta and the northern Aral Sea of much-needed water (PA Consortium Group, 2004). Although an EBRD study contends that “the release of water from Kambarata-I to generate electricity during the winter will reduce the need for the Kyrgyz authorities to release water from the Toktogul reservoir” (European Bank for Reconstruction and Development, 2009: 180), there is still the risk that the reservoirs are operated simultaneously, thus causing more spills in the Depression, and consequently, the opposition of downstream countries. During a speech delivered in 2009, Kurmanbek Bakiy effectively summarized Kazakh and Uzbek concerns: “I want to straightforwardly quote [what] the president of Kazakhstan and the president of Uzbekistan told me: Kurmanbek Saliyevich, you simply flood us in winter” (BBC Monitoring Central Asia Unit, 2009g). Besides flooding downstream areas, Uzbekistan is concerned that Kambarata might cause a lack of water in the Fergana Valley, the most densely populated territory of Central Asia. In addition, the project is located in an active seismic zone. Since it was designed in the 1970s, when international design criteria for dam hydrological and seismic safety were less stringent, Kambarata might increase the geological hazard of rockfalls and landslides (Asian Development Bank, 2013).

From a political angle, downstream countries’ opposition can be directly linked to the other major Central Asian hydroelectric project, Rogun. Although Rogun is more contested than Kambarata, as it would have a stronger impact on the less regulated Amu Darya water flow (even though also Kambarata could give Kyrgyzstan more control to the water flow of the Syr Darya), the two projects have similar characteristics. Consequently, allowing the construction of Kambarata could facilitate the construction of Rogun, and vice versa, as this would set a precedent that implies the admission from downstream countries that large dams in Central Asia can be built, even if there is no consent from all the parties concerned by the project. In other words, by allowing the construction of Kambarata, Uzbekistan would give up on its own *weltanschauung* concerning the management of shared waters,

which is based on the principle of absolute integrity of the river rather than on that of absolute territorial sovereignty claimed by upstream countries (Dellapenna, 2001).

5.2.4. The ensuing debate

Alike Rogun, Kambarata would have a significance at different levels. Domestically, the dam would allow Kyrgyzstan to meet its energy winter peak demands, while legitimising the ruling elite and boosting its popularity. At the foreign level, the dam would provide Kyrgyzstan with an important tool to conduct foreign policy and use water as a strategic tool. Perhaps more importantly, the construction of Kambarata would set a precedent, opening the way to the construction of other large-scale hydroelectric plants upstream, thus implying a change in the status-quo. Until now, downstream countries have managed to maintain their advantageous water allocation quotas set in the 1980s by the Soviet Union, and upstream countries have not been successful in exploiting their hydroelectric potential. The construction of Kambarata would be a regional historical landmark, which would change the way water resources in Central Asia have been controlled so far.

For these reasons, the revamp of the project in the 2000s has triggered an animated regional debate between Kyrgyzstan, which obviously advocates in favour of the dam, and the downstream countries – whose concerns are voiced predominantly by Uzbekistan – which, coherently with their attitude towards Rogun, strongly oppose the project. On the one hand, the Kyrgyz discourse tends to present the dam as an existential matter, claiming the right of exploiting the waters of the Naryn river for the benefit of the Kyrgyz people, underlining the absence of alternatives and reassuring the downstream countries that the dam will be operated paying attention to the interests of all basin riparians. On the other hand, the Uzbek discourse is analogous to that adopted for Rogun, and the two dams are often treated as a single entity by the Uzbeks, which insist on having an external examination of a project considered outdated and dangerous.

Both sides have carried out a considerable effort to convince each other and the broader international community of the validity of their reasons. To this extent, the strategies carried out by Kyrgyzstan and Uzbekistan can be correspondingly defined as counter-hegemonic and hegemonic, with the former contesting a disadvantageous status-quo, and

the latter aiming at maintaining it unchanged. The following analyses in detail the counter-hegemonic tactics carried out by Kyrgyzstan.

5.3. Kyrgyz counter-hegemonic tactics

In its attempt to build the Kambarata dam, Kyrgyzstan is challenging, contesting and proposing an alternative to the existing status-quo. As Dinar noted (2006: 150), the Kyrgyz Republic has already questioned the status-quo since it got independence, making a number of unilateral decisions (see also chapter 3) that stem from one strategic advantage: its upstream location in the Syr Darya river. Kyrgyzstan contests the old Soviet inter-republican quotas which allocated most of the Syr Darya's water to Uzbekistan and Kazakhstan (Valentini et al., 2004: 62), and the country also seeks compensation from the downstream countries for the annual cost of maintaining the Toktogul reservoir and its related infrastructure. This has led Kyrgyzstan's policymakers to re-evaluate the value of water as a resource with a price (Bichsel, 2011: 26). In 1997, Akaev signed an edict codifying his country's right to profit from water resources within its territories, threatening to sell water to China if Uzbekistan refuses to pay (Eurasianet, 2000). Similarly, in 2001, with the adoption of the "Law of the Kyrgyz Republic On Inter-State Use of Water Objects, Water Resources and Water Economy Constructions", Kyrgyzstan categorized water as a commodity, placing it at the same level of oil or gas (Legislative Assembly of the Kyrgyz Republic, 2001). However, as it was explained in paragraph 3.6.2, the Kyrgyz water law was never enforced, and the issue of the rights of the upstream and downstream states remained unresolved (Hodgson, 2010: 3).

Besides the water payment issue, Kyrgyzstan has also not been able to take advantage of its upstream position and tap its significant hydroelectric potential. The completion of Kambarata (that along with Rogun, would be the first major dam ever finalized in Central Asia since the collapse of the Soviet Union) would imply the fulfilment, at least in part, of Kyrgyzstan's hydropower ambitions, as well as the assertion of the country's God-given right to make full use of the waters of the Naryn river. While laws can be unilaterally adopted (as the "water price" laws), the same cannot be said for dams of the size of Kambarata, for which a small country like Kyrgyzstan needs to get international support and funding before being able to proceed with its construction. Therefore, and similarly to

what was observed with Rogun, the GoK is using its ideational and bargaining power to persuade its neighbours and other relevant international partners of the necessity and rightfulness of the Kambarata project. This effort aimed at getting consent is solely based on the use of soft power which, in this case, can create the preconditions to increase Kyrgyzstan’s hard (or in this case perhaps more appropriately “structural”) power, once and if the dam is completed.

Overall, the Kyrgyz strategy to facilitate the construction of Kambarata is based on three main goals: achieve regional, and to a minor extent, international acceptance for the project, mobilize foreign funds, and get internal support. As a result, the GoK has adopted two, often converging, discourses, one for the domestic and one for the foreign level. The Kyrgyz discourse presents Kambarata as a key achievement, as a symbol of success and perseverance, as a key structure conceived to bring well-being to both Kyrgyzstan and the downstream countries. And indeed, underlining the beneficial effects of Kambarata on regional water management, seems to be as important as stressing the positive impact that the dam will have on the Kyrgyz energy and water sectors. Also in this case, Kyrgyz counter-hegemonic strategies are formed by four main tactics, as shown in Figure 22.

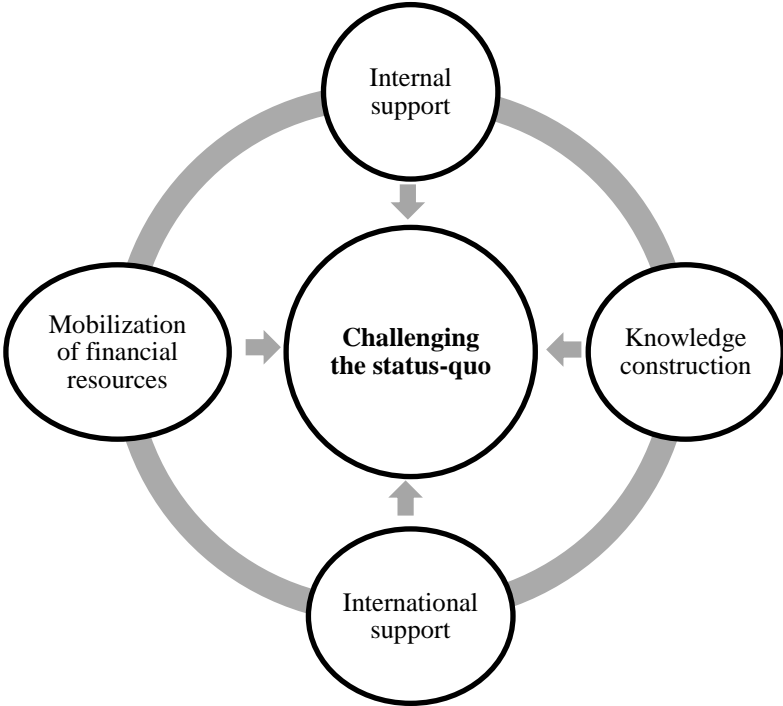


Figure 22: Building the Kambarata dam: the four tactics forming the Kyrgyz counter-hegemonic strategy

Although the tactics adopted by the GoK for Kambarata seem similar to those adopted by the GoT for Rogun, and in fact to many extents they are, there are some significant differences between the two, possibly because of the power shifts in the Kyrgyz republic that have not allowed the same policy continuity as in Tajikistan. These differences will be partly outlined in the remaining of this chapter and in Chapter 7. The following analyses Kyrgyz counter-hegemonic tactics in detail, delineating the main aspects of the Kambarata discourse and the ways in which it has been propagated.

5.3.1. Promoting Kambarata at the domestic level

As Frey noted, images and perceptions play a significant role in politics, and the emotional salience of large hydraulic infrastructures can be used by leaders to gain sacrifices and support that would otherwise be missing (Frey, 1993). This support, for instance, could take the form of financial contributions from the citizens (as in the case of the Rogun dam) or in the ability to freely allocate public funds to a project (as in the case of Turkey's Ataturk dam). The Kyrgyz leadership has sought the support of its people in the realisation of Kambarata, framing the dam as a symbol of progress and modernization and as a solution to most of the problems faced by the country, and, above all, as a key to stop the energy crises that are at the origin of widespread discontent and public unrest. This move can be considered a counter-hegemonic strategy, since a popular perception of the dam as a vital national asset might facilitate its construction, providing the Kyrgyz leadership with legitimacy and a freehand in the management of the financial resources of Kambarata.

While the effects of such major ventures are best observed in the long term, the latest Kyrgyz governments operated more in the short run. The Bakiev Presidency, that was the most involved with the project and with the management of the large Russian loan, held power only for a lustrum, while Otunbayeva's ad interim mandate lasted less than two years. This sharply contrasts with the Tajik political setting in which Emomali Rahmon has maintained power for the last two decades, and where the President and his key men are the ones most likely to benefit from Rogun in terms of popularity and visibility. This notwithstanding, both under Bakiev and (to a lesser extent) Otunbayeva, the Kyrgyz government has used ideational discursive means to disseminate the Kambarata discourse

that, alike the Tajik one, portrays the dam as a vital achievement for the country. This seems indeed to confirm Feaux de la Croix's (2010) assumption about a continuity between the construction of Toktogul – that symbolised the Soviet's slogans on human's mastery over nature – and that of Kambarata, that renews the patriotic feeling historically attached to large dams. And significantly, this quest for patriotism has been in a way institutionalised in 2008, when some members of the Kyrgyz Parliament announced that they were planning to ask the President to formerly label Kambarata an all-nation project, “so that people would have spirit and pride” in the dam”¹¹⁰ (AKIpress, 2008a).

Kyrgyz state-owned radio, TV and the Kabar news agency have functioned as the mouthpiece of the government, duly reporting speeches and declarations on the importance of building Kambarata. The key aspects of this dam rhetoric are well summarized by a speech delivered by Bakiev at a meeting dedicated to a planned explosion aimed at blocking the River Naryn. The event was planned in coincidence with the “National holiday of energy industry workers” on 22 December 2009, and was integrally broadcasted by state-owned Kyrgyz Television 1:

The explosion aimed at blocking the River Naryn was carried out successfully. I want to repeat this again that this is a great event in the history of Kyrgyzstan's development [...] and Kyrgyzstan can be proud of the fact that not only this kind of technology was used but also that it is a rare technology in the world. Its construction [of the Kambarata complex] started in 1986. However, even such a power as the USSR was forced to suspend the construction because of limited funds. But after the Union collapsed, we became an independent sovereign state. Frankly speaking, this was already a dream, and many top officials forgot and did not dream that we together with you would not only construct but complete its construction. Today I think nobody doubts that Kyrgyzstan will complete [the construction of] the Kambarata 2 and Kambarata 1 and this way we will go upstream along the River Naryn. (BBC Monitoring Central Asia Unit, 2009g)

Bakiev presents the dam as the most viable and only option to achieve energy security, underlining the absence of alternatives. He emphasizes the beneficial effects that the dam will have on Kyrgyzstan and on irrigated agriculture downstream, and at the same time he remarks the right of the Kyrgyz people to use the water of the Naryn river for their greater good, thus connecting with the conception of water as a national commodity. Bakiev also underlines how the project deploys some state-of-the-art technology, and exalts the

¹¹⁰ In that occasion, the MPs also declared that they were going to contribute to the project with a one-off payment from their salary.

significance for independent Kyrgyzstan of finishing something that not even the Soviet Union was able to complete.

Kyrgyzstan's right to build Kambarata and the representation of the dam as a symbol of national pride was extensively used by Bakiev also during his re-election campaign in 2009:

With the completion of the construction of Kambarata No.2 and No.1, the volume of water [in the Toktogul reservoir] will not decrease, but on the contrary it will increase. [...] To be frank, our neighbours - Uzbekistan and Kazakhstan - should only welcome our decision because we are increasing the volume of water. This means, we will give them water when they need it. Kyrgyzstan must not be considered a small nation when the Kyrgyz nation's national interests are considered. Therefore, the Kambarata No.1 and No.2 projects will have no damage on the neighbouring states. [...] Therefore, we are building Kambarata No.2 and we will also build Kambarata No.1. We need them. (BBC Monitoring Central Asia Unit, 2009h)

Kyrgyzstan is portrayed as a benevolent country, that thanks to Kambarata will be able to take care of its national interests while sharing with its neighbours the benefits stemming from an increased control of the Toktogul reservoir. The representation of Kambarata as a cooperative regional element that will help solving the country's energy crisis while regulating the water flow of the Syr Darya, was also adopted by Roza Otunbayeva during her ad-interim Presidency, even though when she was a MP she appeared less enthusiastic towards the realisation of the project and she often criticised the management of the financial resources generated by the Russian loan (see paragraph 5.1). Thus, it appears that although Kyrgyz citizens have not been called to financially contribute to the construction of the dam¹¹¹, the GoK has nevertheless created a patriotic dam rhetoric with the intent of persuading its people about the necessity and importance of building the Kambarata dam.

A similar discourse, although more focused on the regional dimension of the dam, was also disseminated at the international level, with the goal of mobilising international financial resources and getting international acceptance for the project. These two correlated elements of the Kyrgyz counter-hegemonic strategy are analysed in the

¹¹¹ It is worth noting that for what concerns the smaller Kambarata II, in 2008 the residents of the Suzak rayon collected 1 million Kyrgyz Som (roughly US\$ 20,000) to facilitate the construction of the dam (AKIpress News Agency, 2008b). Also, in January 2008 Bakiev suggested the emission of long-term bonds and the launch of IPOs for large national projects such as Kambarata I and II, but however these proposals were not followed by concrete actions (Russia & CIS Business & Financial Daily, 2008).

following sections, beginning with the tactics aimed at mobilising financial resources and continuing with those aimed at raising international awareness on the necessity of building the Kambarata dam.

5.3.2. Mobilization of financial resources

As outlined in paragraph 5.1, the high cost of Kambarata does not allow the Kyrgyz government to unilaterally proceed with its construction. Recent cost estimates vary from 2 to almost 5 US\$ billion¹¹², an enormous amount for the Kyrgyz economy, that in 2011 generated a GDP of US\$ 6.2 billion and whose expenditures in the national budget amounted to less than US\$ 2 billion. The situation is thus similar to that of the Rogun dam, since a co-financing scheme is essential to proceed with the construction of the dam. This aspect is also connected with the necessity of getting international support and consent for the construction of the dam, since the more a project is controversial, the more this deters potential investors to participate in its realisation, as for instance it has been the case for Russian participation in the Rogun dam.

As Erika Marat noted (Marat, 2008b: 12), Kyrgyzstan's lack of expertise in the hydro-energy sector and the country's rampant corruption, have made of Kambarata an economically unattractive project to foreign investors. Moreover, and this applies to most large dams worldwide, projects of this scale are often anti-economical and their construction always takes longer than originally planned (McCully, 2001; Mitchell, 2002). The investment appears to be a political rather than an economic one, both for the Kyrgyz government, which would have a payback in terms of legitimization and popularity, and for the potential financial partner, which could sit on the board of the plant and have political influence while at the same time projecting a positive international image in the region. Although the World Bank could have been an ideal, neutral partner and contributor to the Kambarata complex, the financial institution argues that the economic cost of 0.0717 US\$/kwh is too high and is therefore not interested in a participation (Moller, 2009: 25). For this reason, the Kyrgyz government has focused its attention on individual donors, targeting, among the others, neighbouring Russia and Kazakhstan.

¹¹² Although the Kyrgyz Ministry of Industry, Energy and Fuel Resources estimated in 2008 that the construction of the Kambarata dam will require US\$ 1.5 billion (AKIpress News Agency, 2008a).

5.3.2.1. The international consortium and the involvement of Kazakhstan

In 1992, the newly-born Kyrgyz government held talks with the American company General Electric concerning the construction of a dam complex in the Naryn River (Europe Information Service, 1992). Nevertheless, after this first, early attempt of attracting a foreign investor, the Kyrgyz administration put the project aside for the next ten years, and seriously decided to revamp it only in 2003. Overall, besides the signing of a few, ineffective, agreements with China (Central Asia & Caucasus Business Weekly, 2008), the American aluminium company Alcoa (Central Asia General Newswire, 2007a), and the South-Korean electric power corporation KEPCO (Central Asia General Newswire, 2007b), it appears that the efforts put through by the Kyrgyz government had two main objectives: at the multilateral level, to set-up a joint venture to build the Kambarata complex; at the bilateral level, to secure a more direct, individual involvement of Russia. While the former did not produce any substantial result, the latter materialized into a substantial loan.

The initial structure of the consortium proposed by Akaev in 2003 included Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan, Russia and even the World Bank (Water Power & Dam Construction, 2003). Thus, besides Turkmenistan, which traditionally has had a rather isolationist approach to regional issues, all the Central Asian republics were interested in building the Kambarata dam, which was at the time perceived as a regionally beneficial water project. The idea was reiterated one year later by the then Kyrgyz Foreign Minister Askar Aytmatov, that expressed his country's willingness to create an international water and energy consortium within the framework of the Central Asian Cooperation Organization (CACO), with the involvement of Kyrgyzstan, Kazakhstan, Tajikistan and Uzbekistan (BBC Summary of World Broadcasts, 2004b). The consortium was apparently put aside until 2007, when the Kyrgyz First Deputy Prime Minister Daniyar Usenov, announced that since power engineering is considered Kyrgyzstan's second wealth after gold, the Kambarata project had been included in the state economic development programme. The partners of this new, reconsidered joint-venture were reduced to three, with Kyrgyzstan, that would have owned 34 % of the shares, and Russia and Kazakhstan 33 % each (BBC Monitoring Central Asia Unit, 2007b). And a month later, as an outcome of Nazarbayev's visit to Kyrgyzstan, a joint venture involving state-owned companies from

Kyrgyzstan, Kazakhstan and Russia was established, with the intent of finishing construction of the Kambarata complex (Eurasianet, 2007b). However, the projected joint venture never became operational, as Kazakh investors eventually decided to abandon the scheme.

Indeed, the Kazakh government's fluctuating attitude towards the Kambarata dam, has influenced the country's willingness to invest in the project. In 2000, Kazakh Prime Minister Kasymzhomart Tokayev expressed serious concern about the dam and proposed that the project should be "blocked in every way", since it could lead to water being drawn away from the Toktogul hydroelectric station thus reducing water supplies in Kazakhstan (BBC Monitoring Central Asia Unit, 2000). Subsequently, in the period 2003-2007 Astana showed interest in investing into the Kambarata dam, as revealed by the abovementioned creation of a consortium and by the Kazakh announcement to bid in the tender for the Kambarata stations (Global Insight, 2007b). Then again, when Uzbek lobbying against large dams intensified in 2008, the Kazakh government became more cautious about the project and decided to leave the consortium, and eventually Kazakh President Nazarbayev released a statement in which he was extremely critical about the construction of hydroelectric power plants in the region (Defense and Security, 2010). Hence, the attitude of Kazakhstan towards the realisation of the Kambarata dam has followed a parallel path as that towards the Rogun dam, and the interest displayed formerly gradually vanished as the projects became more controversial. Thus, only one out of the six partners of the initial consortium remained actively engaged in the negotiations, Russia.

5.3.2.2. The Russian loan and the Manas affair

It was mentioned that the Soviet Union contributed to the construction of numerous large HPPs within its Republics and around the world. Similarly, the Russian Federation has also been very interested in investments in hydropower, and during the last two decades Russian firms (among the others, RusAl, RusHydro and Zarubezhstroy¹¹³) have participated to several hydropower projects worldwide. It is not surprising then, that an unfinished Soviet project like the Kambarata dam has later attracted investments from Russia, in the

¹¹³ For instance, Zarubezhstroy, that controls power plants in African countries such as Uganda and Libya, in 2011 has agreed to invest US\$ 700 million in the 464 MW Rumakali hydropower project in Tanzania (Bloomberg, 2011).

same way as the Rogun dam has done in Tajikistan. This is also due to the fact that, besides attempting to create an international consortium, the Kyrgyz government has repeatedly tried to involve Russia as the sole investor of the Kambarata project, with overall mixed results.

Already in 2004, Askar Akaev reached an agreement in which RusAl confirmed its intention to invest US\$ 1.5 billion in the Kambarata power station (BBC Summary of World Broadcasts, 2004c). A year later, in the aftermath of the Tulip Revolution, Kyrgyz acting Foreign Minister Roza Otunbayeva declared that the agreement with RusAl was still in force, since “projects for the construction of the Kambaratin [sic] hydropower plant are of great significance for our country” (Interfax, 2005). Nevertheless, the situation remained fuzzy and the project was at a standstill. The newly elected President Bakiev had meetings with representatives of the Russian government trying to get them interested in the dam (Ria Novosti, 2006), and in 2007 Russia partially wrote off Kyrgyzstan's debt, showing again interest in the project. Then, at the end of 2008, the Kyrgyz Prime Minister Igor Chudinov announced that Russia finally agreed to lend US\$ 2 billion to the Kyrgyz government, including US\$ 1.7 billion for the construction of Kambarata I and II (AKIpress, 2008b). And indeed, during a visit to Moscow in February 2009 Bakiev announced that the loan was secured. Interestingly, this event coincided with Kyrgyzstan's announcement that the United States should leave the Manas airbase (Emerson et al., 2009: 58), a strategic military airport near Bishkek that the US Air Force had rented to support the wars in Afghanistan and Iraq, and whose military presence in Russia's backyard had long vexed the Kremlin.

Using Manas as a bargaining tool, Bakiev struck a quid pro quo deal that was, predictably, received with dissatisfaction by Uzbek President Karimov, that was possibly also taken by surprise by this new development. Only a few weeks earlier, in fact, Dmitry Medvedev had clarified during his visit to Uzbekistan that new HPPs in Central Asia shall be built only with the consent of all parties involved, thus causing a little diplomatic crisis with Tajikistan (see Chapter 4). Now, on the contrary, Russia was endorsing and facilitating the realisation of the Kambarata project, since the offset was worth the cost. Therefore, during the important IFAS meeting of the five Central Asian Presidents in April 2009, Karimov criticised Moscow's influence on regional issues, declaring that “third countries

which would very much like to take part in this discussion are also pursuing their own aims” (Eurasianet, 2009).

However, the Uzbek President could stop worrying shortly afterwards, since Bakiev did not manage to close the American air base at Manas. On the contrary, in July 2009 the US signed a new lease for Manas that was much more profitable for the Kyrgyz government. This new development infuriated the Russian leadership, that suddenly interrupted the credit line, de facto cancelling the deal. The Kyrgyz government did not return the money already received, and shortly before the overthrow of the Bakiyev regime in April 2010, Kyrgyz representatives were still complaining that Russia had failed to deliver the loan promised for Kambarata (International Crisis Group, 2010). One of the first initiatives of the new Otunbayeva government was to send the then ad-interim Prime Minister Atambayev to Moscow, to discuss several issues including the Kambarata credit (Kraak, 2012: 192). But after the disappointment provoked by the Manas lease, the possibility of having Russia investing in the Kambarata project seems unlikely, unless until trust is restored.

5.3.3. International support

It appears then, that despite the attempts that the GoK has carried out to attract investors to the project, regional controversies and geopolitical manoeuvrings have so far made these efforts ineffective. This has increased the necessity of giving visibility to the project, getting international support and consent to its construction, and projecting a positive international image of the Kambarata dam, since this could make the dam less contentious and facilitate its realisation. In a similar way to the Rogun dam, persuading regional and international partners of the necessity of building the Kambarata dam for the wellbeing of all Central Asian countries constitutes a key element of Kyrgyz counter-hegemonic strategies.

The Kyrgyz government has used ideational means to disseminate and attempt to impose its discourse as the dominant one. What is being questioned here is the prevailing belief that no new HPPs can be built in the Aral Sea basin, and implicitly, that water cannot be used as a commodity. While the latter point had been already challenged by unilaterally adopting (and later cancelling) a national law that declared water a commodity, the former cannot be

contested in a similar manner. Besides the fact that, as reminded by Karimov, the construction of the Kambarata dam without the agreement of all the parties involved could lead to serious confrontations and even wars (Reuters, 2012), the GoK does not have the means to unilaterally proceed with the realisation of the project. This calls for more subtle, diplomatic tactics that could change the perception of large dams as potentially harmful and deleterious. The following analyses how the Kyrgyz government has framed the Kambarata dam at the international level, illustrating the various tactics adopted to portray it as a positive and cooperative regional project.

5.3.3.1. Proactive diplomacy

The basic tenet of the Kyrgyz discourse on Kambarata is that the dam will enable Kyrgyzstan to solve its frequent energy crises while better regulating the water flow of the Syr Darya. Downstream Kazakhstan and Uzbekistan will be able to increase their irrigated land, and will no longer suffer from winter flooding thanks to the combined operation of the Kambarata and Toktogul reservoirs. Such discourse is almost identical to the Tajik one on Rogun, which also underscores the positive effects that the dam will have on the energy sector of Tajikistan and on downstream irrigation thanks to the combined operation with the Nurek reservoir. What differs, though, is the emphasis with which this discourse has been disseminated by the governments of the two upstream Central Asian republics. If, on the one hand, the Tajik leadership has made of the Rogun dam one of the key priority areas of its foreign policy, on the other hand, the Kyrgyz government has been more moderate in executing its international Kambarata campaign. Arguably, other more pressing matters such as the 2005 and 2010 changes of government, made it difficult for the Kyrgyz government to engage in an all-round Kambarata campaign.

Therefore, the process aimed at getting international support for the Kambarata dam is formed by a series of distinct events, rather than by a long-term awareness-raising strategy. For instance, if we examine the content of the addresses delivered by Kyrgyzstan and Uzbekistan at the UNGA (see Table 7), what emerges is that the Kyrgyz government has never referred neither to the Kambarata dam nor to the development of its hydroelectric potential, while on the contrary, the Uzbek government – the key antagonist of the project – has done this several times.

Table 7: Content of the addresses delivered at the UNGA by Kyrgyzstan and Uzbekistan, 1999-2012. “Water”, “Hydroelectric” and “Kambarata” respectively mean that issues related to the management of shared waters, the development of hydroelectric infrastructures and the Kambarata dam were discussed in the address. Table constructed by author based on data from the United Nations Bibliographic Information System (<http://unbisnet.un.org/>).

UNGA session no. and year	Content of the Kyrgyz Address			Content of the Uzbek address		
	Water	Hydroelectric	Kambarata	Water	Hydroelectric	Kambarata
54 th , 1999						
55 th , 2000						
56 th , 2001						
57 th , 2002						
58 th , 2003						
59 th , 2004						
60 th , 2005	✓			✓		
61 st , 2006				✓	✓	
62 nd , 2007				✓	✓	✓
63 rd , 2008	✓			✓	✓	
64 th , 2009	✓			✓	✓	✓
65 th , 2010				✓	✓	✓
66 th , 2011				✓	✓	
67 th , 2012				✓	✓	✓

Only in three occasions (Bakiev, 2005; Dosbol, 2008; Chudinov, 2009), the representatives of the Kyrgyz government have outlined the necessity to manage regional

transboundary water resources in a cooperative and a mutually beneficial manner¹¹⁴. This has also been the case for the OSCE Ministerial Council meetings, where only once, in 2007, Kyrgyzstan stressed the need to cooperate in the management of natural resources, which “should not become enemies of the state which possesses them” (Karabaev, 2007).

Yet, regional water issues in Central Asia were extensively debated at the 2009 World Water Forum in Istanbul. During his address, the Kyrgyz Prime Minister Igor Chudinov offered a comprehensive overview of the Kyrgyz framing of the Kambarata project, highlighting how the dam could be the best possible solution to solve water and energy problems in Central Asia:

At present time, the Kyrgyz Republic explored only 10% of existing hydro potential. For the last years our state has been using 8,0-9,0 km³ of water resources per year for own needs. The rest of water course – more than 30, 0 km³ of water resources goes to the territory of neighboring countries. [...] Kyrgyzstan believes necessary to consider water problem in direct connection with energetic, as supply of population with electricity and heating at the cost of functioning of hydropower plant is vitally important condition for Kyrgyzstan and Tajikistan as well as water supply for agricultural needs of downstream countries. [...] By putting these [Kambarata I and II] water reservoir into operation, needs in electric energy of the republic will be fully satisfied and it will let work Toktogul hydro juncture in optimal regime, in which downstream countries are concerned. (Chudinov, 2009)

Chudinov’s declaration essentially retraced the concepts outlined by Kurmanbek Bakiev at the tense IFAS meeting held in Almaty a few months earlier. Also in that occasion, the Kyrgyz President remarked how the Kambarata project could satisfy his country’s energy needs while better regulating the water flow for downstream countries (Bakiev, 2009). What is striking in this case is that in spite of the fact that the Almaty gathering had been organised to exclusively discuss issues related to the Aral Sea, Bakiev centred his statement on the Kambarata dam, an issue that should have remained off-limits. Such unexpected development distressed Uzbek President Karimov, and led Nursultan Nazarbayev to rebuke his Kyrgyz counterpart for his undisciplined behaviour¹¹⁵ (BBC Monitoring Central Asia

¹¹⁴ Interestingly, while Tajikistan portrayed itself as a “water country” promoting several UN initiatives such as the “Year of Fresh Water” or the decade “Water for Life”, Kyrgyzstan has put forward a somewhat similar effort to create the image of a “mountain country”. For instance, in 2000 the country supported the FAO initiative “International Year of the Mountains” (Ibraimova, 2000), and in 2007, the then Minister of Foreign Affairs Ednan Karabaev put forward an initiative to organise in Kyrgyzstan the “Second Mountain Global Summit” (Karabaev, 2007).

¹¹⁵ A month later, Bakiyev challenged once more the downstream countries declaring that both phases of the Kambarata project will be built, regardless of those who do not agree with this (Eurasianet.org, 2009a).

Unit, 2009i). Bakiev's move is significant, because it challenges the non-written rule that has kept topics such as the revision of water allocation and the construction of large HPPs out of multilateral discussions between the Central Asian Presidents. This is mostly due to Uzbekistan's emblematic use of bargaining power, that has allowed Tashkent to keep water allocation unchanged after the collapse of the Soviet Union by preventively leaving the issue of their revision out of the regional political agenda.

Underlining the beneficial effects that the project will have in regulating the water flow of the Syr Darya appears to be a recurring element in the Kyrgyz framing of the Kambarata dam. This is relevant, because if downstream countries are persuaded of the veracity of this assertion, they could possibly change their attitude towards the project. One of the keys to make this discourse convincing and get consent, is to back such assumption with authoritative scientific opinions. This dimension of Kyrgyz counter-hegemonic tactics, the construction of knowledge, is analysed in the following paragraph.

5.3.4. Knowledge construction

As outlined in Chapter 4, knowledge construction can be considered both a hegemonic and a counter-hegemonic strategy. This is because expertise-based knowledge may serve to establish a dominant belief, but also to challenge it. For what concerns the Kambarata dam, the Kyrgyz government contests the Uzbek belief that the dam will lead to a decrease in the volume of water flowing downstream. To this extent, the scientific knowledge held up and disseminated by the Kyrgyz government is almost identical to that maintained by the Tajik government and, overall, by most upstream countries when it comes to building a large dam (Molle et al., 2009): the dam will lead to a better regulation of the water flow while also allowing an increase in the irrigated land. Such assumption is at the base of each of the counter-hegemonic tactics carried out by the Kyrgyz government, because it constitutes the central message embedded in each of them. A convincing and respected expertise-based knowledge is a primary prerequisite to successfully persuade regional and international actors of the credibility of Kyrgyz assertions. Besides being a counter-hegemonic strategy in itself, knowledge construction can be arguably considered a broader underlying fundamental for the deployment of ideational power.

However, Kyrgyzstan's lack of expertise in the hydro-energy sector¹¹⁶ (Marat, 2008b; UNDP Bureau for Europe and CIS, 2011) did not facilitate the creation and dissemination of expertise-based knowledge in support of the Kambarata dam, leading the Kyrgyz government to back its statements with external expertise. For instance, the 2004 World Bank report "Water Energy Nexus in Central Asia: improving regional cooperation in the Syr Darya Basin", has been frequently used by representatives of the Kyrgyz government as a source of authoritative knowledge, although the report only dedicated a few and far from enthusiastic lines to the Kambarata complex:

Long-term structural options like the construction of new storage hydroelectric projects Kambarata I (1900 MW) and Kambarata II (360 MW) at an estimated cost of \$1.5 billion upstream of the Toktogul HPP in the Kyrgyz Republic could increase winter power generation without increasing winter discharges. These projects, however, would also substantially increase summer power output and markets for the surplus power have to be found. The projects have to be shown to be the least cost solution to the Kyrgyz power needs and may have to be jointly owned by all relevant riparian countries as well as by other potential buyers of power to enable water sharing and power purchase agreements and to raise funds by spreading the external debt burden among the many owners. (The World Bank, 2004: vi)

Yet, at the abovementioned IFAS meeting Bakiev remarked how the report released by the "authoritative financial institution" wholeheartedly supported the Kambarata project, since the dam would allow Kyrgyzstan to increase winter power generation without increasing winter discharges of water (Bakiev, 2009). In other occasions, the Kyrgyz leadership and state-owned press have disseminated the opinions of Ibrahim Aliyev, a former director general of the company "Naryngidrostroy". A Kyrgyz veteran of the sector, Aliyev presents the realisation of the project as a pressing need for Kyrgyzstan, that will allow the production of precious hydroelectricity while better regulating the operation of the Toktogul reservoir. The opinions of Uzbek scientists are considered unfounded, since they do not have a sufficient amount of knowledge to discuss the issue (Kabar Analitika, 2011). On a more conciliatory tone, this thesis was sustained by the Kyrgyz Minister of Energy and Industry Avtandil Kalmambetov (Kabar, 2011; The European Times, 2011),

¹¹⁶ Driven by the necessity of increasing his country's know-how, in 2007 Bakiev put forward an initiative to set up in Bishkek an international water management academy (in some documents also referred to as the "Water University of Central Asia"), with the declared aim of training highly skilled specialists in the field (BBC Monitoring Central Asia Unit, 2007a). At the time of writing, however, the Academy is yet to be established.

and by the then Prime Minister Daniyar Usenov (BBC Monitoring Central Asia Unit, 2010f), that also proposed to Uzbekistan the realisation of a feasibility study of Kambarata led by a team of experts from Kyrgyzstan.

5.4. Conclusions

Just like regional relations in Central Asia have had three different and evolving phases in the period 1991-2011, also the recent history of the Kambarata project has been marked by three succeeding periods, that correspond to the leadership changes in Kyrgyzstan. Although Akaev supported the project, it was certainly under Bakiev that the Kambarata dam gained more prominence and its realisation became a national priority. After that, the ad-interim Presidency of Roza Otunbayeva has been too brief and transitory to really delineate a strategy towards the project, although also in this period the dam was presented as a cooperative regional project that could help solving the country's frequent energy crises while regulating the water flow of the Syr Darya.

But to what extent were the Kyrgyz counter-hegemonic tactics successful? Despite frequent negotiations with potential investors, regional controversies and geopolitical manoeuvrings have so far made these efforts ineffective. Moreover, the Kambarata dam did not gain an international visibility comparable with other similar projects such as the Rogun dam. Overall, the Kyrgyz strategy lacked the continuity that seems necessary to successfully contest the status-quo and impose a new dominant discourse. The possibility of expressing dissent inside the Parliament and abrupt government changes in 2005 and 2010, did not allow the Kyrgyz leadership to engage in an all-round Kambarata campaign.

The same does not apply to the Uzbek government, that placed its anti-dam campaign among the priority areas of its foreign policy. The following chapter illustrates in detail how Uzbekistan used its power to maintain the status-quo unchanged and hamper the constructions of large dams in Central Asia.

Chapter 6. Uzbek hegemonic tactics

Water resources could become a problem in the future that could escalate tensions not only in our region, but on every continent. I won't name specific countries, but all of this could deteriorate to the point where not just serious confrontation, but even wars could be the result.

Islam Karimov, 2012

Following the analysis of the counter-hegemonic tactics utilised by Tajikistan and Kyrgyzstan, this chapter outlines and categorizes the hegemonic tactics put in place by the Uzbek government to impede the construction of the Rogun and Kambarata dams. This concludes the analysis of how state power has been wielded in Central Asia to favour and obstruct the revitalisation of these two large hydroelectric projects, and outlines the full picture of the regional debate that they have generated.

This chapter first briefly recapitulates on why Uzbek measures can be considered hegemonic, and later analyses them in greater detail. Since the Uzbek government tends to consider the Rogun and Kambarata dams as a nearly unique entity, such approach is also adopted in this analysis, that will thus merge the hegemonic tactics aimed at hampering the construction of both dams in a single chapter. Unlike Tajikistan and Kyrgyzstan, the actions carried out by Uzbekistan are not limited by spatial boundaries, as rather than being about a dam, they are more related to the notion of power and how to maintain it.

6.1. Perceiving a threat

The Aral Sea basin denotes a competitive hydro-hegemonic setting, marked by a contested control of water resources and a dominative form of hydro hegemony exerted by Uzbekistan that, as outlined in the previous chapters, can be considered the hydro-hegemon in both the Amu Darya and the Syr Darya basins. In a competitive hydro-hegemonic setting, disputants consider the resources under negotiations as limited, and parties take a

position and seek power and control (Jarvis and Wolf, 2010: 129). While this hydro-hegemony might be not particularly clear in absolute terms (Wegerich, 2008; Bernauer and Siegfried, 2012), or in comparison with other river basins where the hydro-hegemon appears stronger (e.g. Turkey in the Tigris-Euphrates basin), it is nevertheless rather evident in relation to the two upstream countries, Tajikistan and Kyrgyzstan, that also happen to be the poorer and less developed among the five Central Asian countries. At the regional level, Uzbekistan has been by far the most vocal opponent of the construction of large hydroelectric plants upstream, and has so far managed to impede or slow down their realisation. Uzbekistan has also maintained the consolidated control it has over water resources, keeping unchanged its advantageous water allocation after the collapse of the Soviet Union, thus continuing to practice the water-intensive cotton monoculture, whose income is needed by the Uzbek political elites to support the existing system of social, political, and economic control (Weinthal, 2006). Additionally, since both Kyrgyzstan and Tajikistan depend from Uzbekistan for their imports of natural gas, Tashkent uses the situation to gain leverage on the countries, imposing high purchase prices and uncompromising payment deadlines, and frequently cutting gas supplies, causing several serious energy crises (Fumagalli, 2008).

It was also outlined that, over the last two decades, the incompatibility between water demands of irrigation and hydropower gave rise to a tense confrontation between the upstream and downstream republics on the use and control of the region's water resources (Bohr, 2004). Central Asian leaders tend to portray water as an almost non-negotiable matter, using Islam and its precepts on water (see paragraph 3.2.1) to justify and legitimise their views on how the resource should be used and shared. The Uzbek President Islam Karimov perceives the development of hydraulic infrastructures upstream as an existential threat to the well-being of his country, and opposes these projects vehemently. In this context, Tajikistan's and Kyrgyzstan's flagship water resources development projects, the Rogun and Kambarata dams, have crystallised the upstream-downstream tensions over the differing preference of water use. Their construction could entail an irreversible change in the status-quo that the Uzbek government wants to maintain unchanged.

Although the two projects are not identical, their many points in common and the nature of the threat perceived, led the Government of Uzbekistan (GoU) to treat them as a single

entity. The Uzbek counter-arguments concerning their realisation are essentially three. First, due to the seismicity of the area where they are located, the likely event of a major earthquake could lead to one of the worst man-made catastrophes in history. Second, during the time necessary to fill the two water reservoirs there will be a reduction in the amount of water flowing to Uzbekistan. Third, the impact of these two outdated Soviet projects should be assessed by a UN-backed impartial study carried out by a team of international experts. These are the three contentions forming the Uzbek discourse, that is projected both at the international and domestic level and is disseminated through speeches at international forums, the active criticism of the dams in various settings and the engagement of regional heavyweights such as Russia or Kazakhstan. Uzbek hegemonic strategies – which are based on ideational, bargaining and also hard power – are formed by five main tactics, as shown in Figure 23.

Although these tactics may appear similar to those used by Tajikistan and Kyrgyzstan, there are two important differences. The first is that the Uzbek government, unlike its antagonists, has also used its hard power (see paragraph 6.5) to defend its interests. This can perhaps be explained considering the dominant position (and the stronger military capabilities) that Uzbekistan has in respect to Tajikistan and Kyrgyzstan, that can serve as a deterrent for unilateral and harmful actions that the upstream countries might want to take. The second and more important difference lies in the basic goal pursued by Uzbekistan, that is to maintain hegemony and not to counter it. The dominant position broadens the scope and range of opportunities available to the hegemon, that can reassert and consolidate its interests while eroding those of the hegemonised.

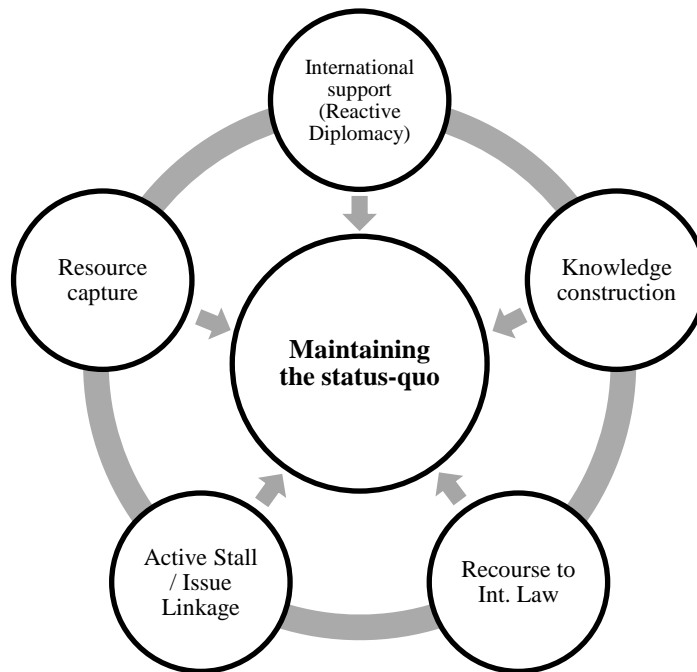


Figure 23: Wielding power: the five tactics forming the Uzbek hegemonic strategy

These five areas of action represent the domains in which the Uzbek government is wielding its power. The basic goal that is being pursued is to maintain the status-quo unchanged. This implies the avoidance of changes in water allocation or in the way water is used and shared. While the Uzbek government can do little to control events such as population growth and climate change that might sooner or later impact the Central Asia's rivers and consequently change the status-quo (Hodgson, 2010), some other events such as the construction of large dams can be more easily controlled or contested. The following analyses the five elements of the Uzbek hegemonic strategy in detail, outlining the main aspects of the Uzbek anti-dam discourse and the ways in which it has been propagated.

6.2. Seeking international support

International support¹¹⁷ is of paramount importance to effectively impede the realisation of Rogun and Kamarata, since having powerful friends can be a very efficient source of

¹¹⁷ It is worth mentioning that also at the domestic level the Uzbek government has extensively used its official newspapers and TV channels to discredit the two dams, and especially Rogun and the Tajik government, possibly because of the particularly tense relationship between the Tajik and the Uzbek governments and their two presidents. For instance, the widely diffused newspaper Narodnoe Slovo has repeatedly reiterated the need for an external expert examination of Rogun (BBC Monitoring Central Asia

power (Warner and Zeitoun, 2006). This aspect seems of particular relevance, because it allows observing how the Uzbek government is using ideational and discursive means to persuade the international community of the validity of its ideas concerning the construction of hydroelectric plants, with the final goal of getting consent and imposing its views as the hegemonic also at the international level. Before it was challenged by Tajikistan's and Kyrgyzstan's alternative discourses, the Uzbek sanctioned discourse – as it is the discourse endorsed by the more powerful side – was also the one heard more often at the international level. The new setting led the Uzbek government to intensify its efforts and to act mostly in reaction to Tajik and Kyrgyz plans. Overall, the three countries have shown little disposition to discuss solutions that would be acceptable to all, and the already acrimonious debate has been further harshened by the GoU's unaccommodating attitude and harsh tones.

6.2.1. Reactive diplomacy

The nearly contemporary revitalisation of the Rogun and Kambarata projects in the 2000s caused the almost immediate reaction of the Uzbek government, which based its international support strategy on what was being said and done by the Kyrgyz and the Tajik government. Table 8 – that compares the content of the addresses delivered by the three countries at the UNGA in the period 1999-2012 – clearly shows how, starting in 2005, the Uzbek government introduced water and hydroelectric issues in its speeches. This coincides with the moment in which Tajikistan started to raise awareness on the necessity to develop its hydroelectric potential, and more in general, with the disclosure of the upstream countries' hydroelectric ambitions.

Unit, 2010d), warning on the potential catastrophic effects of the dam and defining it – along with the Kambarata dam – a “source of misery and poverty” (Narodnoe Slovo, 2012) . Also, in a report broadcasted by Uzbek TV, the Tajik government was accused of spreading lies on Rogun to damage the friendship between the Uzbek and Tajik peoples (Eurasianet.org, 2010b).

Table 8: Content of the addresses delivered at the UNGA by Uzbekistan, Tajikistan and Kyrgyzstan, 1999-2012. “Water”, “Hydroelectric” and “Kambarata” and “Rogun” respectively mean that issues related to the management of shared waters, the development of hydroelectric infrastructures and the Kambarata and the Rogun dams were discussed in the address. Table constructed by author based on data from the United Nations Bibliographic Information System (<http://unbisnet.un.org/>).

UNGA session no. and year	UZBEKISTAN			TAJIKISTAN			KYRGYZSTAN		
	Water	Hydro	K*/R**	Water	Hydro	R	Water	Hydro	K
54 th , 1999				✓					
55 th , 2000				✓					
56 th , 2001				✓					
57 th , 2002				✓					
58 th , 2003				✓					
59 th , 2004				✓					
60 th , 2005	✓			✓	✓		✓		
61 st , 2006	✓	✓		✓	✓				
62 nd , 2007	✓	✓	✓	✓	✓	✓			
63 rd , 2008	✓	✓		✓	✓	✓	✓		
64 th , 2009	✓	✓	✓	✓	✓	✓	✓		
65 th , 2010	✓	✓	✓	✓	✓	✓			
66 th , 2011	✓	✓		✓	✓				
67 th , 2012	✓	✓	✓	✓	✓	✓			

* Kambarata dam; ** Rogun dam.

However, the Uzbek anti-dam international campaign took off in 2007, mostly as a result of tensions with Tajikistan. As a forerunner of the upcoming conflict, in February

2007, Shavkat Mirziyoyev, the Uzbek Prime Minister, wrote an open letter¹¹⁸ to his Tajik counterpart, Akil Akilov, in which he asked to submit Rogun to “a detailed and independent examination, since it was designed about 40 years ago on the basis of outdated designing, engineering and technological decisions”, and accused the GoT of “full ignorance” for not having thought about the possible consequences of the project (Mirziyoyev, 2007). Playing the card of international support, Mirziyoyev also informs Akilov that the Uzbek view on the dam is supported by organizations such as “the United Nations, European Union, World, Asian and Islamic development banks¹¹⁹, as well as the Russian Federation and its public circles, as well as other countries”, warning the GoT that Uzbekistan will not hesitate to ask support to these organizations in case its request for an external examination is ignored¹²⁰.

A few months later, at the 62nd UNGA, the Uzbek Foreign Minister Vladimir Norov introduced what would be a recurring element in the Uzbek anti-dam rhetoric, the recourse to international law. Quoting the 1991 UN Convention on Environmental Impact Assessment in a Transboundary Context, the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses, Norov notes that “States shall cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith”, reminding to Tajikistan and to the countries interested in investing in Rogun, that according to these legal instruments the impact of any hydroelectric project should be assessed by a team of international experts (Norov, 2007). Uzbek tones harshened at the 64th UNGA, when Norov accused the Tajik and the Kyrgyz governments of carrying on an active manipulation of the public opinion to attract investments for Rogun and Kambarata, ignoring the shrinking of Central Asian glaciers and the seismicity of the area. In addition, Norov made reference to the recent [August 2009]

¹¹⁸ The letter was originally published in Russian in the Uzbek national newspaper Pravda Vostoka, and subsequently translated into English by the Uzbek information agency Jahon and published in all Uzbek embassies’ websites.

¹¹⁹ Uzbekistan evidenced the World Bank support also before the important IFAS (International Fund for Saving the Aral Sea) meeting of the Central Asian Presidents in 2009. In that occasion, the Uzbek newspaper Pravda Vostoka published a letter in which Robert Zoellick, the President of the World Bank, shared Uzbek “concern regarding the delicate ecological balance of the region, and absolute necessity to ensure that the hydropower potential will not lead to a reduction of runoff water volume in states of the lower reaches, as well as the need to consider design of new buildings in seismic zones” (Akipress News Agency, 2009).

¹²⁰ The epistolary dispute on Rogun continued also in 2010, with yet another exchange of bitter letters between Shavkat Mirziyoyev and Akil Akilov.

accident at the Russian hydroelectric power station Sayano–Shushenskaya, to express concern that a similar event could happen at the Rogun and Kambarata sites, thus leaving the people of Uzbekistan without water (Norov, 2009a). A similar warning was also given by Uzbek President Islam Karimov during his address at the Plenary Session of the UN Millennium Development Goals (MDGs) Summit in 2010¹²¹:

It is necessary to take into consideration that the area around the Aral Sea is supplied with water at the expense of the watercourses of the two main rivers - Arnudarya and Syrdarya, and any decrease of the watercourse of these rivers means a radical disturbance of the existing fragile environmental balance in the entire vast region. And in these conditions any attempts to implement projects drafted 30-40 years ago, yet in the Soviet period, to construct in the upper stream of these rivers the large scale hydropower facilities with gigantic dams, and moreover, if to take into account that the seismicity of the area of forthcoming construction makes up 8-9 points, - all of these may inflict an irreparable damage to environment and will be a reason for the most dangerous man-caused catastrophes which we have been witnessing for over the last years. (Karimov, 2010)

These three points – the request for an external evaluation of the project, the necessity to take into account the interests of all countries in the basin according to the 1992 and 1997 UN conventions and the fact that the construction of giant hydro facilities in Central Asia is counterproductive and dangerous – were also the core of the address delivered by the GoU at the 66th (Ganiev, 2011) and 67th (Kamilov 2012) UNGAs, confirming the high priority that the country has been giving to impeding the construction of the Rogun and Kambarata dams. In addition, and mirroring the strategy of the Tajik government, the GoU delivered these messages also at the OSCE Ministerial Council meetings in 2007 (Nematov, 2007), 2008 (Norov, 2008) and 2009 (Norov, 2009b), and, more vehemently, by Islam Karimov at the opening of the Asian Development Bank's board of governors meeting in the Uzbek capital, Tashkent (Agence France Press, 2010). Furthermore, the Uzbek leadership disseminated its criticisms to large HPPs also through the organization of the international conference “Transboundary environmental problems in Central Asia: application of international legal mechanisms to solve them”, that took place in Tashkent in 2010. The event, that was attended by representatives from several UN agencies, international

¹²¹ On this subject, when asked a few weeks later why Uzbekistan is opposing the construction of Rogun, Karimov replied “How can we let the residents of Uzbekistan live without water for eight years, while the Rogun water reservoir is being filled up? What will farmers be doing all this time?” (Interfax News Agency, 2010).

organizations and financial institutions, noted the negative impact that Rogun and Kambarata will have on the environmental situation of Central Asia and, once again, underlined the importance of acceding to the UN conventions on transboundary watercourses (BBC Monitoring Central Asia Unit, 2010b).

6.2.2. Incentives to get allies

Besides working to disseminate its anti-dam rhetoric worldwide, the GoU has been using its bargaining power, mostly under the form of financial incentives, to get support from regional heavyweights and dissuade them from supporting Rogun and Kambarata, creating a condition similar to what Buzan defined overlay. Overlay occurs when the direct presence of outside powers in a region is strong enough to suppress the normal operation of security dynamics among the local states” (Buzan et al., 1998: 12). In the case of Uzbekistan, the country managed to influence Russia and Kazakhstan to such an extent that they eventually decided to withdraw their support to Tajik hydroelectric plans.

For what concerns the Rogun dam, as it was briefly mentioned in Chapter 4 in 2009 the GoU successfully managed to bring on its side of the dispute the Russian government, thus provoking a little diplomatic incident between Tajikistan and Russia. Until then, in fact, the two countries had been involved in protracted negotiations and signed several agreements on a possible Russian participation on Rogun. However, as a result of bilateral talks between Russia and Uzbekistan – that resulted in an agreement in which Uzbekistan decided to supply its natural gas solely to Russia (BBC Monitoring Former Soviet Union, 2009) – Moscow changed its position, as it was also reaffirmed by Russian Deputy Prime Minister Sergey Ivanov during his visit to Tashkent in 2010. Also in that circumstance, Ivanov noted that “construction of major hydroelectric facilities in Central Asia should be carried out in full agreement with the neighboring countries” (BBC Monitoring Central Asia Unit, 2010a), implying that without Uzbek agreement Russia will not support the construction of Rogun. Thus, by granting Russia exclusivity on its gas, Uzbekistan found an ally in its anti-Rogun campaign.

Furthermore, the Uzbek government paid particular attention to the creation of a common downstream threat perception, remarking how the two dams might have potentially catastrophic consequences not only for Uzbekistan but also for Kazakhstan and

Turkmenistan. And indeed, the Kazakh government, which was initially interested in investing in both the Rogun and Kambarata dams, later decided to withdraw its financial and diplomatic support to both projects, joining Uzbek requests for an external examination of the two power plants¹²². This change of views seems to be related to Nazarbayev's initiative to convene the yearly OSCE summit in Kazakhstan, taking advantage of the country's OSCE chairmanship in 2010. Following a visit to Tashkent in which Nazarbayev secured Karimov's support on the matter (Eurasianet.org, 2010b), Nazarbayev fully endorsed the Uzbek position, declaring that no hydroelectric power plant shall be built in Central Asia without the realisation of a neutral impact assessment (Defense and Security, 2010).

Akin bilateral diplomatic activities were carried out with the other downstream country of the Amu Darya basin, Turkmenistan (BBC Monitoring Central Asia Unit, 2009), and in 2011 the two countries signed a Joint Statement, in which they noted that water and energy issues in Central Asia should be solved in accordance with international legal instruments such as the to the 1992 and 1997 UN conventions (BBC Monitoring Central Asia Unit, 2011).

Beyond the creation of a common front against Rogun, Uzbekistan has also been promptly criticizing any initiative conflicting with its goal, in an attempt of deterring potential supporters of the project. For instance, when in 2011 Pakistan announced a plan to import 1,000 MW of Rogun-generated electricity from Tajikistan, Uzbekistan's Ambassador in Islamabad Arif Karimov handed a letter of disapproval to senior officials of the Pakistan Ministry of Water and Power, noting that all downstream riparians opposed the project in absence of an Environmental Impact Assessment. Moreover, as an incentive to refrain Pakistan from supporting Rogun, the Uzbek government offered financial support for the realization of three hydropower plants on the Swat river in Pakistan, that would represent an alternative source of electricity with their total generation capacity of 1,315 MW (AKIpress, 2011).

¹²² It is nevertheless worth mentioning that Kazakhstan is now attempting to play a mediation role to resolve the conflict between Tajikistan and Uzbekistan (Eurasia Daily Monitor, 2013).

6.3. Knowledge construction

Mirroring (and responding to) Tajikistan and Kyrgyzstan, the GoU has constructed and disseminated its own expertise-based knowledge about Rogun and Kambarata. In the case of Uzbekistan, knowledge construction can be considered a hegemonic strategy and not a counter-hegemonic one. This is because, in a similar way than a sanctioned discourse, the science-based knowledge constructed by Uzbekistan is also the one endorsed by the more powerful side. Nevertheless, the confrontation between the two diverging schools of thought is so acrimonious, that it would be appropriate to describe this strategy also as “knowledge destruction” or “discrediting knowledge”, since its main objective seems the portrayal of the “other” as incompetent and fundamentally biased.

These hostilities have been particularly evident between Uzbekistan and Tajikistan. If, in the case of Tajikistan, Professor Dzhonon Ikrami acted as the scientific voice of the government, in the case of Uzbekistan an analogous role is covered by the Ecological Movement of Uzbekistan (EMU), an Uzbek political party and environmental movement which has been very vocal on the Rogun dam, and has often served as the communication arm of the Uzbek government.

For instance, when the MEP Struan Stevenson took position in favour of Rogun (see chapter 4), the EMU sent a letter of protest to the President of the European Parliament Jerzy Buzek, severely criticising Stevensons’s declarations and questioning his environmental expertise:

Is Mr. Stevenson, the member of the Committee of European Parliament on Environment, Public Health and Food Safety, not aware about possible negative consequences of construction of enormous dams? Probably, during his two or three visits to the countries of Central Asia he has not managed to learn environmental problems of all five countries of the region properly. Did he take into consideration the opinion of millions inhabitants, whose conditions of life have worsened, first of all, because of building of the large hydro-power constructions that have created an intense environmental situation in downstream areas of the rivers? It is also word [sic] to recall the address of Mr. Stevenson at the hearings in the European Parliament on “Ecocatastrophe of Aral Sea. Can we rescue the drying Sea?” held in October 12, 2010 in Brussels, where he has been a moderator Stevenson has called EU and the world community for assistance in solving of the Aral Sea catastrophe, naming it a “global problem”. Does Mr. Stevenson not really understand that building of Rogun HPS will become the serious factor that will aggravate the present situation in the Aral Sea area? So, where are logic, intelligence and integrity? (The Ecological Movement of Uzbekistan, 2011)

The letter also warned of the catastrophic impacts of an earthquake in the Rogun area, supporting this statement with an example coming from Europe, the Vajont disaster in Italy (The Ecological Movement of Uzbekistan, 2011). Again, a few months after the decision of the WB to finance a feasibility study and an impact assessment for Rogun, the EMU sent a worried letter to the WB, in which it requested an inspection of the Rogun site. The letter outlined the usual points of concerns for Uzbekistan, and accuses the WB of partiality, as it is “making a one-sided evaluation of the tender procedures for environmental assessment of construction of hydroelectric power station, and do not take into account the interests of all parties, including those countries which are located in the downstream of Amudarya [sic] river” (The Ecological Movement of Uzbekistan, 2010: 3)¹²³.

In addition, *Pravda Vostoka*, the official newspaper of the Cabinet of Ministers of Uzbekistan, has also been active in disseminating scientific evidence against Rogun. The article “Rogun, a tsunami for Central Asia”, published in the aftermaths of the Japan’s earthquake, caused resentful replies from Tajikistan. The piece accuses the GoT of brainwashing its population, and reminds that a Tajik scientist, Sabit Negmatullaev, released an interview to *Itar-Tass* declaring that an earthquake of similar strength than that occurred in Japan already happened in Tajikistan, and could happen again during the next ten years. This, according to *Pravda Vostoka*, proves wrong Tajik Prime Minister Akil Akilov and the other Tajik authorities, which have been betrayed by the “euphoria of their own obsessive fantasies about Rogun” (*Pravda Vostoka*, 2011).

Kyrgyz scientific assumptions on the Kambarata dam have been criticised and contested in a similar way. In 2009, the Uzbek Minister of Foreign Affairs published an article written by Sergei Zhigarev, the Director of the Institute “Gidroproject”, that bitterly criticized Igor Chudinov’s speech at the fifth World Water Forum, reminding the readers that “It goes without saying, and it is clear to any sober-minded person that the 30-years-old projects must be subjected to an independent objective examination (Zhidarev, 2009). Likewise, Natalia Koroleva’s (an official of Uzbekistan's State Nature Committee) article on *Pravda Vostoka*, called for an independent feasibility study for a project that will have

¹²³ In its response, the WB specified that the Uzbek request for inspection is ineligible, as “the issues raised by the Requesters focus on potential harm that could derive from the construction, operation and/or failure of the proposed Rogun HPP, but not from the Assessment Studies that the Bank intends to finance” (The Inspection Panel, 2010: 5).

significant transboundary effects (BBC Monitoring Central Asia Unit, 2009m), while Mahira Usmanova, a researcher of the Seismology Institute of the National Academy of Sciences of Uzbekistan, reminded that hydroelectric facilities such as Kambarata should not be constructed without consideration of seismic issues and geological risks, as this will put in danger all Central Asian countries (Akipress, 2009).

6.4. Recourse to international law

A recurring element in the Uzbek strategy against Rogun and Kambarata has been the recourse to international law. The GoU often buttresses its criticisms to the two dams with a reference to the key principles of international water law: equitable and reasonable utilization, prior notification, causing no significant harm and consultation between basin riparians. This is not surprising, especially considering Uzbekistan's geographical position. Downstream states, in fact, often claim a right to the "absolute integrity of the watercourse", which basically states that upper riparian states can do nothing that affects the quantity or quality of water that flows down the watercourse (Dellapenna, 2001: 269).

Nevertheless, Uzbek interest on international water law seems to have been triggered directly by Rogun and Kambarata, rather than by a genuine commitment to the aforementioned principles. As a matter of fact, Uzbekistan ratified both conventions – the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses – in September 2007 (United Nations, 2013a and 2013b), a date which corresponds in particular with the concretization of Tajik plans on Rogun. As Bo Libert – a UNECE regional advisor that works on water issues in Central Asia and that has closely followed the ratification process of the UNECE Convention – observes (Libert et al., 2008: 15), Uzbek ratification was rapid and, perhaps more importantly, unexpected. However, international water law has still a moral value rather than a binding one, and the legal architecture for international watercourses remains weak (Rieu Clarke, 2012). Instruments such as the 1997 Watercourse Convention have not entered into force, and it is possible that they never will (Hodgson, 2010: 3).

6.5. Beyond diplomacy: active stalling

In September 2012, amid rising tensions, Islam Karimov released a widely-cited declaration in which he warned that “Water resources could become a problem in the future that could escalate tensions not only in our region, but on every continent [...] I won't name specific countries, but all of this could deteriorate to the point where not just serious confrontation, but even wars could be the result” (Reuters, 2012). Even if implicitly, this was the first time that the Uzbek President mentioned the possibility of recurring to the use of force to solve the hydropower row in Central Asia. And in effect, in spite of a very active and varied international strategy aimed at discrediting the two dams through the imposition of a specific discourse, in a few occasions the GoU used its hard power to more directly state its case.

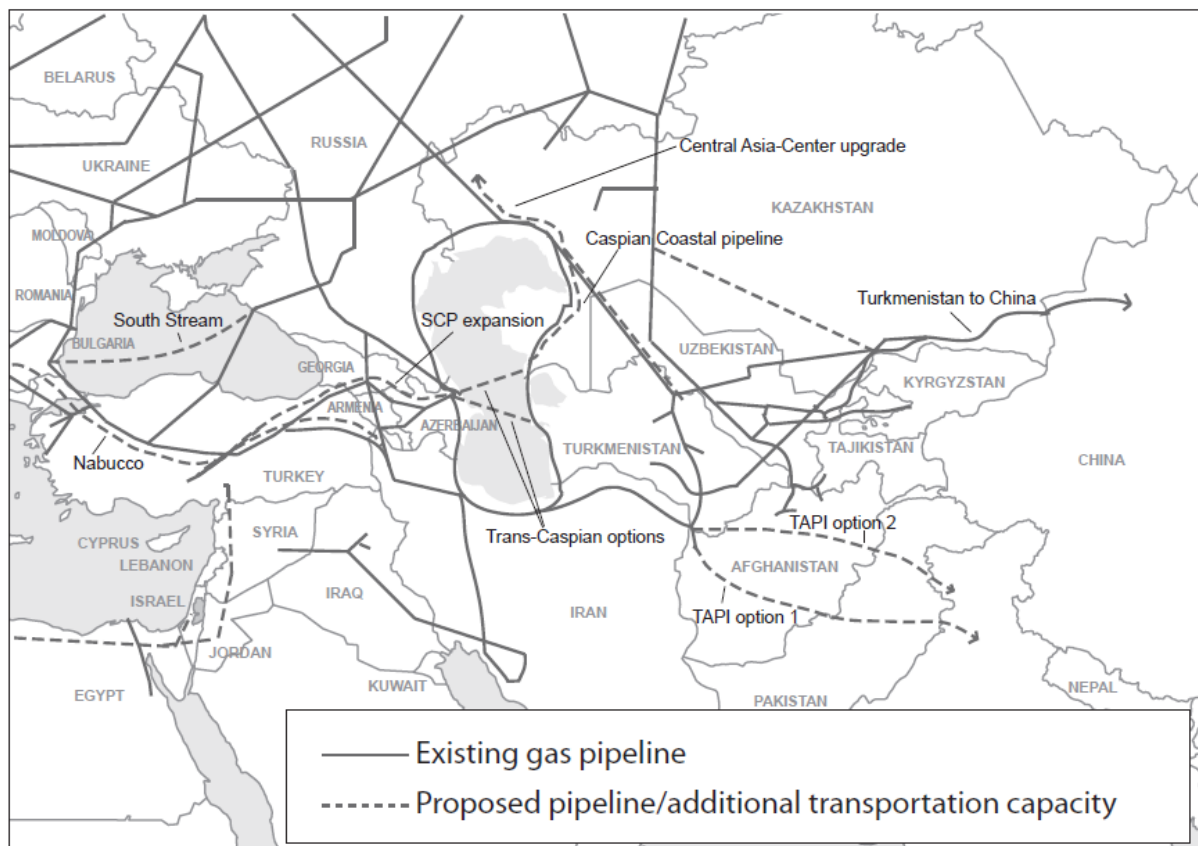
For what concerns the Rogun dam, one of the tactics adopted has been to actively stall the provision of construction material to the Rogun site. Since all of Tajikistan's rail imports has to pass through Uzbekistan, starting in 2010 Uzbek authorities have delayed thousands of rail carriages bound to Tajikistan that were crossing its border (Eurasianet, 2010b). Moreover, Tashkent has also significantly raised the customs duty for trucks and unilaterally closed the border several times in 2010 (Eurasia Daily Monitor, 2010; BBC Monitoring Central Asia Unit, 2010c). Border problems escalated towards the end of 2011, when a mysterious explosion damaged a bridge in Uzbekistan, causing the interruption of one of the three major rail links to Tajikistan, the one between the Uzbek city of Termez and the Tajik city of Qurgonteppa (Radio Free Europe, 2011). Although the Uzbek newspaper Pravda Vostoka described the incident as a terrorist act, Tajikistan asked, in vain, for additional investigation. In addition, instead of fixing the track, Uzbekistan dismantled it, making the movement of trains to Tajikistan impossible (BBC Summary of World Broadcasts, 2012). It seems then, that the GoU is using time as a source of power. However, this is done in a less subtle way than the one outlined for instance by Marwa Daoudy in the Euphrates and Tigris basin, in which time was used as a form of bargaining power to influence negotiations (Daoudy, 2009). In this case, Uzbekistan is physically impeding the delivery of building materials, to actively stall and extend over time the construction process at the Rogun site.

6.5.1. Issue linkage

While Warner and Zeitoun (2006: 454) listed issue linkage as a counter-hegemonic strategy that can increase a country's bargaining power (as in the case of Syria gaining an advantage from the Kurdish human rights movement that were contesting the Ilisu dam in Turkey), it appears that in the case of Uzbekistan a point can be made for issue linkage as an hegemonic strategy and for the use of hard power as a source of bargaining power.

German scholar Ines Dombrowsky (2010) has analysed how issue linkage – which she defined as an exchange of concessions in fields of relative strength (Dombrowsky, 2010: 133) – can play a role in the resolution of transboundary water conflicts. However, matters related to the exchange of concessions in the use of natural resources in Central Asia, have been marked by a rather conflictual approach, and in the specific cases of the Rogun and Kambarata dams, issue linkage has been used for uncooperative ends. More specifically, the GoU has used its gas resources to gain leverage on both Tajikistan and Kyrgyzstan.

Figure 24: Natural gas pipelines in Central Asia. Source: Richard Jones, “The Politics of Central Asian and Caspian Energy” (presentation at Chatham House, London, February 23–24, 2010).



Since Uzbekistan is Tajikistan's sole supplier of natural gas (see Figure 24), the country has used this strategical advantage as a form of retaliation against Tajik plans. Although gas cuts had happened before as a consequence of Dushanbe's failure to pay for outstanding debts (BBC Monitoring Central Asia Unit, 2009n), other analogous episodes can be connected directly to the Rogun dispute. In 2010, in a new chapter of the epistolary dispute between the Uzbek Prime Minister Mirziyoyev and his Tajik counterpart Akilov, the latter sent an open letter to Mirziyoyev, which was promptly posted by the Tajik news agency Khovar. The message emphasized the country's sovereign right to build the dam to overcome its energy deficits, which could not be addressed by energy imports because of the artificial barriers created by Uzbekistan (Akilov, 2010). As a response, the GoU did not send another letter. Instead, a few hours after the reception of the communication, Uzbekistan unexpectedly halved gas supplies to Tajikistan, without specifying the reasons behind such decision (Agence France Press, 2010). Two years later another exchange of letters took place, touching on issues such as Rogun, the interruption of rail traffic between the two countries and Uzbekistan's decision to withdraw from the Central Asian power grid (Avesta, 2012). Also in this occasion, Uzbekistan interrupted all gas supplies to Tajikistan, explaining that there was a supply contract with China that needed to be fulfilled. Moreover, the Uzbek side did not concede the use of its territory to allow the transit of Turkmen gas to Tajikistan (The Times of Central Asia, 2012).

This is noteworthy, because by using hard (structural) power in the form of a gas cut, the Uzbek government has increased its bargaining power, placing the Tajik government in a testing situation. Besides the implications that this move might have on gas supplies to the Tajik population, this considerably impacts on the Tajik industrial sector. The Tajik Aluminium Company (TALCO) is powered with Uzbek gas, and so is the Tajikcement plant, the largest cement producer of Tajikistan that is of central importance for cement provisions to the Rogun site.

Likewise, the Uzbek government has used hard power to gain leverage on Kyrgyzstan and show its disapproval. Beyond the frequent gas cuts caused by behind-time payments from Bishkek, in 2009 Uzbek authorities decided to strengthen security on the Kyrgyz-Uzbek border by digging ditches in the Suzak, Aksy and No'okat regions of Kyrgyzstan and erecting walls in the Rishtan rayon of Uzbekistan, some analysts interpreted this

measure as a sign of dissatisfaction towards Kyrgyz hydropower ambitions (Akhmadov, 2009). Once more, when in 2010 Uzbekistan unilaterally closed the Kara-Suu-Avtodorozhnyy customs checkpoint, some Kyrgyz human rights activists connected this move with the construction of the Kambarata dam (BBC Monitoring Central Asia Unit, 2010e).

6.6. Resource capture

According to Thomas Homer-Dixon, resource capture occurs when “the degradation and depletion of a renewable resource interacts with population growth to encourage powerful groups within a society to shift resource distribution in their favour. These groups tighten their grip on the increasingly scarce resource and use this control to boost their wealth and power” (Homer-Dixon, 1999: 177). This seems to connect with Wittfogel’s seminal study *Oriental Despotism* (1957), that first introduced the concepts of hydraulic society and hydraulic despotism. Wittfogel argued that those who control water in arid or semi-arid regions also control political power. The so-called “hydraulic regimes” might increase their grip on power by building and managing hydraulic infrastructures such as dams and network of canals, which would allow bureaucrats to exert control over people and rivers. More recently, other scholars (Worster, 1985; Reisner, 1993; Swyngedouw, 1999) have investigated how ruling political elites can increase their influence and preserve social control through large hydraulic projects, in the so-called “hydraulic mission” to control nature and conquer the desert.

Resource capture can be the end in itself, but it can also be the means to an end, with the end being consolidated control of water resources. The construction of large hydraulic infrastructures such as Rogun and Kambarata (whose realization is often so symbolic that it becomes the end in itself), offers a good example of how resource capture is associated to the water/power nexus. Nevertheless, Tajikistan and Kyrgyzstan are not the only basin riparians occupied in capturing water resources, since also Turkmenistan and Uzbekistan have adopted a similar strategy. The latter, in particular, has built a number of reservoirs using winter releases of water from the Toktogul Reservoir with the plan of using it for irrigation in summer, becoming less dependent on Kyrgyzstan’s water (Wegerich, 2008). Among them, there are the Rezak Reservoir in Namangan Region, and the Karaman

Reservoir in Jizak Region. While these infrastructures alleviate Uzbekistan's problems in low-water years, they are not sufficiently large to achieve Uzbek self-sufficiency in irrigation water (Abbink et al., 2010). Moreover, as Kemelova and Zhalkubaev noted, Uzbekistan built these reservoirs without notifying or consulting with Kyrgyzstan, the country whose interests could be potentially harmed by such initiative, thus violating international water law (Kemelova and Zhalkubaev, 2003). It appears then that the Uzbek government – that extensively recurs to international water law when its interests have to be safeguarded – has a one-way (if not contradictory) understanding of the matter, since it does not respect the same principles for which it advocates.

6.7. Conclusions

While Tajikistan and Kyrgyzstan resorted to the sole use of bargaining and ideational power to accomplish their hydraulic mission, Uzbekistan acted similarly but with the opposite objective, and in addition did not disdain the use of hard power. Dinar (2009) noted how the use of violence in hydropolitics is too costly and often counter-productive. Nevertheless, hard power does not refer to the mere use of violence, but more in general to the structural capacity of influencing the other's behaviours in less subtle (and more easily observable) ways than by using ideational or discursive means. And this appears to be the tactic sometimes used by the Uzbek government, which instead of recurring to the use of violence, preferred to take advantage from its upstream position in the gas distribution system.

Besides causing the gradual deterioration of relations between the upstream block and Uzbekistan, the ways in which Tajikistan and Kyrgyzstan have challenged and contested the status-quo have caused the direct and peremptory reaction of the Uzbek leadership, which employed a wide array of tactics to discredit both projects. The key to understand the nature of this conflict seems to be symbolic value that has been attached to the two dams and to their construction. If, on the one hand, Tajik Prime Minister Akil Akilov underlined how Uzbek criticisms to Rogun have no other effect than uniting the people of Tajikistan in the idea that the dam should be built, on the other hand, impeding the construction of both dams has become a matter of principles for the Uzbek government. The dams come to symbolize the right of self-determination of the upstream countries but also the right of

self-defence of Uzbekistan, at least according to how the three countries have portrayed the matter. Perceptions and images play a crucial role in international politics, in the same way that symbolism is of central importance in Central Asian politics, both at the internal and at the regional level. Avoiding a threat (whether a real or a presumed one) assumes a value since what is visible is equally important as what is invisible, or what is real has the same value of what is only presented as real. And thus, impeding the construction of the two dams becomes as important as their construction, since both actions are not anymore the means to an end, but the end in itself.

Chapter 7. Conclusions

The most hateful grief of all human grieves is this, to have knowledge of the truth but no power over the event.

Herodotus, *The History - Book IX*, 440 B.C.

This thesis was set out to understand and explore how state power is wielded in transboundary water relations in Central Asia, and what hegemonic and counter-hegemonic tactics Kyrgyzstan, Tajikistan and Uzbekistan have put in place to favour and obstruct the construction of two large hydroelectric dams, Rogun and Kambarata. This final chapter assesses and compares the two case studies and their impact on regional water relations. Subsequently, the findings of this study are presented, along with its contributions to knowledge and its limitations. Finally, areas for future research are identified and outlined.

7.1. The two case studies compared

As it was explained in the introduction, the two case studies are in many ways similar. Yet, as it emerged from the analysis carried out in the previous chapters, there are also some significant differences that can now be illustrated.

At the technical level, the flow of the Syr Darya river is at present more regulated than that of the Amu Darya river, and therefore the Kambarata dam would have, in absolute terms, a less significant impact than the Rogun dam on the water flow. The Kyrgyz government is already in the position to use water as a bargaining tool (and it already did, as discussed in Chapter 3), while the Tajik government expressly needs a large dam like Rogun before being able to do so. This notwithstanding, the impact of the Kambarata dam should not be underestimated, as its construction would set a precedent on regional water issues, implying that Uzbekistan and the principle of absolute integrity of the river for which the country advocates were overpowered by the principle of absolute territorial sovereignty claimed by upstream countries.

The two dams have also had a different political significance for the governments of Tajikistan and Kyrgyzstan, one that appears to be greater for the former than for the latter. Indeed, the Tajik government has placed the Rogun dam at the centre of a specific ideological production aimed at portraying the dam as a symbol of patriotism, national unity and progress, to the point that Tajikistan presents itself to the international community as a “water country”. While a similar dam-rhetoric was also propagated within Kyrgyzstan, the intensity with which the Kyrgyz government carried out its Kambarata campaign is considerably lesser than that observed in Tajikistan. For instance, considering the IPO launched in Tajikistan in 2010 in which the Tajik citizens were forced by the government to buy Rogun shares, it seems difficult to imagine a similar development in Kyrgyzstan. This is both because of the more vibrant contestational politics that characterise the Kyrgyz setting if compared with the Tajik one, and also because of the political instability that marked Kyrgyzstan over the last decade. Furthermore, the long-standing rivalry between Tajikistan and Uzbekistan led the Tajik government to interpret and portray the construction of the Rogun dam against the will of Tashkent as a symbol of internal cohesion, that serves to assert the country’s sovereignty over its natural resources. While also the Kyrgyz leadership, and particularly Bakiev, represented the dam as an expression of the God-given right of the Kyrgyz people to use their water as they wish, the tones (and the nature of the conflict with Uzbekistan) were never as exasperated as in the case of the Rogun dam.

Likewise, the Uzbek attitude towards the two dams was similar and different at the same time. It was similar in the sense that the Uzbek government treated the Rogun and Kambarata dams as a virtually unique entity, linking them together at regional and international roundtables, presenting and perceiving them both as a direct threat to its wellbeing. It was different in the sense that the Rogun dam seems to be the one that worried the most Karimov and his entourage. Specific and more peremptory actions were taken to oppose its construction, and the Uzbek government constantly retorted each and every point made by the Tajik government.

Overall, the three countries have been (and still are) engaged in a tense conflict, in which each of them used its power to assert its interests and get the desired outcome to maintain

or contest hegemony. The following paragraph returns to the research questions and answers them presenting the findings of this study.

7.2. The research questions unwrapped

This thesis has taken a critical hydropolitical approach (i.e. one that studies water relations taking into consideration aspects such as overt and covert forms of power, discursive processes and social constructions) to analyse interstate relations in the Aral Sea basin in Central Asia, and to examine how state power is wielded in transboundary water relations. Two sub-questions have helped addressing this main research question. The first one, investigating how water relations evolved in the period 1991-2011, was addressed in Chapter 3.

This has outlined how the resource distribution system set by the USSR left a heavy legacy on the Central Asian republics. The incompatibility between water demands of irrigation and hydropower is at the origin of a growing frustration among the upstream and the downstream countries. Over the last two decades, this fundamental conflict has strongly influenced water relations, that have taken a downward trend marked by three different and evolving phases. During the first “buffer period” (1991-1996), the new-born (and disoriented) republics decided to preserve the Soviet water allocation, and unconvincingly attempted to have a multilateral approach to regional water issues signing several multilateral agreements on water sharing. A more individualist and cautious attitude towards the management of shared water resources emerged in the period 1997-2006, that was marked by the first severe regional energy crisis (1997) and by the adoption of numerous bilateral and trilateral short-term agreements (AOAs) that were often signed as a response to an on-going crisis and not to prevent its occurrence. Subsequently, the revitalisation of the Rogun and Kambarata dams corresponded to the beginning of the third phase of water relations (2007-2011), characterised by the open and manifest conflict between Uzbekistan – the leading dam-opponent among the downstream states – and the two upstream republics, Tajikistan and Kyrgyzstan. The two dam projects led to the gradual deterioration of bilateral relations between Tajikistan and Uzbekistan, and Kyrgyzstan and Uzbekistan, as it was illustrated by the TWINS matrix.

This served as a link to Chapter 4, 5, and 6, that helped answering the second sub-question, identifying and categorising which counter-hegemonic and hegemonic measures have been put in place to favour and obstruct the construction of the Rogun and Kambarata dams. With the due differences (outlined in paragraph 7.1), the analysis showed that the Tajik and the Kyrgyz governments adopted similar tactics to contest the Uzbek hegemony and change a disadvantageous status-quo. They both resorted to i) internal support; ii) mobilization of financial resources; iii) international support; and iv) knowledge construction, to impose a particular discourse and ideology and wield their soft (ideational and bargaining) power. Counter-hegemony appeared as a constant and evolving process – with varying intensities and dimensions – aimed at changing the status-quo. Since the concept of “half-hegemony” does not seem to be theoretically plausible, counter-hegemony can exist and be observed even when it is not (yet) successful, as in the case of Kyrgyzstan and Tajikistan.

Conversely, the Uzbek government adopted a series of hegemonic tactics – i) international support; ii) knowledge construction; iii) recourse to international law; iv) active stalling/issue linkage; and v) resource capture – to maintain hegemony, rather than countering it. The dominant position in which the hegemon finds itself broadens the scope and range of opportunities that it can use to reassert and consolidate its interests while wearing down those of the hegemonised. Thus, Uzbekistan used its hard and soft power to respectively coerce and persuade other actors and get the desired outcome. Yet, hard power never implied the use of violence (although this was sometimes used as a threat), even when tension was at a peak, but rather the recourse to other “structural” measures such as the construction of water reservoirs or actively stalling the provision of construction materials. On the other hand, Kyrgyzstan and Tajikistan only resorted to the use of soft power, although in their case this can be interpreted as a prerequisite to use hard power: the moment in which they will get consent and persuade the other actors of the validity of their reasons, they will be able to build the Kambarata and Rogun dams and capitalize on their upstream position. Soft power in this case sets the conditions to use structural power, confirming the reciprocal relationship between material capabilities and ideas, and emphasizing the intimate connection between material and soft power at the basis of the concept of hegemony.

And indeed, over the course of this research the concept of hegemony and its two related facets – that refer to how hegemony can be maintained and contested – emerged as central to the study of power. Social and discursive constructions and the constant attempt to impose a certain worldview appeared to be a recurring element in the analysis of water politics in Central Asia, where water has both symbolic value and material worth. Moreover, the absence of a binding legal framework and the ambiguity that this might entail, seems to have further strengthened the confrontational attitude aimed at imposing its own view of things rather than adapting to that of the others.

Among the three forms of power, the ideational one seems to be the most significant to both maintain and contest hegemony. Going back to Gramsci's (1975 and 1975a) idea of an "intellectual" hegemony, and more in general to the power theory review carried out in Chapter 2, the ability to impose ideas and influence those of the others is considered an efficacious instrument to affirm hegemony and create expectations and behaviours. However, while on the one hand the political setting described by Gramsci presented the figure of a lay Pope, Benedetto Croce, that acted as a key instrument of hegemony, on the other hand, Central Asian water politics do not seem to be influenced by a singular actor but rather by a multiplicity of fragmented realities, or as Chantal Mouffe would have defined them, nodal points of power (Mouffe, 2008). This is perhaps the reason behind the strong influence that the Soviet Union and its policies still have on water management issues in Central Asia. Uzbekistan's water hegemony is primarily a result of the decisions taken in the Soviet period, and of the succeeding ability of the Uzbek government to maintain the status-quo unchanged. This does not diminish, however, the intensity of the counter-hegemonic struggle that has taken place to disarticulate the current hegemonic order.

7.3. Main contributions, limitations of the study and areas for future research

This thesis contributes to existing knowledge at several levels. It does so by being the first study to carry out a comprehensive analysis of power dynamics in transboundary water relations in Central Asia placing the focus on the issue of large dams. Thus, this research provides an original contribution to the literature on hydro-politics in Central Asia, offering fresh theoretical interpretations to the subjects of power and counter-hegemony in the Aral

Sea basin. Furthermore, the interdisciplinary approach used in this dissertation – that takes and connects insights from critical IR theory, conventional political geography and Central Asian studies – has been rarely used to analyse water politics in the Aral Sea basin.

The categorisation and detailed illustration of the counter-hegemonic tactics deployed by the Tajik and the Kyrgyz governments adds a contribution to the critical hydro-politics literature focusing on power dynamics in Central Asia but also at a more general level. Similarly, the categorisation of the hegemonic tactics adopted by the Uzbek government provides an additional contribution to the study of how power is used to maintain hegemony in an international river basin. Also, as it emerged in the previous paragraph, the present study confirms previous findings and contributes additional evidence that suggests that states tend to avoid the use of violence to solve transboundary water conflicts. Indeed, while conflict and cooperation coexisted in the Aral Sea basin in the period under analysis – and cooperation proved to be fundamentally ineffective – the use of violence and the possibility for a “water-war” to erupt remained a remote option.

Conceptually, this study developed an analytical model that connected the concepts of power and hegemony and revisited the analytical framework of hydro-hegemony, proposing a redesign of its structure named the “circle of hydro-hegemony”. Hegemony is placed at the centre of this analytical structure, while the various forms of power are taken as an interconnected entity that is connective in the function of hydro-hegemony. Such analytical contribution can prompt constructive discussion about the relationship and interconnections between the notions of power and hegemony in hydro-politics.

In addition, the empirical material collected during this research led to the creation of three timelines (Annex 2, 3, and 4), that represent the largest recollection of events of this kind available at the time of writing, and the possible uses for these data are vast. The timeline of water relations in the period 1991-2011 could for instance be used by researchers comparing water interactions in a number of international river basins, or by those specifically studying water politics in Central Asia. Likewise, the timelines of the Rogun and Kambarata dams could offer useful information for those studying the politics and rhetoric of large dams and, more specifically, to those interested in these two projects.

Concerning the data collection, a number of important limitations need to be considered. First, although the data collection was carried out as scrupulously and thoroughly as

possible (see Annex 1), it may occur that some events are not included in the timelines. This is because the timelines are based on news reports, official declaration and official documents. Rumours and unsubstantiated events, and more in general, matters that were not reported by the “official” information channels, were not included in the timelines.

A second limitation is due to the fact that events happening after the year 2011 were deliberately left out of the timelines. While this was done to keep the scope of the research within a controllable time span, this time limit does not allow to study recent and relevant developments concerning water relations in Central Asia and the construction of the Rogun and Kamarata dams.

Thirdly, this research did not entail any fieldwork. This is due to two connected reasons. The first, is that prior to this study the author spent one year (2009) working on high-level water politics in Central Asia for the UNRCCA based in Ashgabat, Turkmenistan. While none of the confidential information accessed during this experience was disclosed nor used in any way in this thesis, this privileged position allowed the researcher to gain a first-hand understanding of water politics in Central Asia and of how much certain issues can be politicised and kept in the inaccessible cabinet rooms of the government¹²⁴. Secondly and consequently, since this research analysed social constructions and official government representations of water issues, the prospect of doing fieldwork in Central Asia (and for instance interviewing government representatives) did not seem to add any value to the data collection, as the outcome would have most likely been very similar to the official stance that the Central Asian governments take through official declarations, statements and national state-owned media channels that tend to function as the mouthpiece of the government.

Finally, it is suggested that further research be undertaken in the following areas. First, and this comes from one of the limitations of this study, further research might explore recent developments concerning the construction of the Rogun and the Kamarata dams, (such as the release of the long delayed WB assessment report on the Rogun dam).

Second, although this is not yet feasible, when a regime change (or a succession) takes place in Uzbekistan and in Tajikistan it would be interesting to see what position the new

¹²⁴ As Allan and Mirumachi have noted (2010: 14), “[p]oliticized and securitized relations over transboundary water disappear first into ministries of foreign affairs and then into what has become known as the shadow state”.

leaderships will take towards regional water management, also considering how much the 2010 government change has impacted on the Kambarata dam in Kyrgyzstan. For instance, will the new Uzbek President attempt to harshen the tones of the conflict to assert his power and get legitimation? Or will he/she be more accommodating than his/her predecessor? And also, will the Rogun dam be the pet project of the next Tajik President or will he/she instead attempt to gain energy self-sufficiency for his country with other, less symbolic projects?

Third, considering that both the Tajik and the Kyrgyz governments have framed their dam projects as symbols of patriotism, and also considering that little has been written on the correlation between the control of water resources and the nation-building process, further research could explore how ruling political elites use iconic projects such as large dams to create a sense of national identity, gain legitimacy and boost their popularity. The necessity of expanding on this area, and to link it with the study transboundary water relations seems even more relevant, it is argued, considering that after a decline in the number of dams being erected worldwide from the 1970s onwards, dams are now back on the global agenda, and hundreds of new, controversial projects have been launched in the last few years.

Fourth, it would be interesting to compare counter-hegemonic tactics in a number of international river basins, to explore which forms of power are used by different riparians and why. This might apply to the issue of large dams but also to any other activity aimed at countering an existing hegemonic order. For what concerns Kyrgyzstan and Tajikistan, both countries adopted, in different ways, the same four counter-hegemonic tactics. Will these be the same in another international river basin?

Fifth, although this goes beyond the field of hydropolitics and enters that of political science, a comparative study could investigate the rhetoric of justification used by various governments when it comes to the construction of architectural “white elephants”. Countries that have apparently no much in common, might indeed use very similar discourses aimed at portraying a certain infrastructure as the panacea. For instance, this could be the case of Italy and Tajikistan for what concerns the Strait of Messina bridge project and the Rogun dam. The results of such a study could be, depending on the point of view, surprising or predictable. After all, although more than two millennia have passed since Plato wrote the Republic, the distinction between reality and appearance in politics

and the way realities are constructed by politicians appear to be a topical issue also in the contemporary world.

Annex 1. Methodology

1. Research process

This research started in February 2011 and lasted for three years. Overall, the research process can be divided into five major steps: i) problem definition; ii) research design; iii) literature review; iv) data collection; v) analysis and writing. While some of them overlapped, the different stages of the research generally followed one another, as illustrated in Figure 25.

Month Activity	YEAR 1	YEAR 2	YEAR 3
Problem definition	■		
Research design	■		
Literature review	■	■	
Data collection		■	■
Analysis and writing			■

Figure 25: Timeframe of the research

Discussions with numerous scholars have helped in gradually narrowing the scope of the research, eventually leading to the choice of the two case studies. The attendance of two summers schools¹²⁵ and numerous conferences and workshops allowed me to present my research and to receive precious feedback. In addition, the two terms that I have spent at the Department of Geography of King's College London (Sept.-Dec. 2012) and at the School of International Relations of the University of St Andrews (Jan.-Mar. 2013), gave me the opportunity to receive advices from leading scholars and to access relevant bibliographic resources.

¹²⁵ In July 2011 I participated to the 14th Erasmus IP European Seminar on Geography of Water in Cagliari, while in July 2012 I attended the EAERE-FEEM-VIU European Summer School on Management of International Water hosted by Prof. Ariel Dinar in Venice.

2. Creation of three chronologies

A central element in the operationalization of this study was the creation of three detailed chronologies (one for general interstate relations and one each for Rogun and Kambarata) of relevant speech acts representative of cooperative and conflictive interactions. The collection of chronological events emphasizes one of the major strengths of case studies, namely that case studies allow to trace events over time, to subsequently analyse them (Yin, 2009: 148). The initial analysis of existing databases on water conflicts and agreements, such as the Transboundary Freshwater Dispute Database (TFDD) of the Oregon State University, the IRCC of the ETH-Zurich and the Water Conflict Chronology of the Pacific Institute, revealed lack of consistency, both when they were compared to each other or when crossed with other chronologies and reports of events found in published academic articles. For this reason, it became necessary to compile a new, detailed chronology, integrating the above mentioned sources with a systematic screening of relevant media reports operating in and on the region, both using their websites and the LexisNexis Research software.

Initially, I made a selection of relevant news sources from the region. The main sources that I used are: BBC Monitoring International Reports from Central and South Asia Units (that provides also transcription and translations of national TV and radio programs), Interfax News Agency, Agence France Press, RFE/RL, Interfax and the state-owned Central Asian media, that act as the mouthpiece of the government. Subsequently, these selected sources were the object of a systematic screening based on certain keywords that was done both taking the five countries (LexisNexis allows to isolate the countries of interest), both isolating country couples (as Tajikistan-Uzbekistan). In addition, and to get more results, I limited the timespan of each research to a period of 12 months. This was done because LexisNexis automatically filter the results when they are more than 1000 (which is often the case for period longer than a year), and thus this was the only way to avoid a possible loss of information. The process of data collection has taken around 14 months.

The events collected include press reports and interviews, official documents and declarations, letters and memoirs of key individuals. All these documents have the function of manifesting actions, such as promising or threatening (Klotz and Lynch, 2007: 19).

These primary sources are supplemented and contextualised through secondary sources, such as academic articles and reports from international organizations, and also by conducting semi-structured interviews with representatives of key international organizations working in the region and with prominent experts on Central Asian interstate relations¹²⁶.

Subsequently, all the information collected and retained was ordered into three chronologies (see the annexes for the full chronologies): a general one, and a specific timeline for Rogun and Kambarata. The general timeline consists of a total of 197 speech acts, which provide a detailed account of regional inter-state relations in the field of water. The two specific timelines are similar to the general one, the difference being that they focus only on Rogun and on Kambarata. Certain events are part of two or even three timelines, as they were relevant both the specific and in the general context (i.e., a conference where the five Presidents openly argued over Rogun and Kambarata and threatened to take certain actions is something that goes in the three timelines).

As mentioned, thanks to BBC Monitoring and its transcription and translation of national TV and radio programs, I had access to indigenous language sources overcoming my unfamiliarity with them. On the other hand, I do understand written Russian language sources¹²⁷, and I have therefore accessed them in their original form.

3. Speech acts

The three chronologies are made of speech acts. Speech act theory was originally developed by a philosopher of language, Austin (1975), in his seminal book *How to do things with words*. The main assumption behind speech act theory is that different uses of language, by their utterance, perform an action. If I say to a friend that “I will buy a house”, or “I do” during a marriage ceremony, I am promising that I will do something by just saying it. This is a *performative* utterance, one through which I am performing an act.

¹²⁶ It has to be noted that the objective of these interviews was mostly to further understand and assess the main challenges and tendencies for regional relations and to enrich the research with further details and elements. Interviews are normally being realized at the margins of international conferences on water management (such as the 2012 World Water Forum in Marseille, France) or during dedicated trips to IOs headquarters.

¹²⁷ When it comes to regional meetings and conferences, Russian is still the *lingua franca* in Central Asia. Furthermore, the Central Asian presidents and ministers generally use Russian to address international forums such as the UNGA or the OSCE Ministerial Council meetings.

Austin identified five categories of performative acts (1975: 151-2): *verdictives* (giving a verdict or an appraisal), *exercitives* (the exercising of powers, rights and influence), *commissives* (committing to do something by declaring or announcing it), *behabitives* (relating with social behaviours, e.g. apologizing, congratulating or cursing), and *expositive* (they put an utterance in a context, as in “I reply”, “I assume” or “I argue”). Further elaborating on this, Searle (1975) introduced the following categories of speech acts: *assertive*, *directive*, *commissive*, *expressive* and *declarations*.

Subsequently, Nicholas Onuf (1998) analysed speech acts from a constructivist point of view, considering them as acts that perform an action and establish a relationship when they encounter a response or a reaction from the audience towards which they were directed. Onuf (1998: 66) reduced the categories of speech acts to the following three: 1) *assertive*, through which something is asserted, as in “our country is experiencing a difficult situation”; 2) *directive*, through which something is demanded, as in “we need more water”; and 3) *commissive*, through which something is promised, as in “I will pay my debts”.

In this research, speech acts are studied within Onuf’s three categories, assertive, directive and committive, with the clarification that speech acts can be both verbal and nonverbal facts, as stated by Duffy and Frederking (2009) in their speech acts analysis of the end of the Cold War. A nonverbal speech act is a physical, concrete action that conveys a meaning, such as mobilizing troops at the border, which is an example of a directive speech act. In water relations, an assertive speech act can be for instance a public speech or an official statement through which sovereignty on water resources is stated. A directive speech act can be a cut in water resources to obtain, as in the case of relations between Kyrgyzstan and Uzbekistan, a resumption of gas supplies. Finally, a commissive speech act can be the signing of a treaty or a joint declaration, through which two countries express a commitment to engage in future actions.

4. Discourse analysis

The concept of discourse analysis does not refer to a specific method but rather to a research perspective (Keller, 2012: 3). More than a method, discourse analysis is a methodology that contains methods of data collection and analysis, combining them with a

set of assumptions on how language and social interactions construct realities (Muller, 2011). The focus of discourse analysis is on how specific identities, practices, meanings and knowledge are created by an actor in describing something in a way or in another (Rapley, 2008: 132). Being this a study on power and hegemony, it is important to focus on the capacity of one actor to impose or control a certain discourse, as the management of social representations can be associated with the control over the minds and perceptions of other people and thus to hegemony (Van Dijk, 1993: 257). Discourse analysis in this study is used in the analysis of speech acts, to ascertain whether they are assertive, directive or committive, connecting them with particular periods of water relations in the Aral Sea basin, and analysing the audience towards which they were addressed and the meaning that wanted to be conveyed.

The way discourse analysis is carried out is inspired by techniques developed in grounded theory. Grounded theory is a methodology for developing theory that is grounded in data gathered and analysed systematically (Strauss and Corbin, 1994: 273). In this methodology originally conceived by Glaser and Strauss (1967), theory may be generated directly from the data or, if other theories on the area of investigation already exist, theory may be further elaborated and modified using the data gathered. The former approach, applies to the study of counter-hegemonic strategies, which have not been theorised in detail and therefore theory will be generated directly from the data. The latter approach, on the other hand, will be used for hegemonic strategies. In this case, the data gathered will be confronted with the existing theorisation from Warner and Zeitoun (2006), confirming or further expanding the categorisation of hegemonic strategies. The data collected in the three timelines, is coded and categorised (and sub-categorised) looking for relationships, patterns of action and interaction (Strauss and Corbin, 1994: 278) between the various basin riparians. As Birks and Mills note, grounded theory is usually derived from data sources of a qualitative and interpretive nature (Birks and Mills, 2011: 6), as it is also the case for this research.

Annex 2. Water relations in Central Asia 1991-2011

Key

KG Kyrgyzstan **KZ** Kazakhstan **TJ** Tajikistan **TK** Turkmenistan **UZ** Uzbekistan

EXT Non-Central Asian actor **Y** Involved in the event

	KG	KZ	TJ	TK	UZ	EXT	DATE	DESCRIPTION OF THE EVENT	TYPE OF EVENT	SOURCE
1	Y	Y	Y	Y	Y		12/10/1991	Statement of heads of water economy organizations of Central Asian Republics and Kazakhstan adopted on 10-12 October 1991 meeting in Tashkent in which the countries recognized water as a limited resource that should be equally distributed among the republics.	Joint statement/declaration	Statement of heads of water economy organizations of Central Asian Republics and Kazakhstan adopted on 10-12 October 1991 meeting in Tashkent, 1991. Available from: http://www.icwc-aral.uz/statute2.htm [Accessed 10 Feb 2012]
2	Y	Y	Y	Y	Y		18/02/1992	Agreement on Cooperation in the Area of Joint Management, Utilization and Protection of Interstate Water Resources (also known as the "Almaty Agreement).	Agreement	Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan and the Republic of Uzbekistan on co-operation in interstate sources' water resources use and protection common management, 1992. Available from: http://www.icwc-aral.uz/statute1.htm [Accessed 10 Feb 2012]
3	Y	Y	Y	Y	Y		26/03/1993	Agreement between Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan, and Republic of Uzbekistan on joint activities in addressing the Aral Sea and the zone around the Sea crisis, improving the environment, and enduring the social and economic development of the Aral Sea region (Kzil Orda Agreement).	Agreement	Agreement between Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan, and Republic of Uzbekistan on joint activities in addressing the Aral Sea and the zone around

										the Sea crisis, improving the environment, and enduring the social and economic development of the Aral Sea region, 1993. Available from: http://www.icwc-aral.uz/statute13.htm [Accessed 10 Feb 2012]
4	Y	Y	Y	Y	Y		15/01/1994	Adoption of "The Program of Specific Measures to Improve the Ecological, Social and Economic Situation in the Aral Sea Basin for 3-5 Years" and of the "The Basic Provisions of the Concept " (now known as the Aral Sea Basin Program).	Adoption of a joint program	BBC Summary of World Broadcasts, 1994. Central Asian summit agrees measures to save Aral Sea. 15 Jan.
5	Y				Y		01/01/1994	Informal barter agreement under which Uzbekistan agreed to provide Kyrgyzstan with winter heat and electricity in exchange for water during the summer growing season.	Annual operation agreement	RFE/RL, 1997. Kyrgyzstan/Uzbekistan: The Politics Of Water. RFE/RL [online], 9 Oct. Available from: http://www.rferl.org/content/article/1086795.html [Accessed 3 Feb. 2012].
6	Y	Y	Y	Y	Y		03/03/1995	Establishment of the Aral-Ekobank to raise funds to deal with the ecological disaster of the Aral Sea. This was established during a meeting in Ashgabat that established the Resolution of the Heads of States of the Central Asia on work of the EC of ICAS on implementation of Action Plan on improvement of ecological situation in the Aral Sea Basin for the 3-5 years to come with consideration of social and economic development of the region Parties: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan.	Establishment of a joint body	BBC Summary of World Broadcasts, 1995. Central Asian summit agrees measures to save Aral Sea. 7 Mar.
7			Y		Y		31/05/1995	Uzbekistan is to stop taking electricity from Tajikistan in a step which the Tajik energy authorities see as a violation of an agreement between the two republics, the Moscow daily 'Pravda' reported on 31st May. The head of the Tajik power grid was quoted as describing the Uzbek move as "impolite, to say the very least" . He said that changes to the annual electricity transfer contract between the republics require the consent of both of them, "yet Tashkent did not even inform the	Agreement violation	BBC Summary of World Broadcasts, 1995. Uzbekistan reinterprets power supply deal with Tajikistan ('Pravda', Moscow, in Russian) 2 Jun.

							Tajik side of its decision" , 'Pravda' reported.		
8	Y	Y	Y	Y	Y	20/09/1995	Signing of the Nukus Declaration, that focuses on sustainable development of the Aral Sea Basin and on financial obligations of the states to ICAS and IFAS.	Joint statement/declaration	Ryabtsev, 2003. 10 Years of Regional Collaboration in Shared Water Resources Management of Central Asia. 3rd World Water Forum, Kyoto.
9				Y	Y	16/01/1996	Agreement between Turkmenistan and the republic of Uzbekistan on cooperation on questions of water management. This agreement stipulates that the Amu Darya's water be divided equally between Turkmenistan and Uzbekistan. Uzbekistan agreed to pay to Turkmenistan US \$11.4m. annually as land rent for the Buxoro and Qashqadaryo pump stations, as well as for the water storage area of the Tuyamuyun reservoir. In addition, Uzbekistan supplies water from the Qashqadaryo pump station to a 25,000-ha irrigated area of Turkmenistan free of charge. This was the first meeting between Karimov and Niyazov.	Agreement	Uzbek television, 1996. UzTV1, 16 Jan.
10	Y	Y			Y	01/04/1996	Agreement between the Government of Kazakhstan, the Government of Kyrgyzstan and the Government of Uzbekistan on management of water resources in Central Asia. It stipulated compensation for Kyrgyzstan for not fully utilizing its hydro-power potential during winter and allowed increased water releases during summer.	Agreement	The World Bank, 1997. Kazakhstan-Syrdarya Control and Northern Aral Sea Project. The World Bank Public Information Center.
11	Y	Y			Y	12/04/1996	"Water is a commodity," Kyrgyzstan's minister for water resources, Zhenishbek Bekbolotov, said. "Any natural resource that is used should be paid for." Despite the deal announced this week, Uzbekistan's acting minister for water resources, Abdurahim Zhalalov, rejected the notion that water had become a commodity in Central Asia.	Talks on water/energy	The Moscow Times, 1996. Kyrgyzstan Gets to Play Its Water Card. 12 Apr.

								"Nobody is trading water," he said. "The commodity is hydroelectricity." Kuposyn Kudaibergenov, deputy chairman of the Kazakh Water Committee, added that "In the Koran it is written that water should not be sold. We should solve the problems for each other as partners."		
12	Y				Y		25/12/1996	Agreement between the Government of the Republic of Uzbekistan and the Government of the Republic of Kyrgyzstan on the question of use water energy resources of Naryn Syr Darya's hydropower stations cascade in 1997.	Annual operation agreement	UNECE, 2003. Transboundary water cooperation in the newly independent states. Moscow-Geneva.
13	Y	Y	Y	Y	Y		28/02/1997	Almaty Declaration, adopted by the leaders of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. It declared 1998 as Environmental Protection Year in the central Asia region, acknowledged the need to develop a comprehensive programme of environmental security including the Aral problem and called on the UN to pay particular attention to the Aral sea crisis.	Joint statement/declaration	United Nations, 1997. A/52/112, 18 Mar. Available from: http://www.un.org/documents/ga/docs/52/plenary/a52-112.htm [Accessed 16 Feb. 2012].
14	Y	Y			Y		01/06/1997	Kyrgyzstan stated that it was planning to charge Kazakhstan and Uzbekistan for water.	Declaration/Speech	RFE/RL Newslines, 1997. Vol. 1, No. 53, 97-06-16.
15	Y	Y			Y		01/07/1997	Uzbekistan cut off 70 % of flow downstream, threatening 100,000 hectares and prompting a riot by Kazakh farmers. Moreover, it has deployed 130,000 troops on the Kyrgyz border to guard the reservoirs straddling the two countries.	Resource cut/Mobilisation of troops	Eurasianet.org, 2000. Central Asian states wrangle over water. Available from: http://www.eurasianet.org/departments/environment/articles/ea_v040500.shtml [Accessed 6 Mar. 2012].

16	Y	Y	Y		Y	19/07/1997	Local Representatives of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan met in the northern Tajik city of Khujand on 19-20 July to discuss water distribution. The Kazakhs and Uzbeks requested an increase in the volume of water flowing from the Kairakum reservoir in Tajikistan into the Syr River. Tajik representative Kosim Kosimov said such a decision can be made only by the Tajik central government. Kyrgyzstan has already announced it will begin charging its neighbors for water from the Naryn River; it has not yet decided on a price, however.	Talks on water/energy	RFE/RL Newslines, Vol. 1, No. 78, 97-07-22.
17		Y			Y	24/07/1997	Residents of Southern Kazakhstan Oblast staged a demonstration to protest a decision by the Uzbek government to cut the amount of water flowing from that country into Kazakhstan. The demonstrators said the Uzbek decision threatened the corn and cotton crops on some 100,000 hectares of land in the oblast.	Resource cut/Protests	RFE/RL Newslines, Vol. 1, No. 82, 97-07-28.
18	Y	Y	Y	Y	Y	26/09/1997	All five Central Asian republics agreed on the need for a common strategy in using the region's water for power generation, irrigation and other purposes. They decided to create a special consortium for this purpose. The meeting also agreed to install special equipment in the main rivers of the region in order to monitor the flow of water into the Aral Sea. The Central Asian states merged ICAS and IFAS into a new IFAS under rotating chairmanship of the Presidents of Central Asian states.	Agreement	BBC Summary of World Broadcasts, 1997. Central Asian states seek common strategy for water resources (Interfax news agency) 3 Oct.
19	Y				Y	01/10/1997	President Askar Akaev signed an edict codifying Kyrgyzstan's right to profit from water resources within its territories. Kyrgyzstan has demonstrated a clear intent to follow through on its plans. It has threatened to sell water to China if Uzbekistan refuses to pay. It has also demanded compensation for revenues lost from releasing water downstream to Uzbek farms instead of using it to generate hydroelectric power.	Adoption of legal instruments	Eurasianet.org, 2000. Central Asian states wrangle over water. Available from: http://www.eurasianet.org/departments/environment/articles/ea040500.shtml [Accessed 6 Mar. 2012].
20	Y	Y		Y	Y	16/10/1997	Kyrgyz Foreign Minister Imanaliyev's 2-day official	Talks on	BBC Summary of World

							visit to Tajikistan ended by an exchange of ratification instruments for a treaty on the basic principles of mutual relations between the countries. Speaking at press conference Thursday, he said Kyrgyz leadership was extremely interested that Tajikistan should become participant in implementation of projects within framework of Central Asian Union. Specifically, this concerned the decision of Kyrgyzstan, Kazakhstan, and Uzbekistan to establish transnational consortiums in 7 directions, Imanaliyev explained, noting that Tajikistan was interested in such spheres as water resources and power engineering.	water/energy	Broadcasts, 1997. President Rahmonov discusses cooperation with Kyrgyz foreign minister (Tajik Radio first programme, Dushanbe, in Tajik) 18 Oct.
21	Y	Y				27/12/1997	Kazakhstan and Kyrgyzstan friday reached a "coal for water" agreement, ending their three-year-long row over the issue, the itar-tass news agency reported saturday. Under this accord, Kyrgyzstan will provide irrigation water to Kazakhstan in the spring of 1998. Kazakhstan will pay back with 600,000 tons of coal and partially pay for the utilization of irrigation works in Kyrgyzstan.	Annual operation agreement	BBC Summary of World Broadcasts, 1997. Kazakhstan and Kyrgyzstan sign water for coal deal (ITAR-TASS news agency (World Service), Moscow, in Russian) 30 Dec.
22	Y	Y				01/01/1998	Kyrgyzstan has threatened to cut off water and electricity supplies to Kazakhstan unless previous deliveries are paid for.	Threatening/Warning	BBC Summary of World Broadcasts, 1998. Kyrgyzstan unhappy with Kazakh water and electricity debts (ITAR-TASS news agency (World Service), Moscow, in Russian) 2 Jan.
23	Y	Y	Y	Y	Y	05/01/1998	The presidents of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan met behind closed doors in Ashgabat on 5-6 January. On the agenda were regional cooperation, gas and oil pipelines, and the situation of the Aral Sea.	Talks on water/energy	RFE/RL Newline, Vol. 1, No. 189, 98-01-06.

24			Y		Y	04/02/1998	Agreement Between the Government of the Republic of Tajikistan and the Government of the Republic of Uzbekistan on Cooperation in the Area of Rational Water and Energy Uses. The documents included an intergovernmental agreement on cooperation in the use of water and energy resources, agreements on legal aid, cooperation and mutual assistance between the two countries' security services and interior ministries, cooperation to combat crime, transport and on cooperation in the struggle against drug trafficking. An intergovernmental agreement on restructuring Tajikistan's debt to Uzbekistan was also among the documents signed.	Annual operation agreement	Agreement Between the Government of the Republic of Tajikistan and the Government of the Republic of Uzbekistan on Cooperation in the Area of Rational Water and Energy Uses. Available from: http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/Kayrakum-98.pdf [Accessed 7 Mar. 2012]
25	Y	Y			Y	17/03/1998	Agreement between the Government of the Republic of Kazakhstan, the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on Joint and Complex Use Water and Energy Resources of the Naryn Syr Darya Cascade Reservoirs in 1998.	Annual operation agreement	Agreement Between the Government of the Republic of Kazakhstan, the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on Joint and Complex Use Water and Energy Resources of the Naryn Syr Darya Cascade Reservoirs in 1998. Available from: http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/Annual-Operation-98.pdf [Accessed 7 Mar. 2012].
26	Y				Y	01/08/1998	Uzbekistan cut off supplies to Kyrgyzsatn on 1 August because of unpaid bills.	Resource cut	RFE/RL Newslite, Vol. 2, No. 148, 98-08-05.

27	Y				Y		04/08/1998	Gas supplies from neighboring Uzbekistan have been restored. The Kyrgyz government has paid \$900,000 of the debt and sent a letter to the Uzbek authorities guaranteeing future payments.	Resumption of resource supply	RFE/RL Newswire, Vol. 2, No. 148, 98-08-05
28				Y	Y		16/10/1998	Talks between Turkmen and Uzbek presidents concerning regional security, including the use of the Amu Darya.	Talks on water/energy	Associated Press Worldstream, 1998. Turkmen, Uzbek presidents discuss Afghanistan. 16 Oct.
29			Y	Y			03/03/1999	Turkmenistan Foreign Minister Shikhmuradov pointed out that attention during his meetings with Tajikistan President Rakhmanov and Foreign Minister Nazarov was devoted mainly to the development of substantive dialogue on all matters concerning bilateral relations, including the problems of the Aral Sea. Upon having pointed out that Tajikistan, as a country with huge water resources, plays an important role in the resolution of the problem. Shikhmuradov said message from the President of Turkmenistan to Rakhmanov have been delivered, inviting him to attend the Ashgabat summit on the Aral Sea. Shikhmuradov declared in favor of intensifying cooperation between the countries in power development, specifically under comprehensive programs of the Organization for Economic Cooperation.	Talks on water/energy	BBC Summary of World Broadcasts, 1998. Tajik Turkmen leader concur on regional security issues. (ITAR-TASS news agency) 3 Mar.
30	Y	Y	Y	Y	Y		09/04/1999	Agreement between the government of Republic of Kazakhstan, the Government of the Kyrgyz Republic, the Government of Republic of Tajikistan, the Government of Turkmenistan and the	Agreement	Interstate Commission for Water Coordination of Central Asia. Available from: http://www.icwc-

								Government of Republic of Uzbekistan about the status of the international fund for saving the Aral sea (IFAS) and its organizations.		aral.uz/statute3.htm [Accessed 6 May 2012]
31	Y	Y	Y	Y	Y		09/04/1999	Adoption of the April 1999 Ashgabat Declaration, that calls for joint actions to address shared environmental problems in the Aral Sea basin.	Joint statement/declaration	Interstate Commission for Water Coordination of Central Asia.
32			Y		Y		13/04/1999	Agreement Between the Government of the Republic of Uzbekistan and the Government of the Republic of Tajikistan on Cooperation in the Area of Rational Water and Energy Uses in 1999	Annual operation agreement	Agreement Between the Government of the Republic of Uzbekistan and the Government of the Republic of Tajikistan on Cooperation in the Area of Rational Water and Energy Uses in 1999. Available from: http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/Kayrakum-99.pdf [Accessed 8 Jun. 2012].
33	Y	Y	Y		Y		07/05/1999	Protocol on Inserting Amendments and Addenda in the Agreement Between the Governments of the Republic of Kazakhstan, the Kyrgyz Republic, and the Republic of Uzbekistan on the Use of Water and Energy Resources of the Syr Darya Basin, of 17 March 1998. It adds Tajikistan to the 17/03/1998 agreement.	Agreement	Protocol on Inserting Amendments and Addenda in the Agreement Between the Governments of the Republic of Kazakhstan, the Kyrgyz Republic, and the Republic of Uzbekistan on the Use of Water and Energy Resources of the Syr Darya Basin, of 17 March 1998 Available from: http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/SyrDaryaAmm-Jun-99.pdf [Accessed 15 May 2012].
34	Y	Y					17/05/1999	Water supply to the Jambyl and Chimkent regions of neighboring Kazakhstan from the Kara-Bura reservoir in Kyrgyzstan was halted. According to Silaev, the governments of Kyrgyzstan and Kazakhstan agreed last year that Kazakhstan would supply Kyrgyzstan with 560,00 metric tons of coal in 1999 in return for water from the Kara-Bura reservoir, but Kazakhstan has not sent any coal to Kyrgyzstan so far this year. Nor has the Kazakh	Resource cut	RFE/RL Newslines, Vol. 3, No. 101, 99-05-25.

							leadership informed Kyrgyzstan when those deliveries will be made. According to Pannier, in this case Kyrgyzstan for the first time used water as a political tool. It demanded compensation for maintaining the reservoirs on the Syr-Darya. Kazakhstan, for example, was asked for shipments of coal to keep northern Kyrgyzstan warm and productive in the winter. When Kazakhstan did not ship the coal, Kyrgyzstan closed off the reservoirs that release water to Kazakhstan. The pressure worked; the bill was paid. (Pannier 2000)		
35	Y	Y				18/05/1998	Kazakhstan's Intergaz company on 18 May cut gas supplies to northern Kyrgyzstan. Toktosun Abduvaliev said his company owes Intergaz some \$2.2 million for supplies received in 1997-1998.	Resource cut	RFE/RL Newslines, Vol. 3, No. 97, 99-05-19.
36	Y	Y				22/05/1999	Northern regions of Kyrgyzstan began receiving gas from Kazakhstan on 22 May after the Kyrgyz government paid the first installment, worth \$25,000, of its \$2.2 million back debt to Kazakhstan's Intergaz company, RFE/RL's Bishkek bureau reported.	Resumption of resource supply	RFE/RL Newslines, Vol. 3, No. 99, 99-05-24.
37	Y	Y				22/05/1999	Agreement between the Government of the Republic of Kazakhstan and the Government of the Kyrgyz Republic on Comprehensive Use of Water and Energy Resources of the Naryn Syr Darya Cascade Reservoirs in 1999.	Annual operation agreement	Agreement Between the Government of the Republic of Kazakhstan and the Government of the Kyrgyz Republic on Comprehensive Use of Water and Energy Resources of the Naryn Syr

									Darya Cascade Reservoirs in 1999. Available from: http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/Annual-KzKg-99.pdf [Accessed 8 Jun. 2012].
38	Y	Y	Y		Y		17/06/1999	Agreement between the Governments of the Republics of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, and the Republic of Uzbekistan on the Parallel Operation of the Energy Systems of Central Asia.	Agreement Interstate Commission for Water Coordination of Central Asia.
39	Y				Y		01/01/2000	Uzbekistan carried out military exercises at the border with Kyrgyzstan, with the seeming objective of practicing for capturing the Toktogul Reservoir, located on Kyrgyz territory but used by Uzbekistan to irrigate fields in Fergana valley. This action was a response by Uzbekistan to Kyrgyzstan's flooding of farm fields, while opening the dam to produce additional electricity for its population.	Resource cut/Mobilisation of troops CACI Analyst, 2009. Fire over water in Central Asia. Available from: http://www.cacianalyst.org/?q=node/5079 [Accessed 7 Jun. 2012].
40			Y		Y		14/01/2000	Agreement Between the Government of the Republic of Uzbekistan and the Government of the Republic of Tajikistan on Cooperation in the Area of Rational Water and Energy Uses in 2000.	Annual operation agreement Agreement Between the Government of the Republic of Uzbekistan and the Government of the Republic of Tajikistan on Cooperation in the Area of Rational Water and Energy Uses in 2000. Available from: http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/Kayrakum-00.pdf [Accessed 2 May 2012].

41	Y				Y		15/01/2000	Uzbekistan reduced gas supplies to neighboring Kyrgyzstan to a minimum in retaliation for Bishkek's failure to pay its outstanding \$400,000 debt for earlier supplies, ITAR-TASS and AP reported. Most private homes in Bishkek and other areas of northern Kyrgyzstan were without gas or heating as most of Kyrgyzstan's thermal plants are gas fired.	Resource cut	RFE/RL Newline, Vol. 3, No. 11, 00-01-17.
42	Y	Y					21/01/2000	Agreement between the Government of the Republic of Kazakhstan and the Government of the Kyrgyz Republic on the utilisation of the water facilities of interstate use on the Chu and Talas Rivers . In this agreement, Kazakhstan agreed to pay Kyrgyzstan maintenance costs for the use of their shared water facilities on the Chu and Talas Rivers.	Agreement	CA Water Info portal
43	Y				Y		16/03/2000	Intergovernmental Protocol between the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on Use of the Naryn-Syr Darya Water and Energy Resources in 2000.	Annual operation agreement	Intergovernmental Protocol Between the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on Use of the Naryn-Syr Darya Water and Energy Resources in 2000 16 March 2000, Osh, Kyrgyzstan. Available from: http://www.ce.utexas.edu/prof/mckinney/papers/aryl/agreements/Annual-UzKg-00.pdf [Accessed 7 Apr. 2012]
44				Y		Y	31/03/2000	Turkmen President Saparmurad Niyazov has rejected British Foreign Secretary Robin Cook's proposal on the republic's participation in an international conference on saving the Aral Sea. Niyazov believes the politicization of this issue may cause serious difficulties in relations between the five CIS countries regarding the distribution of water resources, the presidential press service has	Declaration/ Speech	Interfax Russian News, 2000. Turkmen president against politicization of Aral Sea issue. 31 Mar.

								told Interfax.		
45				Y	Y		31/03/2000	Niyazov and Karimov had a telephone conversation today. As a most pressing topic of the current time they recalled the rational distribution and purposeful use of water resources, an issue which concerns the daily life of their two peoples and also of the other peoples of the region. The two sides stated that Turkmenistan and Uzbekistan enjoy complete consensus on this issue. The leaders of Turkmenistan and Uzbekistan came to the conclusion that these water-related issues should be regulated on the basis of bilateral relations and that any international assistance should not be accompanied by undesirable politicization.	Talks on water/energy	BBC Summary of World Broadcasts, 2000. Turkmen, Uzbek heads oppose "politicization" of regional water issues. (Turkmen Television first channel, Ashkhabad, in Turkmen) 1 Apr.
46	Y	Y					23/05/2000	Agreement between the Government of the Republic of Kazakhstan and the Government of the Kyrgyz Republic on the use of water and energy resources of the Naryn – Syr Darya cascade of reservoirs in 2000.	Annual operation agreement	Agreement Between The Government of the Republic of Kazakhstan And The Government of the Kyrgyz Republic On the Use of Water and Energy Resources of the Naryn – Syr Darya Cascade of Reservoirs in 2000. Available from: http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/Annual-KzKg-00.pdf [Accessed 4 May 2012].
47	Y	Y	Y	Y	Y	Y	07/06/2000	OSCE head Ferrero Waldner visited Central Asia and proposed a multilateral approach to water management. The presidents of Turkmenistan and Uzbekistan said they prefer to handle the problem on a bilateral basis and rejected the multilateral approach proposed by the OSCE. Kazakhstan, Kyrgyzstan, and Tajikistan, however, favor it.	Talks on water/energy	Eurasianet.org, 2000. OSCE seeks agreement on Central Asian water. Available from: http://www.eurasianet.org/departments/environment/articles/eav060600.shtml [Accessed 7 Mar. 2012].

48	Y	Y			Y	01/07/2000	Dispute between KG, KZ and UZ during July 2000. Southern Kazakhstan faced a serious water shortage after Bishkek cut supplies because of Kazakhstan's failure to meet agreed energy supplies and Uzbekistan reportedly extracted more water than it was entitled to. Uzbekistan began appropriating some of Kazakhstan's water share from the Fergana Valley. Kazakhstan lobbied Uzbekistan for more water in meetings and Kazakh TeleCom stopped relaying international telephone calls from Uzbekistan.	Resource cut/capture	BBC Summary of World Broadcasts, 2000. Kazakh-Uzbek talks on water issues stalling, Kazakh cotton crop in balance. (Khabar TV, Almaty, in Russian) 15 Jul.
49				Y		20/10/2000	Turkmen President Saparmyrat Niyazov attended a ceremony to launch a project to build a huge artificial lake in the Karakum desert in central Turkmenistan. Speaking at the ceremony, a report on which was broadcast on Turkmen TV later the same day, Niyazov said that the lake was designed to collect saline waters from all over Turkmenistan and to provide the Turkmen people with water over the next 50 years. He said the project would not harm the environment of other Central Asian states since it was merely restoring the facilities which had existed before Genghis Khan destroyed the area's water economy in the 14th century.	Resource capture	BBC Summary of World Broadcasts, 2000. Turkmen president launches project to build artificial lake. (Turkmen Television first channel, Ashgabat, in Turkmen) 21 Oct.
50	Y	Y				21/11/2000	Kazakh Prime Minister Kasymzhomart Tokayev expressed serious concern about the plans to build the Kambarata hydroelectric station in Kyrgyzstan with Kazakh funds and proposed that the project should be "blocked in every way". He thinks that it will lead to water being drawn away from the Toktogul hydroelectric station, which would have an adverse affect on water supplies in Kazakhstan.	Declaration/ Speech	BBC Summary of World Broadcasts, 2000. Kazakh government discusses water supplies to southern Regions. (Interfax-Kazakhstan news agency, Almaty, in Russian) 22 Nov.
51	Y	Y				24/11/2000	The Kyrgyz parliament has refused to pass the law ratifying an agreement with Kazakhstan on use of the water control facilities on two rivers [the Naryn and Syrdarya]. Deputies took the view that the republic's water resources are not simply a national wealth but a commodity.	Other	BBC Summary of World Broadcasts, 2000. Parliament rejects water accord with Kazakhstan. 29 Nov.
52	Y	Y				01/12/2000	KG and UZ announced with great fanfare a rescheduling agreement that was designed to solve the payment problems of natural gas sold to KG.	Annual operation agreement	Eurasianet.org, 2000. Upstream-Downstream: The Difficulties of Central Asia's Water and Energy Swaps.

									Available from: http://www.eurasianet.org/departments/business/articles/eav020601.shtml [Accessed 5 Jul . 2012].	
53	Y				Y		20/01/2001	UZ cut off natural gas supplies to KG for lack of timely payment, leaving residents in the Northern regions of KG without natural gas for part of the winter.	Resource cut	Wines, 2002. Grand Soviet Scheme for Sharing Water in Central Asia Is Foundering. The New York Times, 9 Dec.
54			Y		Y		03/02/2001	An intergovernmental agreements was signed between Tajikistan and Uzbekistan on cooperation in the efficient use of water resources in 2001.	Annual operation agreement	BBC Summary of World Broadcasts, 2001. Water and energy deals signed. (Tajik Radio first programme, Dushanbe, in Tajik) 16 Feb.
55	Y				Y		05/02/2001	Gas supplies are flowing again from Uzbekistan to Kyrgyzstan following a more than week-long cutoff that created heating and electricity shortages in many Kyrgyz cities. Uzbekistan stopped supplying gas to exert pressure on Kyrgyzstan to pay off \$1.35 million in debts for earlier deliveries.	Resumption of resource supply	Eurasianet.org, 2000. Upstream-Downstream: The Difficulties of Central Asia's Water and Energy Swaps. Available from: http://www.eurasianet.org/departments/business/articles/eav020601.shtml [Accessed 5 Jul . 2012].
56	Y				Y		26/02/2001	Talks between Kyrgyz officials and Uzbek Prime Minister Otkir Sulonov have started in Bishkek. The main subject of the talks between the two government delegations will be resumption of Uzbek gas supplies to northern Kyrgyzstan and accumulation of water in Kyrgyz reservoirs for Uzbekistan's irrigation needs," it added.	Talks on water/energy	BBC Summary of World Broadcasts, 2001. Uzbek-Kyrgyz gas, water talks begin in Bishkek. (Kabar news agency, Bishkek, in Russian) 27 Feb.

57	Y				Y	01/03/2001	An Uzbex expert declared that "Because of Kyrgyzstan's extensive water discharge during the last five years, the total loss for Uzbekistan reached almost \$1 billion,".	Declaration/ Speech	Eurasianet.org, 2001. Available from: http://www.eurasianet.org/departments/environment/articles/ea_v031901.shtml [Accessed 5 Aug . 2012].
58	Y	Y				06/03/2001	Kazakhstani and Kyrgyz authorities signed a protocol under which Kazakhstan agreed to settle a \$21.5 million debt in order to facilitate negotiations on water supplies. Kazakhstan also promised to supply Kyrgyzstan with fuel and coal. Astana is seeking up to 750 million cubic meters of water for irrigation. A formal agreement could be in place by the end of March.	Annual operation agreement	Eurasianet.org, 2001. Available from: http://www.eurasianet.org/departments/environment/articles/ea_v031901.shtml [Accessed 6 Aug . 2012].
59	Y	Y	Y		Y	16/03/2001	Protocol of Experts' Joint Working Meeting to Develop a Draft Agreement between the Governments of the Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan and Republic of Uzbekistan on Use of Naryn-Syr Darya Cascade's Water and Energy Resources in 2001.	Annual operation agreement	Protocol of Experts' Joint Working Meeting to Develop a Draft Agreement between the Governments of the Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan and Republic of Uzbekistan on Use of Naryn-Syr Darya Cascade's Water and Energy Resources in 2001. Available from: http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/Annual-Protocol-01.pdf [Accessed 5 Mar. 2012].

60	Y	Y			Y	01/06/2001	The Kyrgyzstan legislature passed a law identifying water as a legal commodity, opening the way for the imposition of a pricing structure, and within a few months the government declared that it would soon develop a fee scale by which it would charge the downstream recipients for water usage. (ICG notes that Kyrgyzstan has backed down from its original position. Whereas initially it demanded that Uzbekistan and Kazakhstan pay for all water they receive, it now insists that they pay only for the water passing through Kyrgyz reservoirs and canals – in other words, share maintenance costs.)	Adoption of legal instruments	Eurasianet.org, 2001. Water continues to be source of tension in Central Asia. Available from: http://www.eurasianet.org/departments/environment/articles/ea_v102301.shtml [Accessed 30 Apr . 2012].
61	Y	Y				24/07/2001	The presidents of Kyrgyzstan and Kazakhstan, Askar Akayev and Nursultan Nazarbayev, signed an agreement on economic cooperation for the period between 2001 and 2005. The two countries are to set up a consortium for the joint utilization of water and energy resources. The prime ministers have been instructed to draw up a plan for establishing this consortium, the presidents announced. The Kyrgyz parliament's decision to demand a charge for the utilization of Kyrgyz water resources was unacceptable for Kazakhstan, Nazarbayev said.	Joint statement/declaration	Interfax News Agency, 2001. Kyrgyzstan, Kazakhstan sign agreement on economic cooperation. 24 Jul.
62	Y	Y			Y	01/08/2001	Following up on the June law, The Kyrgyz government announced that it was preparing regulations to charge neighboring states, including Kazakhstan and Uzbekistan, for the water they use.	Declaration/ Speech	Eurasianet.org, 2001. Available from: http://www.eurasianet.org/departments/environment/articles/ea_v102301.shtml [Accessed 27 Sept. 2012].

63	Y				Y	15/10/2001	Kyrgyz First Deputy Prime Minister Nikolai Panayev told that Uzbekistan may stop supplying gas to Kyrgyzstan in the near future, at a press conference in Bishkek.	Declaration/ Speech	Interfax News Agency, 2001. Bishkek fears Tashkent may stop gas supplies. 15 Oct.
64	Y				Y	16/10/2001	Uzbek Prime Minister Utkir Sultanov told journalists in Tashkent on October 16 that Kyrgyzstan's move to charge for water would add friction to already tense relations. "The introduction of the law contradicts the international norms," Sultanov said.	Declaration/ Speech	Eurasianet.org, 2001. Available from: http://www.eurasianet.org/departments/environment/articles/ea_v102301.shtml [Accessed 27 Sept. 2012].
65	Y				Y	29/10/2001	Protocol on the joint use of water and energy resources has been signed, obliging Uzbekistan to ship 300 million cubic meters of gas, oil, fuel and lubricants to Kyrgyzstan's Bishkek and Osh heat and electricity stations. Kyrgyzstan also agreed to accept 532 million-kilowatt hours of electricity in wintertime from Uzbekistan as disbursement for Uzbekistan's energy debt. Kyrgyzstan, in its turn, guarantees the accumulation of water in the Toktogul water reservoir, Central Asia's largest, so that irrigation water will last for Uzbekistan through 2002.	Annual operation agreement	Central Asia & Caucasus Business Report, 2001. Kyrgyzstan to be fully supplied with gas from Uzbekistan. 29 Oct.
66			Y		Y	29/10/2001	Chairman of the Barki Tochik open joint stock holding company (Tajikistan) Dzhurabek Nurmakhmatov and director general of one of the units of the Russian financial-industrial group Baltic Construction Company Oleg Toni on Tuesday will sign a contract in Dushanbe to build the Rogun hydroelectric station.	Agreement	Ria Novosti, 2002. Russians to complete construction of Rogun HPP in Tajikistan. 29 Oct.
67	Y				Y	23/01/2002	Report from Uzbek TV "A number of residential areas in Namangan Region [eastern Uzbekistan] and agricultural farms are under threat of being flooded because 650-700 cu.m. of water are being released from the Toktogul reservoir at present. For example, since a great deal of water flows in the River Arnasay in winter, its water level has risen to 7.5 m during the past 5-6 years. (...) As a result, about 350,000 ha of land in Navoi and Dzhizak Regions have been flooded, we have had to move hundreds of sheep farms, and many roads and power	Floods	BBC Monitoring International Reports, 2002. Kyrgyz fail to stick to water-energy deal - Uzbek TV. 23 Jan.

								transmission lines have been hit by floods.		
68	Y	Y	Y		Y		01/02/2002	The foreign ministers of Kazakhstan, Kyrgyzstan and Tajikistan and the deputy foreign minister of Uzbekistan, have met in Almaty, Kazakhstan. They discussed regional security, drug trafficking, the threat posed by the Chardara reservoir in southern Kazakhstan and the creation of a regional water-energy consortium.	Talks on water/energy	BBC Summary of World Broadcasts, 2004. Uzbekistan agrees to act to avert overflow of Kazakh reservoir. (Khabar Television, Almaty, in Russian) 20 Feb.
69	Y				Y		15/02/2002	Uzbekistan shows concern about possible emergencies that may arise due to the increased release of water from the Toktogul reservoir in Kyrgyzstan.	Declaration/Speech	Interfax News Bulletin, 2002. Uzbekistan faces flood threat. 15 Feb.
70	Y	Y	Y		Y		05/10/2002	Joint Communiqué of the Heads of State of the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan and the Republic of Uzbekistan, where it was reiterated the need for coordinated measures in the water sector based on generally recognized norms and principles of international law.	Joint statement/declaration	Official Documents System of the United Nations.
71	Y	Y	Y	Y	Y		06/10/2002	Dushanbe Declaration, signed during the summit of the States members of the Organization of Central Asian Cooperation. It concentrates on improving information exchange on water and other natural resources	Joint statement/declaration	Official Documents System of the United Nations.
72	Y	Y	Y		Y		01/04/2003	The four central Asian states of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan are to collaborate for the construction of the Kambarata hydroelectric power plant in Kyrgyzstan. According to preliminary estimates, the construction of the first Kambarat hydroelectric power plant is expected to cost US\$1.7B, and the second is estimated at approximately US\$230M. It is expected that Central Asian states, Russia and the World Bank will provide funding for the projects.	Talks on water/energy	Water Power & Dam Construction, 2003. Central Asian states to participate in hydro. 30 Apr.

73	Y	Y	Y	Y	Y		28/08/2003	Authorization of the "Programme of concrete actions on improvement of environmental and socio-economic situation in the Aral Sea Basin for the period of 2003-2010" (ASBP-2)	Agreement	Interstate Commission for Water Coordination of Central Asia.
74			Y				01/09/2003	TJ organizes the UN supported Interantional Water Forum. Countries adopt the Dushanbe Water Appeal, that reiterates the importance of freshwater resources and calls on the United Nations, governments, organizations and stakeholders to commit themselves more fully to achieving the Millennium Development Goals and the targets agreed upon in the Johannesburg Plan of Implementation. The Appeal also invites the United Nations to declare 2005-2015 the International Decade of 'Water for Life.	Water conference	UN Documents. Dushanbe Water Appeal, Included as an Annex to A/58/362.
75	Y				Y		04/12/2003	A contract for supplying natural gas from Uzbekistan to Kyrgyzstan in 2004 still has not been signed. Two-month Kyrgyz-Uzbek talks have ended fruitlessly. A decision is expected to be made in early January 2004 . A contract for 2003 was also signed with a one-month delay, and only after Kyrgyz President Askar Akayev's personal intervention. Anyway, the 2003 contract for supplying natural gas to Kyrgyzstan is valid until the end of the year. No one can guarantee that natural gas will be supplied to Kyrgyzstan without interruption after its expiration. Currently Kyrgyzstan owes almost 11m dollars to Uzbekistan for natural gas. Of this amount, Kyrgyz people owe 4m dollars to the Kyrgyzgaz for the supplied natural gas.	No agreement reached	BBC Sumary of World Broadcasts, 2003. Kyrgyz-Uzbek talks on natural gas supplies reopen. (Public Educational Radio and TV, Bishkek, in Russian) 4 Dec.

76	Y			Y	12/12/2003	The Kyrgyz prime minister, Nikolay Tanayev, has told parliament that a deal has been reached with Uzbekistan on gas supplies and that Kyrgyzstan will be paying for Uzbek gas in foreign currency - it had been paying 45 per cent in kind. He also defended Kyrgyzstan's record in paying for gas (Kyrgyzstan has a debt of 11m dollars for Uzbek gas).	Annual operation agreement	BBC Summary of World Broadcasts, 2003. Deal reached on Uzbek gas, Kyrgyz premier tells parliament. (Kyrgyz Radio first programme, Bishkek, in Russian) 13 Dec.
77	Y	Y			25/12/2003	Kazakhstan and Kyrgyzstan agreed to jointly operate a pipeline that supplies the Central Asian neighbors with gas, one several deals aimed at expanding economic ties. Kazakhstan and Kyrgyzstan agreed to jointly operate the Bukhara-Almaty pipeline that supplies the two countries with Uzbek gas, ending a dispute between Kazakh and Kyrgyz gas companies over sharing the gas flowing through it, officials said.	Annual operation agreement	Associated Press Worldstream, 2003. Kazakhstan and Kyrgyzstan sign deals to improve economic ties. 25 Dec.
78			Y	Y	29/12/2003	Uzbekistan and Tajikistan signed water and energy supply deals and discussed other long-standing problems as they attempt to improve strained relations. Uzbek Foreign Ministry spokesman Ilkhom Zakirov said the visit by Akil and other senior ministers visit signaled "the mutual desire to finally sit down and discuss a wide range of Cooperation issues."	Annual operation agreement	Associated Press Worldstream, 2003. Uzbekistan and Tajikistan sign energy, water deals, discuss long-standing issues. 29 Dec.
79	Y		Y	Y	03/01/2004	Tajik and Kyrgyz natural-gas firms have succeeded in signing contracts with Uzbekistan's gas supplier Uztransgaz for deliveries of gas in 2004.	Annual operation agreement	RFE/RL Newslines, 04-01-06.

80	Y	Y			Y	04/01/2004	High-level delegations from Kazakhstan, Kyrgyzstan, and Uzbekistan met in Shymkent in South Kazakhstan Oblast on 4 January to discuss measures to prevent flooding from a major reservoir on the Syr Darya River. The discussion ended with the signing of a protocol under which Kazakhstan will supply coal and fuel oil to Kyrgyzstan in January and Kyrgyzstan will reduce its hydroelectric output and increase power generation in its thermal plants, while Uzbekistan will raise the flow of water from the Chardara Reservoir into its nearby Arnasai Reservoir. The three delegations also agreed to set up a working group to regulate the flow of the Syr Darya.	Annual operation agreement	RFE/RL Newslines, 04-01-06.
81		Y			Y	13/01/2004	Some Kazakh media have complained that Uzbekistan has not taken the measures promised at the 4 January meeting to control the flow from the Chardara Reservoir on the Uzbek-Kazakh border.	Declaration/Speech	RFE/RL Newslines, 04-01-14.
82	Y	Y			Y	01/02/2004	The Syr Darya River has burst its banks, submerging fields and settlements near the Uzbek-Kazakh border in the region's worst floods since 1969. The rising waters are partly due to unseasonably heavy rain over the winter, but the major reason lies in the Central Asian states' longstanding inability to manage their shared water resources in a coordinated and rational manner. The root of the problem is Kyrgyzstan's Toktogul Reservoir.	Floods	RFE/RL Central Asia Report, 2004. Volume 4, Number 7, 16 Feb.
83	Y	Y	Y		Y	11/02/2004	TJ agreed to immediately reduce its own discharges from its Qayroqqum Reservoir to stop the floods. The Syr Darya actually passes through this body of water. In the first week of February the Tajiks, far from helping to defuse the crisis, were contributing to it by discharging large additional amounts of water for their own hydroelectric purposes.	Annual operation agreement	RFE/RL Central Asia Report, 2004. Volume 4, Number 7, 16 Feb.

84		Y			Y		12/02/2004	Kazakh Agriculture Minister and Deputy Prime Minister Akhmetzhan Yesimov traveled to Tashkent for bilateral follow-up talks with Uzbek Prime Minister Shavkat Mirzayoev.	Talks on water/energy	RFE/RL Newslines, 04-02-13.
85	Y	Y			Y		14/02/2004	Karimov sent a letter to Nazarbaev blaming the current excess of water in the basin of the Syr Darya River on Kyrgyzstan's carelessness in releasing water from the Toktogul reservoir.	Open Letter	RFE/RL Newslines, 04-02-17.
86	Y	Y	Y		Y		13/05/2004	Foreign Minister of the Kyrgyz Republic Askar Aytmatov in an interview with the Kyrgyz AKIpress on 13 May 2004 commented on the country's position regarding some issues relating to Kyrgyz-Kazakh economic cooperation. "Moreover, currently an issue of the creation of an international water and energy consortium is being considered within the framework of CACO Central Asian Cooperation Organization. It is expected that an investment policy will be conducted within the framework of this consortium, which is aimed at the construction of new hydroelectric power stations - Kambar-Ata-1 and Kambar-Ata-2 southwestern Kyrgyzstan	Talks on water/energy	BBC Summary of World Broadcasts, 2004. (Corr) Kyrgyzstan to develop cooperation with "fraternal" Kazakhstan - minister. (AKIpress, Bishkek, in Russian) 13 May.
87	Y	Y	Y		Y		28/05/2004	The presidents of the four Central Asian countries, Nursultan Nazarbayev Kazakhstan, Askar Akayev Kyrgyzstan, Emomali Rahmonov Tajikistan and Islam Karimov Uzbekistan, signed a joint communique, an agreement between the member states on mutually broadcasting TV and radio programmes and a decision on setting up an international water and energy consortium within the framework of CACO.	Joint statement/declaration	BBC Summary of World Broadcasts, 2004. Central Asian leaders set up water-energy consortium. (Interfax-Kazakhstan news agency, Almaty, in Russian) 28 May.
88	Y	Y					12/07/2004	An agreement to this effect was signed during a session of the Kyrgyz-Kazakh joint intergovernmental commission for bilateral cooperation yesterday 12 July. Kazakhstan intends to buy over 1bn kWh from the country. This is the highest figure in recent years. For its part, Kyrgyzstan is ready to comply with Kazakhstan's wishes and to increase water discharges from the Toktogul reservoir. Southern Kazakh regions badly need irrigation water during the vegetation period.	Annual operation agreement	BBC Summary of World Broadcasts, 2004. (Corrected) Kazakhstan to increase imports of Kyrgyz electricity. (Pyramid TV, Bishkek, in Russian) 13 Jul.

89	Y	Y			Y		15/07/2004	Delegations from three Central Asian countries - Kyrgyzstan, Kazakhstan and Uzbekistan - are considering the issues of water discharge from the Toktogul hydroelectric power station [in northeastern Kyrgyzstan] during the vegetation period.	Talks on water/energy	BBC Summary of World Broadcasts, 2004. Kyrgyz, Kazakh, Uzbek officials discuss water issues in Tashkent. (Kyrgyz Radio first programme, Bishkek, in Russian) 16 Jul.
90		Y			Y		16/07/2004	Uzbekistan has pledged to increase the water released from the Syr Darya river to the Shardara reservoir in South Kazakhstan Region by 80 cu.m. per second to irrigate the cotton fields. This agreement was reached during a meeting between Kazakh Agriculture Minister Serik Umbetov and Uzbek Deputy Agriculture Minister Mahmud Jalolov held in the region's Makhtaaraal District on 16 July, the regional agriculture department has told the Interfax-Kazakhstan news agency.	Annual operation agreement	BBC Summary of World Broadcasts, 2004. Uzbekistan pledges more water for Kazakh cotton fields. (Interfax-Kazakhstan news agency, Almaty, in Russian) 20 Jul.
91				Y	Y		19/11/2004	Uzbek President Islam Karimov and his Turkmen counterpart Saparmurat Niyazov toasted champagne and signed agreements that signalled an end to tensions over an alleged assassination attempt on Niyazov in 2002 and over the Amu-Darya River that criss-crosses the countries' border. "We have solved the water dispute for future generations," Niyazov said.	Agreement	Agence France Presse, 2004. Turkmen, Uzbek leaders vow end to tension over water, assassination bid. 19 Nov.
92			Y			Y	16/10/2004	Tajik President Emomali Rakhmonov said after a meeting with his Russian counterpart Vladimir Putin in Dushanbe, that in all, the Russian aluminum giant RUSAL will participate in projects worth more than \$1 billion in Tajikistan. Rusal will, for example, receive an as yet unspecified stake in the Rogun hydroelectric project for \$560 million of investment in the Rogun dam's completion.	Talks on water/energy	Interfax Mining & Metals Report, 2004. RUSAL to help build aluminum smelter in Tajikistan. 21 Oct.
93	Y	Y					08/02/2005	The Kazakh-Kyrgyz intergovernmental commission has reached an agreement on the use of the Toktogul water reservoir in Bishkek. Kyrgyzstan will reduce the amount of water released by the Toktogul reservoir into the Kazakh Shardara	Annual operation agreement	BBC Monitoring Central Asia Unit, 2005. Kyrgyzs agree to cut water discharge to prevent floods in Kazakhstan. (Kazakh Television first channel,

							reservoir from 740 cu.m. per second to 650 cu.m. per second. In return, Kazakhstan will consider supplying natural gas to the neighbouring state. Pressure was put on the Toktogul hydroelectric power station due to the shortage of electricity in winter months.		Astana, in Kazakh) 8 Feb.
94			Y		Y	10/02/2005	A Tajik government delegation headed by Prime Minister Oqil Oqilov arrived in Tashkent today. Two documents were signed on the results of the talks. They are intergovernmental agreements on the mutual settlement of accounts for cargo transportation and the payment of Tajikistan's state debt in 2005, and on cooperation in the rational use of water and energy resources in the period from February 2005 to April 2006.	Annual operation agreement	BBC Monitoring Central Asia Unit, 2005. Uzbekistan, Tajikistan sign energy, debt accords. (Uzbek Television first channel, Tashkent, in Russian) 10 Feb.
95	Y				Y	06/05/2005	Incident between the border communities of Charbak and Sogment [both Kyrgyz] and Khushyor [Uzbek]. Farmers from Khushyor demand that a schedule for supplying irrigation water be changed.	Other	BBC Monitoring International Reports, 2005. NGOs said playing "key role" in settling Uzbek-Kyrgyz water row. 6 May.
96	Y		Y			19/05/2005	TJ and KG presidents met and agreed to boost the development of their relationd at all levels. They said Tajikistan and Kyrgyzstan could become the countries who could export power not only to the region but to the world as well	Talks on water/energy	BBC Monitoring Central Asia Unit, 2005. Tajik, Kyrgyz leaders hail prospects for energy ties. (Asia-Plus news agency, Dushanbe, in Russian) 19 May.

97	Y	Y	Y	Y	Y		31/05/2005	The heads of the Central Asian states have taken a decision to set up a water and energy consortium (WES). This will be a significant step towards the integrated management of water resources in the region, the Tajik minister of land reclamation and water resources, Abduqohir Nazirov, told a conference in Dushanbe today.	Talks on water/energy	BBC Monitoring Central Asia Unit, 2005. Central Asia agrees consortium for rational use of water at Tajik forum. (Avesta website, Dushanbe, in Russian) 31 May.
98			Y			Y	01/06/2005	A session of the Tajik Assembly of Representatives has cancelled an old agreement (1994) between the Russian and Tajik governments to complete the construction of the Rogun hydro-electric power station on the River Vakhsh. Another reason for the cancellation of the agreement was the signing of a new agreement "On long-term cooperation between the Tajik government and RusAl.	Cancellation of an agreement	BBC Monitoring Central Asia Unit, 2005. Tajik-Russian power plant deal cancelled. (Avesta website, Dushanbe, in Russian) 1 Jun.
99			Y			Y	19/09/2005	Rahmon announced that construction of Rogun will begin with the involvement of Russian capital in late September. Rahmon stressed again the strategic importance of the unique hydroelectric power station not only for Tajikistan and Russia, but also for the neighbouring countries, specifically Afghanistan.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2005. Russia to start construction of Tajik power plant late September. (ITAR-TASS news agency, Moscow, in Russian) 19 Sep.
100	Y		Y				13/02/2006	The current state and prospects for cooperation between Tajikistan and Kyrgyzstan were discussed by the head of the Tajik state and the Kyrgyz diplomat during a meeting which was held after the presentation of credentials. The construction of the Batken-Konibodom power transmission line [linking Tajik north with southwestern Kyrgyzstan] and the Dushanbe-Saritosh [on the border with Kyrgyzstan] as an important factor for expanding Tajik-Kyrgyz relations was also discussed. This was said to be one of the most important directions of the development of relations between the two neighbouring countries, as well as the expansion of mutually beneficial bilateral cooperation in the hydroelectric power sector and mining industry and rational use of water resources.	Talks on water/energy	BBC Monitoring Central Asia Unit, 2006. Tajik president receives Kyrgyz envoy, relations discussed. (Tajik television) 14 Feb.

101	Y	Y				26/07/2006	Kyrgyzstan and Kazakhstan Inaugurate the Chu-Talas Rivers Commission	Establishment of a joint body	UNECE, 2006. Kyrgyzstan and Kazakhstan Inaugurate the Chu-Talas Rivers Commission. 24 Jul.
102	Y	Y	Y		Y	07/09/2006	Leaders of KZ, KG, TJ and UZ -- who discussed economic, security and cultural cooperation -- concluded two pacts covering water resources -- one that seeks to save the shrinking Aral Sea and another that strives to improve the regional water management system. Summit participants envisioned the creation of a consortium to tackle long-running disputes over the distribution of scarce water resources.	Talks on water/energy	Eurasianet.org, 2006. Central Asian leaders seek to improve regional cooperation. 8 Sep.
103	Y				Y	01/10/2006	During his visit to Kyrgyzstan in October 2006 the president of Uzbekistan made yet another statement about 'further strengthening collaboration in fighting international terrorism, religious extremism, and transnational organised crime' (cited in Asrorov 2006). What Islam Karimov didn't mention in his communique' was the fact that at that moment the two countries were perilously close to an open confrontation over water in the Toktogul Reservoir, the illegal presence of Uzbek troops in the Sokh enclave, disputes over natural gas prices and Uzbek refugees from Andijan.	Other	Gazeta Kz., 2006. Pogovorim ob uzbeksko-kirgizskikh otnosheniakh. 15 Nov.
104	Y				Y	14/12/2006	Kyrgyzstan has agreed to buy gas from Uzbekistan at 100 dollars per 1,000 cu.m. At Uzbekistan's request, Kyrgyzstan agreed to discharge additional 1.56bn cu. m. of water [from the Toktogul reservoir] for Uzbekistan's irrigation needs. The neighbouring country agreed to buy 1.3bn electricity from Kyrgyzstan at 0.011 [figure as heard] per kWh during the vegetation period.	Annual operation agreement	BBC Monitoring Central Asia Unit, 2006. Kyrgyzstan agrees to buy Uzbek natural gas at new price. (Kyrgyz Television 1) 15 Dec.
105	Y				Y	15/12/2006	Kyrgyzstan and Russia are launching a major energy-generating project to build the Kambarata-1 and Kambarata-2 hydroelectric cascades in the Central Asian state, to be operated by Russian electricity monopoly Unified Energy System (UES), and designed to produce electricity for domestic needs and exports to Pakistan, Afghanistan and northern China.	Joint statement/declaration	Ria Novosti, 2006. Russia, Kyrgyzstan embark on multi-billion dollar energy project. 15 Dec.

106			Y		Y		01/02/2007	Uzbek Prime Minister Writes to his Tajik Colleague on Rogun Hydroelectric Power Station, requiring a detailed examination of the project , accusing TJ of "full ignorance on the part of the Government of the Republic of Tajikistan, which has not viewed possible after-effects and the proper planning and technical support, but yet continues to speedily undertake construction of this facility."	Open Letter	Mirziyoyev, 2007. Uzbek Prime Minister Writes to his Tajik Colleague on Rogun Hydroelectric Power Station. 3 Feb.
107	Y	Y				Y	15/03/2007	The Kyrgyz government intends to set up a joint venture with Kazakhstan and Russia to build two Kambarata hydroelectric power stations. Kyrgyzstan will own 34 per cent of the shares in the joint venture, and Russia and Kazakhstan 33 per cent each, First Deputy Prime Minister Daniyar Usenov said that according to preliminary estimates, about 2bn dollars were needed to build the two hydroelectric power stations, of which 1.7bn dollars would be spent on Kambarata 1 and 300m dollars on Kambarata 2. Kyrgyzstan has already invested a little more than 150m dollars into building the Kambarata 2 hydroelectric power station. In principle, Kazakhstan and Russia also must invest 150m dollars each. "The Kambarata projects have been included in a state economic development programme. The work on setting up the joint venture must be completed this year," Usenov said.	Talks on commercial cooperation	BBC Monitoring Central Asia Unit, 2007. Kazakhstan, Russia to build hydroelectric power stations in Kyrgyzstan. (Kyrgyz AKIpress) 15 Mar.
108			Y		Y		28/04/2007	Tajik President Emomali Rakhmonov and Uzbek President Islam Karimov have discussed prospects for bilateral cooperation, as well as hydroelectricity problems, in a telephone conversation, the Tajik presidential press service said on Saturday.	Talks on water/energy	Russia & CIS Presidential Bulletin, 2007. Tajik Uzbek leader discuss prospects for cooperation. 28 Apr.

109	Y	Y					30/04/2007	As an outcome of Nazarbayev's visit to Kyrgyzstan, a joint venture involving state-owned companies from Kazakhstan, Kyrgyzstan and Russia is established. The new venture is expected to finish construction on two hydroelectric power stations located on the Naryn River -- Kambarata 1 and Kambarata 2 --.	Establishment of a joint-venture	Eurasianet.org, 2007. Nazarbayev Flexes Diplomatic Muscle During Visit to Kyrgyzstan. 30 Apr.
110	Y	Y					09/07/2007	Kazakhstan annulled Kyrgyzstan's debt for the usage of railways and spread the national tariffs onto the country, and contributed US\$100 million to a US\$120 million joint investment fund to be created. Kazakh delegation also announced its intention to bid in the tender for the Kambarata stations.	Talks on commercial cooperation	Global Insight, 2007. Kazakhstan Outmanoeuvres Russia Over Investment in Kyrgyzstan. 13 Jul.
111	Y	Y	Y		Y		29/08/2007	Another round of talks on the use of water and energy resources of the River Syr Darya by the Central Asian states has ended unsuccessfully	No agreement reached	BBC Monitoring Central Asia Unit, 2007. Central Asian talks on joint water use break down in Uzbekistan. (Tajik news agency Asia-Plus website) 29 Aug.
112			Y			Y	29/08/2007	Rahmon announced that Tajikistan has cancelled a deal with the giant Russian aluminium company, RusAl, to build Rogun, after the two sides failed to come to agreement over the height and type of dam to be built.	Declaration/Speech	BBC Monitoring Central Asia Unit, 2007. Backgrounder: Tajikistan cancels giant Russian dam project. 11 Sep.

113	Y		Y				18/09/2007	Kyrgyzstan, Tajikistan sign several accords, among which an agreement between the Ministry of Agriculture, Water Resources and Processing Industry of Kyrgyzstan and the Ministry of Agriculture and Environmental Protection of Tajikistan "On cooperation in the agricultural sector".	General cooperation agreement	BBC Monitoring Central Asia Unit, 2007. Kyrgyzstan, Tajikistan sign several accords. (Kyrgyz AKIpress website) 18 Sep.
114	Y					Y	18/09/2007	Bakiyev expressed his wish to hold in Bishkek an international water and energy summit under the aegis of the European Union, and to set up in Kyrgyzstan an international water management academy, which could train highly skilled specialists in this field.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2007. Kyrgyz paper says sides agreed on disputed areas at talks with Tajik leader. 21 Sep.
115			Y	Y	Y		07/01/2008	As a result of temperature fall in the Central Asian countries, Uzbekistan and Turkmenistan Cut Electricity Supply to Tajikistan.	Resource cut	Regnum news agency, 2008. Uzbekistan, Turkmenistan Cut Electricity Supply to Tajikistan. 7 Jan.
116	Y						10/01/2008	Bakiyev said that "The government should start with the possible emission of long- term bonds for large national projects, including Kamarata 1 and 2 and an international highway."	Declaration/ Speech	Russia & CIS Business & Financial Daily, 2008. Bakiyev suggests issuing bonds for national projects. 10 Jan.
117	Y						23/01/2008	The Kyrgyz government has endorsed the draft budget and its own programme of action for 2008, in which a total of 1.2bn soms are planned to be channelled into the construction of the Kamarata hydroelectric power station.	Adoption of legal instruments	BBC Monitoring Central Asia Unit, 2008. Kyrgyz government endorses draft budget for 2008. 28 Jan.
118			Y		Y		24/01/2008	A report published on an UZB newspaper criticized Tajik hydroelectric power production projects, and said they might cause environmental problems in the region.	Newspaper article	BBC Monitoring Central Asia Unit, 2008. Uzbek expert raps Tajik hydroelectric power station projects. 25 Jan.

119	Y		Y				25/01/2008	Tajik Prime Minister Oqil Oqilov expressed the opinion that it is necessary to boost the construction of the [Kyrgyz] Kambarata power stations. "This winter demonstrated that we should speed up the construction of the Kambarata-1 and Kambarata-2 hydroelectric power stations, whether we want it or not," Oqilov said.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2008. Kyrgyz, Tajik premiers discuss electricity supply, transport. 25 Jan.
120	Y	Y					18/02/2008	Kazakh, Kyrgyz foreign ministers discuss cooperation. Tazhin also said that efficient use of water and energy resources was also discussed. "We reached an agreement to take all the necessary measures to prevent consequences that could be caused by unregulated water discharges in the River Syrdarya," he said.	Talks on water/energy	BBC Monitoring Central Asia Unit, 2008. Kazakh, Kyrgyz foreign ministers discuss cooperation. 18 Feb.
121	Y		Y				01/03/2008	150 Tajik residents of Isfara crossed the border into Kyrgyz territory to try to destroy a dam that cut them off from water sources. The dam was reopened later, after the Tajik side had to retreat due to armed threats by Kyrgyz border guards.	Resource capture/Prot ests	Eurasianet.org, 2008. Ferghana Valley: Harsh Winter's Legacy Stokes Ethnic Tension. 1 Jun.
122		Y	Y				13/05/2008	Kazakhs President Nursultan Nazarbayev indicated that Astana was very interested in investing in Tajik hydro-power projects. "If a consortium will work on the Rogun hydroelectric power station, then Kazakhstan will take part, providing materials, helping with shares, and as investors," Nazarbayev said during a May 13 joint news conference.	Declaration/ Speech	Radio Free Europe, 2008. Central Asia: Kazakh, Tajik Presidents Show Oil And Water Do Mix. 14 May.

123	Y		Y				16/05/2008	The presidents of Kyrgyzstan and Tajikistan have signed an agreement on setting up an inter-governmental coordinating council. Tasks and ways of resolving problems in the water and energy, transport and communications sectors were defined as priority	Establishment of a joint body	BBC Monitoring Central Asia Unit, 2008. Kyrgyzstan, Tajikistan sign cooperation accords. 16 May.
124	Y	Y	Y		Y		10/06/2008	Kyrgyzstan will supply 1bn kWh of electricity and additionally discharge 1.2bn cubic metres of water, that is in excess of its own needs, to neighbouring countries. An agreement to this effect has been reached at a regional conference of the heads of the Kazakh, Kyrgyz, Tajik and Uzbek water resources, fuel and energy sectors.	Annual operation agreement	BBC Monitoring Central Asia Unit, 2008. Kyrgyzstan reaches electricity, water accords with neighbours. 10 Jun.
125	Y	Y			Y		08/07/2008	Kazakhstan, Uzbekistan agree on free access to water of river. We have reached an agreement with Uzbekistan on free access to water of the River Syr Darya, Kazakh Deputy Prime Minister Umurzak Shukejev said in Tashkent today. "We reached agreements with the Kyrgyz government last week on purchasing electricity amounting to 500m kW [as published]. In return for this, Kyrgyzstan is to discharge approximately 600m cu.m. of water from the Toktogul [reservoir]," Shukejev said.	Annual operation agreement	BBC Monitoring Central Asia Unit, 2008. Kazakhstan, Uzbekistan agree on free access to water of river. 8 Jul.
126	Y	Y					18/07/2008	Kazakhstan threatens to stop buying Kyrgyz electricity if water not supplied. Kazakhstan should not beg for the water which it is entitled to. We gave our partners in Uzbekistan and Tajikistan until Monday [21 July]. Kazakhstan will stop buying electricity from Kyrgyzstan if water is not supplied to the Dostyk channel by that time," the chairman of the committee for water resources of the Kazakh Ministry of Agriculture, Anatoliy Ryabtsev, said at a news conference in Shymkent today.	Threatening/Warning	BBC Monitoring Central Asia Unit, 2008. Kazakhstan threatens to stop buying Kyrgyz electricity if water not supplied. 18 Jul.
127	Y	Y	Y		Y		19/07/2008	Astana has warned Tashkent that if Uzbekistan hinders water supply from Kyrgyzstan into the Dostyk canal (in South Kazakhstan Region, SKR) then not only Kazakhstan but also other countries in the region will suffer from this. "Otherwise, the purchase of expensive electricity from Kyrgyzstan will be stopped. Not only Kazakhstan but also fields	Threatening/Warning	BBC Monitoring Central Asia Unit, 2008. Kazakhs warn Uzbeks of consequences if Kyrgyz water not supplied. 19 Jul.

								in Uzbekistan and Tajikistan will suffer from this," says the government's telegram, the text of which is available to the Interfax-Kazakhstan news agency.		
128	Y	Y	Y	Y	Y		11/09/2008	The Syr Darya basin countries have failed to agree on the most topical issue - rational use of river water. The heads of water and energy facilities in the Central Asian states admitted that they practically reached deadlock in Astana yesterday evening.	No agreement reached	BBC Monitoring Central Asia Unit, 2008. Kyrgyz paper urges compromise on energy, water issues in Central Asia. 12 Sep.
129	Y					Y	09/10/2008	The Russian and Kyrgyz presidents have ordered to accelerate the construction of the first and second Kambarata hydropower plants in Kyrgyzstan.	Declaration/Speech	Central Asia General Newswire, 2008. Russian, Kyrgyz presidents want faster building of Kambarata HPP. 9 Oct.
130	Y	Y	Y	Y	Y		20/10/2008	Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan have agreed to coordinate the use of common water and energy resources of the region during the 2008-09 winter and crop seasons.	Annual operation agreement	BBC Monitoring Central Asia Unit, 2008. Central Asian states to coordinate use of common water, energy resources. 20 Oct.
131			Y		Y		03/12/2008	Uzbekistan against construction of Tajik power plant on transborder river. "We think that all decisions on using a watercourse of transborder rivers, including on building hydro-technical facilities, should not, under no circumstances, damage the environment and infringe the interests of people, who live in the contiguous countries," the paper quoted the acting head of the State Committee for Environment Protection, Boriy Alixonov, as saying at an international environmental forum held in Asgabat on 3 December.	Declaration/Speech	BBC Monitoring Central Asia Unit, 2008. Uzbekistan against construction of Tajik power plant on transborder river. 16 Dec.
132			Y	Y	Y		01/01/2009	As of Jan. 1 Uzbekistan halted the transmission of power supplied by Turkmenistan to Tajikistan, which heightened the severity of the country's power shortage into an even more severe crisis.	Resource cut	Central Asia Online, 2009. In the resolution of the energy crisis in Tajikistan, a word for Uzbekistan. 30 Jan.

133	Y		Y		Y	Y	23/01/2009	While visiting Uzbekistan, Medvedev stated that "Hydroelectric power stations in the Central Asian region must be built with consideration of the interests of all neighbouring states," adding that, "if there is no common accord of all parties, Russia will refrain from participation in such projects." As a reaction to this, the MFA of Tajikistan had sent a note of protest to the Russian Federation embassy.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajikistan offended by Russian leader's remarks on water use in region - paper. 11 Feb.
134			Y		Y		27/01/2009	"We will build the Roghun hydroelectric power station although somebody will be against it," the deputy Tajik minister of energy and industry Pulod Muhiddinov said.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajikistan to go ahead with construction of power plant - official. 27 Jan.
135	Y					Y	01/02/2009	Russia has gone ahead bilaterally with Kyrgyzstan with a pledge of a loan of \$1.7 billion to invest in the Kambarata hydro project.	Joint statement/de claration	Ministry of Economy of the Kyrgyz Republic, 2012. Regulation of specific industries. 21 Sep.
136			Y			Y	02/02/2009	Rahmon has cancelled his visit to Moscow. "There is a big suspicion that the refusal is a response to a speech by Medvedev, who just over a week ago in Tashkent agreed with Uzbekistani President Islom Karimov that issues of constructing hydroelectric power stations should be decided collectively, taking account of the interests of all countries in the region," Daniil Kislov, founder and chief editor of the Fergana.ru news agency, told Gazeta.ru.	Dipl. rel. Cooling	BBC Monitoring Former Soviet Union - Political, 2009. Tajik leader's Moscow visit cancellation shows cooling of relations with Russia. 6 Feb.
137			Y	Y	Y		10/02/2009	As of 10 February, Tajikistan is again on the brink of energy collapse as last winter. Tajikistan says the electricity crisis has been caused by a dry summer, as well as the unresolved issue of Turkmen electricity transit via Uzbekistan.	Newspaper article	BBC Monitoring Central Asia Unit, 2009. Uzbek leader against politicizing Central Asian water. 26 Feb.
138	Y		Y		Y		13/02/2009	At a session of the Cabinet of Ministers on 13 February, Uzbek President Islom Karimov said Uzbekistan did not mind Tajik and Kyrgyz energy projects if independent experts guarantee that the projects would not damage the environment, Uzbek TV reported the same day.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Uzbeks not against Tajik, Kyrgyz energy projects if ecology not harmed - leader. 13 Feb.

139			Y	Y		18/02/2009	UZ and TJ s signed an agreement on cooperation in the fields of water, energy and gas. The sides agreed a schedule of water discharge from the Qayroqqum reservoir, in line with which the Tajik side will fill the reservoir of the Qayroqqum hydroelectric power station by 30 May.	Annual operation agreement	BBC Monitoring Central Asia Unit, 2009. Tajikistan, Uzbekistan agree steps to ease water dispute. 19 Feb.
140			Y	Y		19/02/2009	As a consequence of the 18 Feb. Agreement, and at the culmination point of Tajik-Uzbek energy disputes, the Uzbek side resumed the supply of electricity to Tajikistan.	Resumption of resource supply	CACI Analyst, 2009. Fire over water in Central Asia. Available from: http://www.cacianalyst.org/?q=node/5079 [Accessed 7 Jun. 2012].
141				Y	Y	25/02/2009	Uzbek President Islom Karimov has said water problems in the Central Asian region should not be politicized, and shows good relationship with Turkmen president. Karimov said that projects on the construction of power plants on transborder rivers in the region must undergo an international examination.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Uzbek leader against politicizing Central Asian water. 26 Feb.
142	Y		Y		Y	14/04/2009	The Uzbek foreign ministry issued a formal statement warning that Rogun and Kambarata projects “pursue commercial interests and far-reaching political objectives, but disregard the possible consequences and ignore the concerns of the neighbouring states”.	Declaration/ Speech	IWPR, 2009. Tashkent Sees Astana as Possible Ally on Water. 18 Apr.
143	Y	Y	Y	Y	Y	15/04/2009	In an annual address to parliament, Rahmon dismissed as “groundless” claims that hydroelectric schemes will reduce water flows and harm the environment. Two days later, Kyrgyzstan’s Kurmanbek Bakiev accused unspecified “other countries” of trying to “gain control over our	Declaration/ Speech	IWPR, 2009. Uzbek Overtures to Kazakhstan on Water Dispute. 30 Apr.

							strategic resources". Meanwhile, UZ has been busy enlisting the other downstream states, Turkmenistan and Kazakstan, to support its cause.		
144	Y	Y	Y	Y	Y	28/04/2009	IFAS Summit in Almaty: the five Central Asian leaders met to discuss water issues related to the Aral Sea. The discussion on the interstate regulation of the Syr Darya and Amu Darya rivers (both flowing into the Aral Sea) between upstream and downstream countries dominated the summit's agenda. It exposed some of the deepest divisions among the region's leaders. Uzbekistan's President Islam Karimov bullied upstream Kyrgyzstan and Tajikistan for their plans to implement more assertive water management policies. Kazakhstan's President Nursultan Nazarbayev, in turn, demonstrated his upper hand by seeking to moderate the discussion, while Turkmenistan's Gurbanguly Berdimuhamedov called on others to seek a regional balance without clarifying how this might be achieved. The summit ended with the signing of an agreement without any specific detail on transnational water management.	Joint statement/declaration	Agence France Presse, 2009. Central Asian water talks boil over into bickering. 28 Apr. ; AKIpress, 2009. President Bakiev hints neighboring countries that Kyrgyzstan needs compensation for water accumulation. 28 Apr.
145	Y		Y		Y	30/04/2009	ALMATY follow-up: TJ paper "Tajikistan" accuses UZ of having created a "Plot hatched to mislead world community". "In fact, Mr Karimov's covert goal of intensifying a dispute over water and electricity in the region, which has been continuing for 17 years, is to attract the attention of the world community to investment projects for the construction of hydroelectric power stations in Tajikistan and Kyrgyzstan. Islam Karimov knows well that every time he plays this card in a specific manner, the issue of foreign investment in the hydroelectric power stations in the region will be postponed for a certain time. This is because Tashkent's hue and cry has made international donor organizations to act cautiously. Seeing and knowing this, Karimov is skilfully using this card.	Newspaper article	BBC Monitoring Central Asia Unit, 2009. Tajik paper claims Uzbekistan to blame for demise of Aral Sea. 18 May.

146	Y			Y	Y		05/05/2009	ALMATY follow-up: President Bakiyev of Kyrgyzstan stated in May of 2009 that both phases of the Kambarata power project will be built, regardless of “who likes it or not,” a clear challenge to the objections of Tashkent and Ashgabat.	Declaration/ Speech	Eurasianet.org, 2009. Kyrgyzstan: Bakiyev Stands Up to Uzbekistan and Turkmenistan on Hydropower Projects. 6 May.
147			Y	Y	Y		30/05/2009	Tajik President Rahmon speaks about Rogun with participants in a session of the regional political dialogue between the EU troika and the Central Asian countries at the level of foreign ministers. "We adhere to the principled line which is based on the need to maintain balance of both national and regional interests. In this connection I would like to stress two important points. First, the hydroenergy sector is not water consuming and it does not consume water without return. It just lets water through turbines of the hydroelectric power station. Unlike the hydroenergy sector, irrigated farming takes the river flow without return, and even if returns, it returns part of water as a drained water of very bad quality. I have repeatedly said from various rostrums that none of Tajikistan's projects in this sector [energy sector] will not be aimed against our neighbours," Emomali Rahmon said.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. None of Tajik energy projects aimed against neighbours - leader. 1 Jun.
148	Y				Y		13/06/2009	Uzbek authorities decided to strengthen security on the Kyrgyz-Uzbek border. Specifically, they dug ditches in the Suzak, Aksy and No'okat borderline regions of Kyrgyzstan and erected walls in the Rishtan rayon of Uzbekistan's Ferghana region. One explanation for Uzbekistan's decision relates to Kyrgyzstan's intention to build the Kambarata hydro-electric station. Bishkek-based political scientist Mars Saryev views the current Uzbek policy as yet another sign of disapproval of such plans, and another way of raising difficulties for the Kyrgyz in realizing their energy potential.	Issue linkage	CACI Analyst, 2009. Uzbekistan-Kyrgyzstan building a wall. 7 Jan.
149			Y		Y		15/06/2009	If the construction of hydroelectric power stations has turned into a national idea for Tajikistan, then for Uzbekistan such idea is the issue of water usage because over 60 per cent of the Uzbek population live in rural areas, the assistant of the Uzbek	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajikistan, Uzbekistan should seek compromise on water row - Uzbek diplomat. 16 Jun.

								ambassador to Tajikistan, Yuriy Nagay, told Asia-Plus. We need to listen to each other attentively and come to agreement," the assistant of the Uzbek diplomat convinced.		
150				Y			16/07/2009	Turkmen President Gurbanguly Berdimuhamedow launched the first stage of the Grand Turkmen Lake, a huge artificial lake in the desert. Berdimuhamedow stressed the significance of the Turkmen lake and added: "As is known, our initiatives to provide water and environmental security, as well as safe use of transboundary water resources in Central Asia and to deal with the aftermath of the Aral tragedy demonstrate that Turkmenistan is making huge efforts to contribute to common work on preserving the nature and improving environment". The project will be implemented in three stages.	Resource capture	BBC Monitoring Central Asia Unit, 2009. Turkmenistan contributes to "saving" transborder water resources - leader. 16 Jul.
151			Y		Y		19/09/2009	Tajikistan suspends exporting electricity to Uzbekistan. "Tajikistan would benefit more from selling energy to the neighbouring country, rather than releasing water for nothing," Yodgori said.	Resource cut	BBC Monitoring Central Asia Unit, 2009. Tajikistan suspends exporting electricity to Uzbekistan. 19 Sep.
152	Y				Y		23/09/2009	Uzbekistan suspends gas supplies to southern and northern Kyrgyzstan due \$19US million gas debt owed.	Resource cut	AKIpress, 2009. Gas supplies resume in Osh. 14 Oct.
153	Y	Y					28/09/2009	Kazakhstan and Kyrgyzstan are holding talks on mutual exchange of electricity. "The fundamental agreement is that we help Kyrgyzstan with electricity in winter and in return they supply water to our south during the irrigation period," Mynbayev said.	Talks on water/energy	BBC Monitoring Central Asia Unit, 2009. Kazakhstan, Kyrgyzstan discuss mutual energy issues. 28 Sep.
154			Y		Y		30/09/2009	Uzbekistan has completely cut off gas supplies to Tajikistan over a debt that exceeds 18m dollars, a report circulated by the open joint-stock company Tojiktransgaz [Tajikgas transportation] today says.	Resource cut	BBC Monitoring Central Asia Unit, 2009. Uzbekistan cuts off gas supplies to Tajikistan over debt. 30 Sep.

155			Y		Y		30/09/2009	Uzbekistan resumes gas supply to Tajikistan after the latter has paid the most part of its \$18US million debt for gas.	Resumption of resource supply	BBC Monitoring Central Asia Unit, 2009. Uzbekistan resumes gas supplies to Tajikistan. 30 Sep.
156	Y				Y		14/10/2009	Uzbekistan resumes gas supply to Osh (gas was cut on september 23)	Resumption of resource supply	AKIpress, 2009. Gas supplies resume in Osh. 14 Oct.

157			Y	Y	21/10/2009	<p>The former head of the Tajik Barq-i Tojik power supply company, Sharifkhon Samiyev, blames Uzbekistan for energy problems. "I think that energy issues between Tajikistan and Uzbekistan have long acquired a political and not economic nature." [Reporter Ramziddin Najmiddinov:] Everybody in Tajikistan believes that after construction of the Roghun hydroelectric power station and commissioning of the South-North and Tajikistan-Afghanistan power transmission lines, many energy problems in the country will be resolved. [Sharifkhon Samiyev:] I also believe in this. But one should look at things realistically. The issue of constructing Roghun is not resolved in one or two years. At the same time, Tajikistan's demand in electricity is growing every day."</p>	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajik official blames Uzbekistan for energy problems. 7 Nov.
158			Y	Y	24/11/2009	<p>Uzbek Ambassador to Tajikistan Shoqosim Shoislomov said in Dushanbe that Uzbekistan will end its participation in the Soviet-era electric power grid as of December 1. He said Uzbekistan has built a new power distribution system that can provide all of its regions with electricity and does not need the outdated electricity grid. Homidjon Orifov, the head of Tajikistan's National Committee for Dams, said Uzbekistan's move is most likely connected to the Tajik-Uzbek standoff regarding the construction of a new hydropower station near the Tajik city of Roghun.</p>	Withdrawal from a regional org.	Radio Free Europe, 2009. Tajikistan Reacts To Uzbek Decision To Quit Power Grid. 27 Nov.
159			Y	Y	25/11/2009	<p>Husrav Goibov, deputy head of the CIS department at the Tajik Foreign Ministry, says that "The unilateral decision made by Uzbekistan to leave the Central Asian Unified Energy System runs counter to the principles of neighborliness and is politically motivated,"</p>	Declaration/ Speech	Interfax News Agency, 2009. Uzbekistan's withdrawal from Central Asian power grid. 25 Nov.

160			Y	Y		01/12/2009	UZ withdraws from Central Asian power grid. Uzbek officials say Tashkent's participation in the regional system endangers the flow of electricity to its domestic consumers. If UZ does not quickly reverse its decision, some Tajiks suggest Dushanbe will retaliate by restricting water supplies that Tashkent desperately needs to keep the country's cotton sector afloat during the spring and summer.	Withdrawal from a regional org.	BBC Monitoring Central Asia Unit, 2009. Uzbekistan withdraws from Central Asian power grid from 1 December. 1 Dec.
161				Y	Y	13/12/2009	Uzbek President meet with Turkmen President. In a speech Karimov said that "I would like to specifically note the commonality of interests and stances regarding the rational and fair use of water and energy resources in the Central Asian region".	Talks on water/energy	BBC Monitoring Central Asia Unit, 2009. Uzbek, Turkmen leaders upbeat on bilateral ties. 13 Dec.
162	Y	Y		Y		23/12/2009	Kyrgyz President Kurmanbek Bakiyev has said that downstream countries such as Uzbekistan and Kazakhstan will benefit from the construction of the Kambarata 2 hydroelectric power station. He said by constructing the power plant Kyrgyzstan would ensure uninterrupted power supply for local population and accumulate water for irrigation needs of downstream countries in the region.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Kyrgyz leader says neighbours to benefit from new power plant. 23 Dec.

163	Y				Y	28/12/2009	Uzbek President Islam Karimov held a meeting with Kyrgyz Prime Minister Daniyar Usenov to discuss prospects for developing bilateral cooperation. Following the talks, Kyrgyz Prime Minister Daniyar Usenov said his country would possibly carry out an international expert examination of the project of the Kambarata-1 hydroelectric power station. "The Uzbek side has informed the Kyrgyz one of its concern over plans to construct the Kambarata-1 power plant in view of possible damage to the environment and the water and energy balance, as well as possible technological threats. For this reason, Uzbekistan has requested to carry out an international expert examination of the project under the aegis of the World Bank. The reservoir of the planned Kambarata-2 hydroelectric power station will contain 5bn cu.m. of water. This volume is large enough. Kyrgyzstan will benefit from the conduct of an expert examination of Kambarata-1. According to him, a delegation of the World Bank's Board of Directors visited the place allocated for the construction several weeks earlier. "I asked them to help and allocate a grant to carry out a thorough expert examination of Kambarata-1. All the major facilities should undergo an international examination. We see nothing bad in it," the Kyrgyz prime minister noted.	Talks on dam	BBC Monitoring Central Asia Unit, 2009. Kyrgyzstan may agree to probe into major water facilities - premier. 30 Dec.
164			Y		Y	01/01/2010	Since January, Tashkent has delayed thousands of rail carriages, citing "technical and logistical" issues. Dushanbe says Tashkent is trying to sabotage construction of a giant hydroelectric power plant, Rogun.	Border tensions	Eurasianet.org, 2010. Boxcar Diplomacy Puts Tajik Businesses At Tashkent's Mercy. 6 Aug.
165			Y			01/01/2010	In his official address to Tajik citizens, President Rakhmon announced that 2010 will be the year "when great resources will be mobilized" to construct the 3,600 mw Rogun dam. "The construction of this site, important for our country, has turned into the arena of labor, bravery and generosity, trials of heroism, and, more so, our national idea," said Rakhmon.	Declaration/ Speech	Eurasia Daily Monitor, 2010. Will Tajikistan Successfully Construct Rogun? Volume: 7 Issue: 17.

166			Y		Y		08/01/2010	Uzbektransgaz, the gas transport arm of Uzbekistan's state-run Uzbekneftegaz, cut gas supplies to Tajikistan in half, from 480,000 cm/d to 240,000 cm/d, due to Tajikistan's failure to pre-pay for gas supplies.	Resource cut	Agence France Presse, 2010. Uzbekistan halves energy to Tajikistan: company. 8 Jan.
167	Y	Y	Y	Y	Y		14/01/2010	Water resource ministers of the 5 Central Asian countries wrapped up two days of discussions on water pumping limits and operation of hydroelectric dams on transborder rivers.	Talks on water/energy	Central Asia Online, 2010. Ministers discuss water use and allocation for 2010. 15 Jan.
168			Y		Y		03/02/2010	In a letter to his Tajik counterpart Akil Akilov, which appeared in the media before reaching the addressee, Uzbek Prime Minister Shavkat Mirziyoyev called on Tajikistan to reconsider the construction of Rogun in order to prevent environmental dangers, maintain water balance, and provide continuing access to water for millions of people. He also stated "it is necessary to make an independent evaluation of the project before resuming the construction of the Rogun hydropower plant. The project was elaborated about 40 years ago and based on obsolete technologies".	Open Letter	Global Insight, 2010. Uzbekistan Calls for Independent Assessment of Hydropower Project in Tajikistan. 4 Feb.
169			Y		Y		07/02/2010	Akilov sent an open letter to Mirziyoyev posted by the Khovar news agency. He emphasized the country's sovereign right to build the dam to rectify energy deficits, which have plagued the country for years now but "have been impossible to cover by energy imports because of ongoing man-made obstacles." He also referred to the project's compliance with international law and the 2006 assessment by the German Lahmeyer corporation. The latter allegedly confirmed that the project takes ecological issues into consideration, something Uzbekistan seriously questions.	Open Letter	Central Asia General Newswire, 2010. Tajik premier again affirms absence of Rogun HPP threat to Uzbekistan. 8 Feb.

170			Y		Y		08/02/2010	The reaction of Uzbek side on Akilov's letter has been to cut gas supplies to TJ. "Since Sunday, Uzbekistan has cut in half -- from 28,000 cubic metres of natural gas per hour to 15,000 cubic metres -- gas to Tajikistan," a company spokesman told AFP.	Resource cut	Agence France Presse, 2010. Uzbekistan cuts energy to Tajikistan amid tensions: company. 8 Feb.
171			Y		Y		10/03/2010	The World Bank announced that they will underwrite an environmental feasibility study for the proposed Rogun hydropower project. "If the Rogun project proves its financial and environmental sustainability, the World Bank will provide the financial aid and support to the government of Tajikistan for the establishment of a consortium that will build this plant. The Tajik government and the World Bank will sign an appropriate memorandum on this issue," Konishi said.	ESIA	Eurasianet.org, 2010. Tajikistan: World Bank Offer Energizes Rogun Hydropower Project. 15 Mar.
172	Y	Y	Y		Y		16/03/2010	Nazarbayev visits Uzbekistan. A tendency for KZ-UZ rapprochement is evident from Karimov's backing to Nazarbayev's initiative to convene the OSCE summit under the aegis of Kazakhstan chairmanship in this Organisation. According to Nursultan Nazarbayev, the environmental and anthropogenic security of and regulation of water flows at Rogun HPP in Tajikistan and Kambarata facilities in Kyrgyzstan need be appraised by international experts. "There ought to be no hydroelectric power plants in the region without results of the expertise obtained and studied," he said. The Kazakh leader underlined that ahead of his visit to Uzbekistan he had been in talks with Emomali Rahmon and Kurmanbek Bakiyev. "In principle they are ready for expert evaluation. Islam Karimov and I have come to an agreement we are now announcing - after the expert opinion is ready we are getting down to construction of new facilities".	Talks on water/energy	Vremya Novostei, 2010. Summits, Maneuvres, Jubilees. 26 Mar.
173			Y		Y		19/02/2010	Uzbek newspaper Narodnoye Slovo reiterates need for expert examination of Rogun, stating that "the documentation of the project has become obsolete and the construction needs international examination".	Newspaper article	BBC Monitoring Central Asia Unit, 2010. Uzbek paper reiterates need for expert examination of major Tajik power plant. 19 Feb.

174			Y	Y		23/02/2010	Tajik dam expert says no one has right to stop construction of RogHun plant. "The implementation of the project, which was launched back in Soviet era and which underwent all possible examinations in the Soviet era, is under way. The examination of the project was carried out by best specialists of leading institutes of the [former] Soviet Union," Homidjon Arifov said. "Tajikistan does not need agreement of any country or international organization for the project of the Roghun hydroelectric power station. Nobody has the right to veto this project. The fact that the World Bank is currently conducting an ecological examination of the Roghun project is the goodwill of Tajikistan in case if in future the bank makes a decision to take part in financing the project," the expert said.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2010. Tajik dam expert says no one has right to stop construction of Roghun plant. 24 Feb.
175	Y			Y		01/03/2010	Uzbekistan has unilaterally closed the Qorasuv-Avtodorozhnyy checkpoint [on the border with Kyrgyzstan]. Qorasuv-Avtodorozhnyy is the second biggest and busiest customs checkpoint between Uzbekistan and Kyrgyzstan after the Dostlik checkpoint in the east of Uzbekistan. Human rights activists in Kyrgyzstan connect the closing of the checkpoint with the construction of the Kambarata hydroelectric power station, which the Uzbeks think can lead to a decrease in the volume of water flowing to Uzbekistan.	Border closure	BBC Monitoring Former Soviet Union - Political, 2010. Uzbekistan reportedly closes checkpoint on border with Kyrgyzstan. 4 Mar.
176			Y	Y		18/03/2010	Tajik leader assures Turkmen counterpart energy projects not against neighbours. They signed 7 agreements on cooperation. Speaking about the consumption of water resources in Turkmenistan, the Turkmen leader said the construction of lakes and reservoirs in Turkmenistan would help to protect the environment and use water rationally.	General cooperation agreement	BBC Monitoring Central Asia Unit, 2010. Tajik leader assures Turkmen counterpart energy projects not against neighbours. 18 Mar.

177		Y	Y		Y	Y	31/03/2010	Russian Deputy Prime Minister Sergey Ivanov who is on a visit to Tashkent, has confirmed Russia's unchangeable position towards projects on the construction of major hydroelectric facilities in Central Asia. "Construction of major hydroelectric facilities in Central Asia should be carried out in full agreement with the neighbouring countries," Ivanov said answering questions of journalists about Russia's position towards the construction of the Roghun hydroelectric power station in Tajikistan and Kambar-Ata [hydroelectric power station] in Kyrgyzstan, and about water balance between Tajikistan, Kyrgyzstan and Uzbekistan.	Talks on water/energy	BBC Monitoring Central Asia Unit, 2010. Russian official in Uzbekistan says power plants should be built in agreement. 31 Mar.
178	Y		Y		Y	Y	03/05/2010	Karimov, addressing the opening of the Asian Development Bank's (ADB) board of governors meeting in Tashkent, slammed his neighbours for what he said was a lack of foresight about the environmental impact of their policies. "In Uzbek we say 'where this is no water there is no life'. That's why, indeed, we treat this problem seriously," Karimov said. "Unfortunately, some of our neighbours do not treat this issue like-mindedly, especially the countries on the upstream of the rivers. They do not think about what kind of consequences it may lead to," he added.	Declaration/ Speech	Agence France Presse, 2010. Uzbek leader blasts neighbours in water row. 3 May.
179	Y	Y					18/05/2010	Kyrgyzstan unexpectedly shut off supplies of irrigation water from the Kirov reservoir to Kazakhstan's Zhambyl region.	Resource cut	Russia & CIS Food and Agriculture Weekly, 2010. Kyrgyzstan shuts off irrigation water flow to Kazakhstan. 19 May.
180	Y	Y					19/05/2010	Kazakhstan will reopen its border with Kyrgyzstan on May 20, that it had closed after the April 7-8 developments that resulted in the change of power in Bishkek and the flight that took President Kurmanbek Bakiyev out of Kyrgyzstan. (note: this is most likely linked with KG shutting off water supplies to KZ)	Border opening	Central Asia General Newswire, 2010. Nazarbayev has given instructions to open Kazakhstan's border with Kyrgyzstan on May 20. 19 May.

181	Y	Y					19/05/2010	Kyrgyzstan revived agricultural water supply on Talas River to the south Kazakhstan.	Resumption of resource supply	Trend Daily Economic News, 2010. Kyrgyzstan revive water supply to Kazakhstan. 20 May.
182	Y	Y	Y	Y	Y	Y	08/06/2010	At the Water for life conference in dushanbe Tajik President Emomali Rakhmon's proposed to declare 2012 the International Year of Water Diplomacy. The proposal will be presented to the 65th session of the UN General Assembly in September. He also declared "Wise water management in the basins of trans-border rivers should be organized with respect to just and mutually beneficial use of not only water but also other natural resources." The conference was marked by tensions between Uzbekistan and Tajikistan over the Rogun hydropower project.	Water conference	Central Asia Online, 2010. Rogun dam dominates water conference. 9 Jun.
183			Y	Y			08/06/2010	A meeting between Tajik President Emomali Rahmon and Turkmen deputy chairman of cabinet of ministers in charge of agrarian sector, Myratgeldi Akmammedow, discussed issues of multifaceted cooperation between Tajikistan and Turkmenistan. The meeting also discussed topics of today's conference as well as rational and economical use of regional water and energy resources.	Talks on water/energy	BBC Monitoring Central Asia Unit, 2010. Tajik leader, Turkmen official discuss cooperation. 8 Jun.
184	Y						30/08/2010	KG launched Kambarata-2 \$200 million hydroelectric power station on Monday, its first since the collapse of the Soviet Union. Acting President Roza Otunbayeva pressed a symbolic red button to start the first unit of the Kambarata-2 hydro project. The project, funded partly by Russia, will allow Kyrgyzstan to generate more power but could divert water from its neighbours.	Dam launch	Reuters, 2010. Kyrgyzstan launches new hydroelectric power plant. 30 Aug.

185			Y		Y	09/06/2010	Tajikistan will meet Uzbekistan's all demands so as to complete the construction of the Roghun hydroelectric power plant, [Tajik] Minister of Energy and Industry Sherali Gul has said at the high-level international conference on medium term review of the progress of the implementation of the International Decade for Action "Water for Life" 2005-2015, which is under way in Dushanbe.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2010. Tajikistan to meet Uzbekistan's demands regarding power plant - minister. 10 Jun.
186		Y	Y			11/10/2010	Tajik Prime Minister Oqil Oqilov held a meeting with the Kazakh ambassador to Tajikistan, Abutalip Akhmetov to discuss prospects for further development of multilateral and bilateral mutually beneficial relations. The meeting also discussed issues in such fields as energy and use of water resources, including preparing a draft agreement "On the construction of the 500-kWh Khujand-Datka-Almaty electricity transmission line".	Talks on water/energy	BBC Monitoring Central Asia Unit, 2010. Tajik premier, Kazakh envoy discuss water, energy issues. 12 Oct.
187			Y		Y	12/10/2010	UZ President Karimov said that the Rogun project undermines Uzbekistan's water supplies. "How can we let the residents of Uzbekistan live without water for eight years, while the Rogun water reservoir is being filled up. What will farmers be doing all this time?" Karimov said, when asked why Uzbekistan is opposing the construction of the Rogun HPP in neighboring Tajikistan.	Declaration/ Speech	Interfax Central Asia & Caucasus Business Weekly, 2010. Rogun project undermines Uzbekistan's water supplies - Karimov. 12 Oct.
188			Y		Y	21/10/2010	Tajik Foreign Minister Hamrokhon Zarifi and experts have dismissed Uzbek President Islom Karimov's concerns that the construction of a major hydroelectric power station in Tajikistan will lead to a shortage of irrigation and drinking water in Uzbekistan. "The accusations being levelled at Tajikistan in connection with the construction of the Roghun hydroelectric power station, and the allegations that the water will take eight years to accumulate - during which Uzbekistan will not get water - do not have any scientific or economic basis,".	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2010. Tajik minister, experts flay Uzbek president's statement on hydropower project. 19 Nov.

189			Y		Y		01/11/2010	UZ has unilaterally closed a post on its border with TJ without any explanation, a source in the Tajik Foreign Ministry has told Interfax today.	Border tensions	Ecological movement of Uzbekistan, 2010. International conference «Transboundary ecological problems of Middle Asia: Application of international legislative mechanisms for their solution». 17 Nov.
190			Y		Y		16/11/2010	Uzbekistan organised in Tashkent an international conference under the topic of "Transborder environmental problems of Central Asia: use of international legal mechanisms to resolve them", attended by Over 60 representatives of international organizations and financial institutions from over 30 countries attended the conference. Particularly, it was attended by specialists from the UN, OSCE, World Bank, World Health Organization, and others. The conference noted Rogun negative impact on regional environment.	Water conference	BBC Monitoring Central Asia Unit, 2010. Uzbek conference notes Tajik plant's negative impact on regional environment. 1 Dec.
191	Y		Y				25/11/2010	Kyrgyz Interim President Roza Otunbayeva said that for Kyrgyzstan as well as for Tajikistan it is a "topical" task to reach an agreement in mutually beneficial cooperation in efficient use of water and energy resources in Central Asia and said that Kyrgyzstan is ready for a "constructive" dialogue to resolve this issue for the benefit of peoples in the region.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2010. Kyrgyz president urges closer cooperation in resolving water, energy issues. 25 Nov.
192			Y		Y		01/12/2010	The Uzbek gas distribution company Uztransgaz (Uzbek gas transportation) has warned Tajikistan that it may cut off gas supplies to this country if its debt is not paid. "Tough measures will be taken, right up to a complete cut-off of gas supplies to Tajikistan if the debt is not paid," the letter reads.	Threatening/ Warning	BBC Monitoring Central Asia Unit, 2010. Uzbekistan warns Tajikistan of gas cut-off over arrears. 1 Dec.
193			Y		Y		02/12/2010	State-run Uzbek TV carried a report December 2 that accused Tajik government officials of spreading lies to damage "the friendship between the Uzbek and Tajik peoples." The Tajik people are suffering from the "arbitrariness" of their leaders, the report asserted, though "their gradually escalating tricks cannot damage stability in the Republic of Uzbekistan, or our good relations with the friendly [Tajik] people." Regarding the delays at the border,	Dipl. rel. Cooling	Eurasianet.org, 2010. Uzbekistan vs. Tajikistan: Competition over Water Resources Intensifying. 8 Dec.

							the report added somewhat ominously, "our state borders have always been open to people with good intentions."		
194	Y	Y			Y	07/12/2010	Kyrgyzstan has signed an agreement on the parallel operation of [electric] energy systems with Kazakhstan and Uzbekistan," the press service of the Kyrgyz Energy Ministry has said.	Annual operation agreement	BBC Monitoring Central Asia Unit, 2010. Kyrgyzstan, Kazakhstan, Uzbekistan sign electricity cooperation accord. 7 Dec.
195				Y	Y	05/05/2011	Uzbek-Turkmen cooperation accords signed. The signed documents included an agreement signed between the governments of the two countries on cooperation in science and technology aimed at "expanding cooperation in spheres such as power engineering, agriculture, water management, health care, environment protection and other spheres of mutual interest".	General cooperation agreement	BBC Monitoring Central Asia Unit, 2011. Uzbek-Turkmen cooperation accords signed. 5 May.
196	Y	Y			Y	16/09/2011	KyrgyzGaz Chairman Turgunbek Kulmurzaev told RFE/RL that the agreement -- under which Kyrgyzstan will supply water to southern Kazakhstan in exchange for gas -- was reached on September 16 in Bishkek between Kyrgyz officials and visiting Kazakh Prime Minister Karim Masimov. Bishkek started looking for alternative gas supplies after Uzbekistan raised the price for natural gas deliveries to \$278 per 1,000 cubic meters.	Annual operation agreement	RFE/RL, 2010. Kazakhs To Sell Gas To Kyrgyz After Uzbekistan Raises Price. 20 Sep.
197			Y		Y	16/11/2011	Misterious explosion damaged a bridge in Uzbek territory that caused key rail traffic between Termez in Uzbekistan and the Tajik city of Qurgonteppa to be shut down. The UZ described the incident as a terrorist act. Also: Rather than fix the track, the Uzbeks dismantled it. Tajikistan calls the actions a blockade.	Flow of goods disruption	Radio Free Europe, 2011. Tajik Railways Wants Probe With Uzbeks Of Alleged Terrorist Blast. 21 Nov.

Annex 3. Timeline of the Rogun dam

Key

KG Kyrgyzstan **KZ** Kazakhstan **TJ** Tajikistan **TK** Turkmenistan **UZ** Uzbekistan

EXT Non-Central Asian actor **Y** Involved in the event

	KG	KZ	TJ	TK	UZ	EXT	DATE	DESCRIPTION OF THE EVENT	TYPE OF EVENT	SOURCE
1			Y				30/05/1993	The newly elected President of Tajikistan Emomali Rahmon released an interview to Ostankino Channel 1, in which he declared that despite financial constraints, “the construction of the Rogun hydro-electric station is continuing”.	Declaration/ Speech	BBC Summary of World Broadcasts, 1993. Tajikistan; Interview with President Rahmonov. 1 Jun.
2			Y			Y	18/07/1993	Tajik Premier Abdullojonov says that a draft has been elaborated of an agreement between Russia and Tajikistan concerning the completion of the construction of Rogun hydroelectric power station.	Draft Agreement	BBC Summary of World Broadcasts, 1993. Tajik premier: under CIS treaty everyone should help us defend our borders. 20 Jul.
3			Y			Y	13/04/1994	The Russian-Tajik intergovernmental talks ended on Wednesday [13th April] with [the] signing [of] two agreements: on Russia's participation in completing the construction of the Rogun hydropower station and on granting an R80bn credit by Russia to Tajikistan in 1994.	Agreement	BBC Summary of World Broadcasts, 1994. Russia grants R80bn in credit to Tajikistan. 14 Apr.
4			Y			Y	26/05/1994	According to an official of the Russian Ministry for Cooperation With CIS Member States, a Tajik-Russian joint-stock company is being set up to complete the construction of Tajikistan's Rogun hydroelectric power station.	Establishment of a joint-stock company	BBC Summary of World Broadcasts, 1994. Tajik-Russian joint venture to complete Tajik power plant. 3 Jun.
5			Y			Y	01/07/1994	The World Bank recommends to drop the project on both financial and ecological grounds.	Declaration/ Speech	FT Energy Newsletters, 1995. News: Russia to take half share in Tajik hydro project. 27 Jan.

6			Y			19/10/1994	In his election manifesto, Rahmonov mentions how important it is to attract workers to the construction of Rogun and Sangtudin hydro-power stations.	Declaration/ Speech	BBC Summary of World Broadcasts, 1994. Election manifesto of presidential candidate Imamali Rahmonov. 2 Nov.
7			Y		Y	09/06/1995	Tajikistan and Russia signed an agreement to strengthen economic ties between the two countries. The agreements envisage wide-ranging economic integration in industry, fuel and power, the creation of a customs union and Russian assistance in completing the construction of the Rogun and Sangtuda hydroelectric power stations.	Agreement	BBC Summary of World Broadcasts, 1995. Uzbekistan reinterprets power supply deal with Tajikistan. 2 Jun.
8			Y			19/08/1995	In the Tajik government's economic reform programme for the period 1995-2000, one of the priority tasks of the fuel and power complex is to take measures to complete the construction of the Rogun and Sangtudinskaya hydroelectric power stations and one cascade of the Pamir hydroelectric power stations.	Multiannual planning	BBC Summary of World Broadcasts, 1995. Tajik economic reform programme 1995-2000. 27 Sep.
9			Y		Y	14/01/1998	ITAR-TASS quoted Russian Deputy Prime Minister Valeriy Serov as saying that the two sides (Russia and Tajikistan) had decided to instruct their relevant ministries to start preparing the necessary document and to conduct feasibility studies for energy projects as a whole and particularly for Russia's participation in completing the construction of several hydroelectric plants in the country.	Talks on water/energy	BBC Monitoring Central Asia, 1998. Russian premier satisfied with Tajik visit. 14 Jan.
10			Y		Y	16/04/1999	On April 16, day two of Tajik President Emomali Rakhmonov's visit to Moscow, the parties signed an agreement on the restructuring of Tajikistan's debts to Russia, estimated at \$ 300 million. According to Vremya's information, Moscow and Dushanbe have agreed that \$ 170 million will be written off in return for Tajikistan's stock of 67 billion old Russian rubles	Agreement	Moscow News, 1999. RF troops stay on in Tajikistan. 21 Apr.

							(which were in circulation until 1993). Dushanbe will pay Moscow the remaining \$ 130 million through shares in a number of Tajik enterprises and industrial projects (such as the unfinished Rogun hydroelectric power station), a list of which has been presented to the Russian side. Tajikistan's parliament has already prepared the legislative basis for these joint-stock deals. Only two facilities that Dushanbe regards as strategic - the aluminium plant in Tursun-Zade and the Nurek hydroelectric power station - will remain entirely Tajik state property.			
11			Y			Y	20/12/2000	At the initiative of TJ, the UNGA proclaims the year 2003 as the International Year of Freshwater, (note: under this framework, in 2003 TJ will organise the UN funded "Dushanbe Freshwater Forum"), to raise awareness on issues such as water resources quality and quantity and cooperation in water resources management.	UN resolution	UN Documents, 2000. Resolution adopted by the General Assembly [on the report of the Second Committee (A/55/582/Add.8)] 55/196. International Year of Freshwater.
12			Y			Y	16/01/2002	Japan is likely to participate in the accomplishment of the construction of the Rogun and Sangudin hydroelectric power stations in Tajikistan, special envoy of the Japanese Prime Minister Muneo Suzuki said after the meeting with Tajik President Emomali Rakhmonov on Wednesday.	Declaration/ Speech	Ria Novosti, 2002. Japan is likely to participate in construction of two power stations in Tajikistan. 16 Jan.
13			Y			Y	03/06/2002	During Musharraf's visit to Dushanbe, Pakistan and Tajikistan agreed to set up an intergovernmental commission. Islamabad and Dushanbe also intend to jointly build the Rogun hydropower plant in Tajikistan and a highway connecting Pakistan and Tajikistan through Afghan territory.	Joint statement/declaration	Interfax News Agency, 2002. Pakistani president leaves Dushanbe for Asian summit in Kazakhstan. 3 Jun.
14			Y			Y	29/10/2002	Chairman of the Barki Tojik open joint stock holding company (Tajikistan) Dzhurabek Nurmakhmatov and director general of one of the units of the Russian financial-industrial group Baltic Construction Company Oleg Toni on Tuesday will sign a contract in Dushanbe to build the Rogun hydroelectric station whose construction was	Agreement	Ria Novosti, 2002. Russians to complete construction of Rogun HPP in Tajikistan. 29 Oct.

							interrupted in 1992 due to the objective reasons.			
15			Y			Y	31/05/2003	Talks between TJ deputy PM and Asian Bank officer. They mention Tajik president's initiative to hold an international water forum in Dushanbe this year. The sides also discussed the issue of completion of the construction of hydroelectric power stations.	Talks on water/energy	BBC Summary of World Broadcasts, 2003. Tajikistan: Asian bank ready to take part in joint water supply projects. 31 May.
16			Y			Y	01/09/2003	TJ organizes the UN supported International Water Forum. Countries adopt the Dushanbe Water Appeal, that reiterates the importance of freshwater resources and calls on the United Nations, governments, organizations and stakeholders to commit themselves more fully to achieving the Millennium Development Goals and the targets agreed upon in the Johannesburg Plan of Implementation. The Appeal also invites the United Nations to declare 2005-2015 the International Decade of 'Water for Life.	Water conference	UN Documents, 2003. Dushanbe Water Appeal Included as an Annex to A/58/362.
17			Y			Y	08/10/2004	Tajik President Emomali Rahmonov and Czech President Vaclav Klaus have signed today an agreement on Czech-Tajik cooperation. The Czech Republic will take part for example in the Rogun water power station completion and the GUP Tadzicement Dushanbe cement works reconstruction.	Agreement	BBC Summary of World Broadcasts, 2004. Czech, Tajik presidents sign co-operation agreement. 8 Oct.
18			Y			Y	16/10/2004	Tajik President Emomali Rakhmonov said after a meeting with his Russian counterpart Vladimir Putin in Dushanbe, that in all, the Russian aluminium giant RUSAL will participate in projects worth more than \$1 billion in Tajikistan. Rusal will, for example, receive an as yet unspecified stake in the Rogun hydroelectric project for \$560 million of investment in the Rogun dam's completion.	Talks on water/energy	Interfax News Agency, 2004. RUSAL to help build aluminum smelter in Tajikistan. 21 Oct.
19			Y			Y	31/03/2005	Pakistan and Tajikistan has signed a Memorandum of Understanding (MOU) for sale of electric power to Pakistan and mutually beneficial cooperation in the field of hydro power development in particular high voltage transmission lines. The MOU was	MOU	Balochistan Times, 2005. Pak, Tajikistan ink MOU for sale of electric power to pak. 31 Mar.

								signed after two days meeting of the Federal Minister for Water and Power Liaqat Ali Jatoi with the President, PM and his counterpart of Tajikistan at Dushanbe. Jatoi meanwhile visited a number of hydro-electric projects including Sarband, Sangtuda, Bighazi, Norun and Rogun.		
20	Y	Y	Y	Y	Y	Y	30/05/2005	TJ organised a 3-day "International conference on regional cooperation in transboundary river basins" in Dushanbe on 30 May as part of the Water for Life Decade [2005-15].	Water conference	BBC Monitoring Central Asia Unit, 2005. Tajik president urges action to tackle Central Asia water problems. 31 May.
21			Y			Y	01/06/2005	A session of the Tajik Assembly of Representatives has cancelled an old agreement (1994) between the Russian and Tajik governments to complete the construction of the Rogun hydro-electric power station on the River Vakhsh. Another reason for the cancellation of the agreement was the signing of a new agreement "On long-term cooperation between the Tajik government and RusAl.	Cancellation of an agreement	BBC Monitoring Central Asia Unit, 2005. Tajik-Russian power plant deal cancelled. 1 Jun.
22			Y			Y	19/09/2005	Rahmon announced that construction of Rogun will begin with the involvement of Russian capital in late September. Rahmon stressed again the strategic importance of the unique hydroelectric power station not only for Tajikistan and Russia, but also for the neighbouring countries, specifically Afghanistan.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2005. Russia to start construction of Tajik power plant late September. 19 Sep.
23			Y			Y	27/09/2005	Tajik and Russian workers begin construction works at the Rogun site.	Starting of works	World Markets Analysis, 2005. Construction Kicks Off on 3,600-MW Rogun HPP in Tajikistan. 28 Sep.
24			Y				31/10/2006	Tajikistan could complete the Rogun hydro plant on its own, Tajik President Emomali Rakhmonov said at a conference on the regional electricity market. "Efforts to complete the dam using budgeted money will start in 2007", Rakhmonov said. Rakhmonov said the Rogun plant was currently valued at \$804 million. "It will cost \$2 billion to finish the plant," he said, without specifying whether Russian aluminium producer RUSAL would be involved.	Declaration/ Speech	Central Asia & Caucasus Business Weekly, 2006. Tajikistan could build Rogun hydro on its own – Rakhmonov. 31 Oct.

25			Y		Y	30/01/2007	Russia will finish building the Rogun hydroelectric dam in Tajikistan and considers that only Russia and Tajikistan are capable of handling this huge project, Ramazan Abdulatipov, Russia's ambassador to Tajikistan, told a January 30 press conference in Dushanbe. "The Rogun project is crucial to our partnership, but it has regrettably become a hostage to technical and technological disputes between specialists and experts," Abdulatipov said. "We need to come to terms and start implementing the project. This is what the Russian president and government want and a new inter- governmental agreement on the Rogun plant's construction is being drafted," Abdulatipov said, adding that the agreement should be signed as early as the first half of 2007.	Declaration/ Speech	Russia & CIS Metals and Mining Weekly, 2007. Russian ambassador says Russia to complete hydro plant in Tajikistan. 2 Feb.
26			Y		Y	01/02/2007	Uzbek Prime Minister Writes to his Tajik Colleague on Rogun Hydroelectric Power Station, requiring a detailed examination of the project , accusing TJ of "full ignorance on the part of the Government of the Republic of Tajikistan, which has not viewed possible after-effects and the proper planning and technical support, but yet continues to speedily undertake construction of this facility."	Open Letter	Mirziyoyev, 2007. Uzbek Prime Minister Writes to his Tajik Colleague on Rogun Hydroelectric Power Station. 3 Feb.
27			Y		Y	06/02/2007	Ramazan Abdulatipov, Russia's ambassador to Tajikistan, told at a press conference in Dushanbe that "Russia will finish building the Rogun hydroelectric dam in Tajikistan and considers that only Russia and Tajikistan are capable of handling this huge project".	Declaration/ Speech	Central Asia & Caucasus Business Weekly, 2007. Russia to complete Rogun hydro plant in Tajikistan – ambassador. 6 Feb.
28			Y		Y	28/04/2007	Tajik President Emomali Rakhmonov and Uzbek President Islam Karimov have discussed prospects for bilateral cooperation, as well as hydroelectricity problems, in a telephone conversation, the Tajik presidential press service said on Saturday.	Talks on water/energy	Russia & CIS Presidential Bulletin, 2007. Tajik, Uzbek leaders discuss prospects for cooperation. 28 Apr.
29			Y			29/08/2007	Tajik newspaper complains that current water management does not suit Tajikistan's needs. The articles adds that the country has to build new hydroelectric power stations to improve the situation in terms of energy supplies in the country.	Newspaper article	BBC Monitoring Central Asia Unit, 2007. Tajik paper calls for new mechanism in energy, water use in Central Asia. 29 Aug.

30			Y			Y	29/08/2007	Rahmon announced that Tajikistan has cancelled a deal with the giant Russian aluminium company, RusAl, to build Rogun, after the two sides failed to come to agreement over the height and type of dam to be built.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2007. Backgrounder: Tajikistan cancels giant Russian dam project. 11 Sep.
31			Y			Y	04/10/2007	Russian companies are prepared to take part in completing the construction of the Rogun hydroelectric power plant in Tajikistan, Russian Deputy Prime Minister Sergei Naryshkin said after a meeting with President of Tajikistan Emomali Rakhmon. He said the Rogun plant was "a big and ambitious project, in which Tajikistan and Russia are interested." Russia has already invested in its completion, Naryshkin said.	Declaration/ Speech	Russian Financial Control Monitor, 2007. Russian Companies Ready to Join Construction of Rogun Power Plant. 4 Oct.
32			Y				01/01/2008	Tajikistan allocates fund form the state budget for constructing Rogun. In 2008, 180 million Somoni, and in 2009 - 532 million Somoni in 2010 Rogun spent 650 million Somoni budget. According to the Government's Medium Term Program, in 2013, the Rogun will allocate at least 1.1 billion Somoni, and in 2014 - 1.8 million Somoni.	Multiannual planning	Avesta, 2011. Tajikistan is planning to allocate one billion for the completion of the Rogun. 26 Aug.
33			Y			Y	24/01/2008	A report published on the Uzbek newspaper Pravda Vostoka criticized Tajik hydroelectric power production projects, reminding that the international legal basis for the use of transboundary rivers and water streams should be observed in drawing up and implementing such projects, and also saying that they might cause environmental problems in the region.	Newspaper article	BBC Monitoring Central Asia Unit, 2008. Uzbek expert raps Tajik hydroelectric power station projects. 25 Jan.

34	Y		Y				25/01/2008	Tajik Prime Minister Oqil Oqilov expressed the opinion that it is necessary to boost the construction of the [Kyrgyz] Kambarata power stations. "This winter demonstrated that we should speed up the construction of the Kambarata-1 and Kambarata-2 hydroelectric power stations, whether we want it or not," Oqilov said.	Declaration/ Speech	AKIpress, 2008. Kyrgyz, Tajik premiers discuss electricity supply, transport. 25 Jan.
35			Y			Y	07/03/2008	Ukraine and Tajikistan have signed an action plan for 2008-2009. Ukraine is ready to take part in an international consortium to complete the Rogun Hydroelectric Station, Yushchenko said. "The Ukrainian side today officially announces its participation in the consortium to finish the Rogun Hydroelectric Station," he said. The two turbines operating at the Rogun station were manufactured in Ukraine. "It is reasonable to suppose that the remaining six turbines will be Ukrainian," he said.	Signing of an Action Plan	Russia & CIS Oil and Gas Weekly, 2008. Ukraine, Tajikistan sign two-year action plan. 12 Mar.
36			Y				29/04/2008	Residents of Tajikistan have been asked by the President Rahmon and by Mayor Makhmadsaid Ubaidullayev of the capital, Dushanbe to give up a month's salary to help build the Rogun dam. Tajik authorities' request comes after an unusually cold winter caused widespread electricity shortages and claimed hundreds of victims nationwide. Ubaidullayev has calculated that if all the city's residents give up half their salaries in May and June, more than \$10 million could be raised for the Rogun dam.	Public Appeal	The Associated Press, 2008. Residents of Central Asia's poorest nation asked to donate to major hydroelectric project. 29 Apr.
37		Y	Y				13/05/2008	Kazakhs President Nursultan Nazarbayev indicated that Astana was very interested in investing in Tajik hydro-power projects. "If a consortium will work on the Rogun hydroelectric power station, then Kazakhstan will take part, providing materials, helping with shares, and as investors," Nazarbayev said during a May 13 joint news conference.	Declaration/ Speech	RFE, 2008. Central Asia: Kazakh, Tajik Presidents Show Oil And Water Do Mix. 14 May.
38			Y				30/05/2008	On May 30, Rahmon toured the Rogun construction site, where he announced the establishment of an "international consortium" that would complete the dam and get at least two of its six envisioned units operating within 4 ½ years. The consortium -- which Ramon said was set up with the help of the World	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2008. It is realistic to launch power plant's first unit in four years - Tajik leader. 31 May; Eurasianet.org, 2008. Tajikistan: Government

							Bank, and other unspecified international financial institutions -- would ensure "the right to freely participate in financing for all local and foreign investors." Calling the Rogun project "epoch-making," Rahmon spoke confidently on May 30 that when the dam is completed, it "will not only cover the electricity needs of [our] country, but also that of neighboring states." Also: Rahmon once again called "on all patriots and honoured sons of the motherland to take an active part in the soonest completion of the construction of the first unit of the hydroelectric power station, and, as far as possible, to make their contribution to ensuring the country's energy independence". The country's all state radio and TV channels are today quoting him as saying this.		Harbors Hydro-Power Dreams. 3 Jun.	
39			Y			Y	06/06/2008	Tajik Prime Minister Oqil Oqilov sent a letter to his Russian counterpart, Vladimir Putin, saying that Tajikistan was creating a consortium on the completion of the \$3 billion hydropower station, with the assistance of the World Bank, and that the Central Asian state requested that Russia resume its participation in the project. A source in the Russian Foreign Ministry said that Russian electricity export-import operator Inter RAO UES could take over the Rogun contract, replacing Russia's aluminium giant RusAl.	Open Letter	Ria Novosti, 2008. Tajikistan asks Russia to resume participation in hydro project. 6 Jun.

40			Y		Y	27/06/2008	Tajikistan organized the International Conference on Water Related Nature Disasters Reduction. It was supported by the UN, the World Water Council (WWC) and other international institutes. During the conference, Tajik President Rahmon reiterated his desire to expand Tajikistan's hydro-power capacity and urged the creation of an international consortium to develop Lake Sarez.	Water conference	CAWaterinfo, 2008. International Conference on Water Related Disaster Reduction Dushanbe, Republic of Tajikistan, 27-28 Jun.
41			Y		Y	03/12/2008	Uzbekistan against construction of Tajik power plant on transboundary river. "We think that all decisions on using a watercourse of transboundary rivers, including on building hydro-technical facilities, should not, under no circumstances, damage the environment and infringe the interests of people, who live in the contiguous countries," the paper quoted the acting head of the State Committee for Environment Protection, Boriy Alixonov, as saying at an international environmental forum held in Ashgabat on 3 December.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2008. Uzbekistan against construction of Tajik power plant on transborder river. 16 Dec.
42			Y		Y	06/12/2008	Ukraine and Tajikistan signed a series of documents here Thursday on enhancing bilateral cooperation in areas such as economy, trade, education, culture, agriculture and tourism. "We have agreed that our two countries would give priority to boosting cooperation in hydropower," Yushchenko said. Yushchenko noted that 87 % of the hydroelectric power equipment used in Tajikistan was supplied by Ukraine, and the equipment should be modernized.	Agreement	TendersInfo, 2008. Ukraine : Ukraine, Tajikistan sign documents on bilateral co-op. 6 Dec.

43	Y		Y		Y	Y	23/01/2009	While visiting Uzbekistan, Medvedev stated that "Hydroelectric power stations in the Central Asian region must be built with consideration of the interests of all neighbouring states," adding that, "if there is no common accord of all parties, Russia will refrain from participation in such projects." As a reaction to this, the MFA of Tajikistan had sent a note of protest to the Russian Federation embassy.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajikistan offended by Russian leader's remarks on water use in region – paper. 11 Feb.
44			Y		Y		27/01/2009	"We will build the Roghun hydroelectric power station although somebody will be against it," the deputy Tajik minister of energy and industry Pulod Muhiddinov said.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajikistan to go ahead with construction of power plant – official. 27 Jan.
45			Y			Y	30/01/2009	The government of Tajikistan has sent a protest note to the Russian government over a perceived breach of bilateral trust and agreements. The note refers to the words of Russian president Dmitry Medvedev during a state visit to Uzbekistan on 23 January.	Diplomatic note	Global Insight, 2009. Tajikistan Protests Against Russia's Energy Deals with Uzbekistan. 30 Jan.
46			Y			Y	31/01/2009	Bilateral co-operation talks have raised the possibility of Ukraine participating in the completion of the Rogun project in Tajikistan. Following talks, the leaders of both countries said a priority for them was to boost co-operation in hydro power, and noted that Ukraine had previously supplied much of the equipment to the sector in Tajikistan. They added that further co-operation in the construction of the Rogun project was of interest to Ukraine, and that a deal worth several hundred million US dollars was being considered.	Talks on Rogun	Water Power & Dam Construction, 2009. Ukraine interested in completing Rogun scheme. 31 Jan.
47			Y			Y	02/02/2009	Rahmon has cancelled his visit to Moscow. "There is a big suspicion that the refusal is a response to a speech by Medvedev, who just over a week ago in Tashkent agreed with Uzbekistani President Islam Karimov that issues of constructing hydroelectric power stations should be decided collectively, taking account of the interests of all countries in the region," Daniil Kislov, founder and chief editor of the Fergana.ru news agency, told Gazeta.ru.	Dipl. Cooling rel.	BBC Monitoring Former Soviet Union, 2009. Tajik leader's Moscow visit cancellation shows cooling of relations with Russia. 6 Feb.

48			Y		Y	05/02/2009	Iran intends to participate in completing the construction of the Rogun hydroelectric power station, the Iranian ambassador to Tajikistan, Ali Asghar Sherdust, told journalists last night. The diplomat said that an agreement on this was signed during the Tajik president's meeting with Iranian Minister of Commerce Masud Mir-Kazemi yesterday.	Agreement	BBC Monitoring Central Asia Unit, 2009. Iran to take part in construction of Tajik power plant. 6 Feb.
49			Y		Y	11/02/2009	In a speech to the Foreign Policy Committee of the European Parliament, Tajik President Rahmon -- who is visiting Brussels for the first time and will meet with NATO and energy officials February 11 -- said the completion of the Rogun hydroelectric power station is of "vital importance" for his country.	Declaration/ Speech	RFE, 2009. EU, Tajikistan Move Toward Closer Cooperation. 11 Feb.
50	Y		Y		Y	13/02/2009	At a session of the Cabinet of Ministers on 13 February, Uzbek President Islam Karimov said Uzbekistan did not mind Tajik and Kyrgyz energy projects if independent experts guarantee that the projects would not damage the environment, Uzbek TV reported the same day.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Uzbeks not against Tajik, Kyrgyz energy projects if ecology not harmed – leader. 13 Feb.
51				Y	Y	25/02/2009	Uzbek President Islam Karimov has said water problems in the Central Asian region should not be politicized, and shows good relationship with Turkmen president. Karimov said that projects on the construction of power plants on transboundary rivers in the region must undergo an international examination.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajikistan "on brink of energy collapse" – agency. 10 Feb.

52	Y		Y		Y		14/04/2009	The Uzbek foreign ministry issued a formal statement warning that Rogun and Kambarata projects “pursue commercial interests and far-reaching political objectives, but disregard the possible consequences and ignore the concerns of the neighbouring states”.	Declaration/ Speech	IWPR, 2009. Tashkent Sees Astana as Possible Ally on Water. 18 Apr.
53	Y	Y	Y	Y	Y		15/04/2009	In an annual address to parliament, Rahmon dismissed as “groundless” claims that hydroelectric schemes will reduce water flows and harm the environment. Two days later, Kyrgyzstan’s Kurmanbek Bakiev accused unspecified “other countries” of trying to “gain control over our strategic resources”. Meanwhile, UZ has been busy enlisting the other downstream states, Turkmenistan and Kazakhstan, to support its cause.	Declaration/ Speech	IWPR, 2009. Uzbek Overtures to Kazakstan on Water Dispute. 30 Apr.
54			Y			Y	16/04/2009	At the 5th World Water Forum, Tajik President called upon the international community to assist Central Asian countries in resolving their water problems. One of the ways the president sees to preserve the region's water is to increase the reservoir capacity in Tajikistan and Kyrgyzstan, both countries of the upper reaches, which would contribute to more efficient utilisation of this natural resource across the region and an increase in the production of hydroelectric power.	Declaration/ Speech	Central Asia Online, 2009. Water in Central Asia is a regional security problem. 24 Mar.
55					Y	Y	23/04/2009	UZ evidences WB support before IFAS meeting - The Gov. Newspaper of UZ "Pravda Vostoka" published a letter of WB President Robert Zoellick . The WB would like to clarify that it undertook responsibility to carry out preliminary study, paying a close attention to assessment of potential regional impacts. These studies will determine the technical, economic and financial viability of the proposed project, as well as its potential environmental and social impacts in light of the international	Newspaper article	AKIpress, 2009. World Bank to establish international commission of independents experts to scrutinize construction of hydroelectric power stations - response to President Karimov's letter. 28 Apr.

							agreements on the use of transboundary water resources. In this regard, I have taken into account and share Your concern regarding the delicate ecological balance of the region, and absolute necessity to ensure that the hydropower potential will not lead to a reduction of runoff water volume in states of the lower reaches, as well as the need to consider design of new buildings in seismic zones.		
56	Y	Y	Y	Y	Y	28/04/2009	IFAS Summit in Almaty: the five Central Asian leaders met to discuss water issues related to the Aral Sea. The discussion on the interstate regulation of the Syr Darya and Amu Darya rivers (both flowing into the Aral Sea) between upstream and downstream countries dominated the summit's agenda. It exposed some of the deepest divisions among the region's leaders. Uzbekistan's President Islam Karimov bullied upstream Kyrgyzstan and Tajikistan for their plans to implement more assertive water management policies. Kazakhstan's President Nursultan Nazarbayev, in turn, demonstrated his upper hand by seeking to moderate the discussion, while Turkmenistan's Gurbanguly Berdimuhamedov called on others to seek a regional balance without clarifying how this might be achieved. The summit ended with the signing of an agreement without any specific detail on transnational water management.	Joint statement/declaration	Agence France Presse, 2009. Central Asian water talks boil over into bickering. 28 Apr. ; AKIpress, 2009. President Bakiev hints neighboring countries that Kyrgyzstan needs compensation for water accumulation. 28 Apr.
57	Y		Y		Y	30/04/2009	ALMATY follow-up: TJ paper "Tajikistan" accuses UZ of having created a "Plot hatched to mislead world community". "In fact, Mr Karimov's covert goal of intensifying a dispute over water and electricity in the region, which has been continuing for 17 years, is to attract the attention of the world community to investment projects for the construction of hydroelectric power stations in Tajikistan and Kyrgyzstan. Islam Karimov knows well that every time he plays this card in a specific manner, the issue of foreign investment in the hydroelectric power stations in the region will be postponed for a certain time. This is because Tashkent's hue and cry has made international donor organizations to act cautiously. Seeing and knowing	Newspaper article	BBC Monitoring Central Asia Unit, 2009. Tajik paper claims Uzbekistan to blame for demise of Aral Sea. 18 May.

								this, Karimov is skilfully using this card.		
58			Y		Y	Y	30/05/2009	Tajik President Rahmon speaks about Rogun with participants in a session of the regional political dialogue between the EU troika and the Central Asian countries at the level of foreign ministers. "We adhere to the principled line which is based on the need to maintain balance of both national and regional interests. In this connection I would like to stress two important points. First, the hydro energy sector is not water consuming and it does not consume water without return. It just lets water through turbines of the hydroelectric power station. Unlike the hydro energy sector, irrigated farming takes the river flow without return, and even if returns, it returns part of water as a drained water of very bad quality. I have repeatedly said from various rostrums that none of Tajikistan's projects in this sector [energy sector] will not be aimed against our neighbours," Emomali Rahmon said.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. None of Tajik energy projects aimed against neighbours - leader. 1 Jun.
59			Y		Y		15/06/2009	If the construction of hydroelectric power stations has turned into a national idea for Tajikistan, then for Uzbekistan such idea is the issue of water usage because over 60 % of the Uzbek population live in rural areas, the assistant of the Uzbek ambassador to Tajikistan, Yuriy Nagay, told Asia-Plus. We need to listen to each other attentively and come to agreement," the assistant of the Uzbek diplomat convinced.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajikistan, Uzbekistan should seek compromise on water row - Uzbek diplomat. 16 Jun.
60			Y			Y	07/09/2009	Tajikistan is offering to the countries of Central Asia to take part in the construction of new hydroelectric power plants in the republic for their needs. This proposal was made by Tajik President Emomali Rahmon at the World Climate Conference-3 in Geneva.	Declaration/ Speech	Russia & CIS Presidential Bulletin, 2009. Tajikistan offers its hydropower resources to central Asia. 7 Sep.

61			Y		Y	20/10/2009	UKR company Electrotyazhmash signed a memorandum of intent and an agreement with Barki Tojik on cooperation in the construction and upgrade of hydro power plants, in particular concerning the Rogun hydro power plant.	Agreement	Interfax News Agency, 2009. Electrotyazhmash starts talks on creation of jv in Tajikistan. 8 Dec.
62			Y		Y	21/10/2009	The former head of Barqi Tojik, Sharifkhon Samiyev, blames Uzbekistan for energy problems. "I think that energy issues between Tajikistan and Uzbekistan have long acquired a political and not economic nature." [Reporter Ramziddin Najmiddinov:] Everybody in Tajikistan believes that after construction of the Rogun hydroelectric power station and commissioning of the South-North and Tajikistan-Afghanistan power transmission lines, many energy problems in the country will be resolved. [Sharifkhon Samiyev:] I also believe in this. But one should look at things realistically. The issue of constructing Rogun is not resolved in one or two years. At the same time, Tajikistan's demand in electricity is growing every day."	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajik official blames Uzbekistan for energy problems. 7 Nov.
63			Y		Y	24/11/2009	Uzbek Ambassador to Tajikistan Shoqosim Shoislomov said in Dushanbe that Uzbekistan will end its participation in the Soviet-era electric power grid as of December 1. He said Uzbekistan has built a new power distribution system that can provide all of its regions with electricity and does not need the outdated electricity grid. Homidjon Orifov, the head of Tajikistan's National Committee for Dams, said Uzbekistan's move is most likely connected to the Tajik-Uzbek standoff regarding the construction of a new hydropower station near the Tajik city of Rogun.	Withdrawal from a regional org.	RFE, 2009. Tajikistan Reacts To Uzbek Decision To Quit Power Grid. 27 Nov.
64			Y		Y	25/11/2009	Husrav Goibov, deputy head of the CIS department at the Tajik Foreign Ministry, says that "The unilateral decision made by Uzbekistan to leave the Central Asian Unified Energy System runs counter	Declaration/ Speech	Interfax News Agency, 2009. Uzbekistan's withdrawal from central Asian power grid. 25 Nov.

							to the principles of neighbourliness and is politically motivated"		
65			Y		Y	01/12/2009	UZ withdraws from Central Asian power grid. Uzbek officials say Tashkent's participation in the regional system endangers the flow of electricity to its domestic consumers. If UZ does not quickly reverse its decision, some Tajiks suggest Dushanbe will retaliate by restricting water supplies that Tashkent desperately needs to keep the country's cotton sector afloat during the spring and summer.	Withdrawal from a regional org.	BBC Monitoring Central Asia Unit, 2009. Uzbekistan withdraws from Central Asian power grid from 1 December. 1 Dec; RFE, 2009. Uzbekistan Withdrawing From Regional Power Grid. 1 Dec.
66			Y			01/12/2009	President Rakhmon urges Tajik families to buy Rogun HPP shares. "Some \$600 million is currently needed to launch the first phase of the Roguna HPP, and for this purpose each family in the country, except for the poor ones, should spend at least 3,000 somoni (4.353 somoni/\$1)	Declaration/ Speech	Central Asia General Newswire, 2009. President Rakhmon urges Tajik families to buy Roguna HPP shares. 2 Dec.
67			Y		Y	01/01/2010	Since January, Tashkent has delayed thousands of rail carriages, citing "technical and logistical" issues. Dushanbe says Tashkent is trying to sabotage construction of a giant hydroelectric power plant, Rogun.	Border tensions	Eurasianet.org, 2010. Boxcar Diplomacy Puts Tajik Businesses At Tashkent's Mercy. 6 Aug.
68			Y			05/01/2010	In his official address to Tajik citizens, President Rahmon announced that 2010 will be the year "when great resources will be mobilized" to construct the 3,600 mw Rogun dam. "The construction of this site, important for our country, has turned into the arena of labour, bravery and generosity, trials of heroism, and, more so, our national idea," said Rahmon.	Declaration/ Speech	Rahmon, E., 2010. Message from the president of the republic of Tajikistan to the people of Tajikistan. 5 Jan.

69			Y	Y		03/02/2010	In a letter to his Tajik counterpart Akil Akilov, which appeared in the media before reaching the addressee, Uzbek Prime Minister Shavkat Mirziyoev called on Tajikistan to reconsider the construction of Rogun in order to prevent environmental dangers, maintain water balance, and provide continuing access to water for millions of people. He also stated "it is necessary to make an independent evaluation of the project before resuming the construction of the Rogun hydropower plant. The project was elaborated about 40 years ago and based on obsolete technologies".	Open Letter	Global Insight, 2010. Uzbekistan Calls for Independent Assessment of Hydropower Project in Tajikistan. 4 Feb.
70			Y	Y		07/02/2010	Akilov sent an open letter to Mirziyoyev posted by the Khovar news agency. He emphasized the country's sovereign right to build the dam to rectify energy deficits, which have plagued the country for years now but "have been impossible to cover by energy imports because of ongoing man-made obstacles." He also referred to the project's compliance with international law and the 2006 assessment by the German Lahmeyer corporation. The latter allegedly confirmed that the project takes ecological issues into consideration, something Uzbekistan seriously questions.	Open Letter	Central Asia General Newswire, 2010. Tajik premier again affirms absence of Rogun HPP threat to Uzbekistan. 8 Feb.
71			Y	Y		08/02/2010	The reaction of Uzbek side on Akilov's letter has been to cut gas supplies to TJ. "Since Sunday, Uzbekistan has cut in half -- from 28,000 cubic metres of natural gas per hour to 15,000 cubic metres -- gas to Tajikistan," a company spokesman told AFP.	Resource cut	Agence France Presse, 2010. Uzbekistan cuts energy to Tajikistan amid tensions: company. 8 Feb.
72			Y		Y	10/03/2010	The World Bank announced that they will underwrite an environmental feasibility study for the proposed Rogun hydropower project. "If the Rogun project proves its financial and environmental sustainability, the World Bank will provide the financial aid and support to the government of Tajikistan for the establishment of a consortium that	ESIA	Eurasianet.org, 2010. Tajikistan: World Bank Offer Energizes Rogun Hydropower Project. 15 Mar.

							will build this plant. The Tajik government and the World Bank will sign an appropriate memorandum on this issue," Konishi said.		
73			Y		Y	15/03/2010	The Asian Development Bank (ADB) strongly supports Rogun. President Emomali Rahmon met with Juan Miranda, ADB director general for Central and Western Asia. ADB expressed its readiness to help with assessments. Juan Miranda said "the Asian Develop Bank welcomes Tajikistan's energy policy and that the Rogun power plant construction plays a key role in it; and in the future the bank will make it a priority to support projects in this field within its cooperation with Tajikistan"	Talks on Rogun	Global Insight, 2002. Uzbekistan Calls for Independent Assessment of Hydropower Project in Tajikistan. 4 Feb.
74	Y	Y	Y		Y	16/03/2010	Nazarbayev visits Uzbekistan. A tendency for KZ-UZ rapprochement is evident from Karimov's backing to Nazarbayev's initiative to convene the OSCE summit under the aegis of Kazakhstan chairmanship in this Organisation. According to Nursultan Nazarbayev, the environmental and anthropogenic security of and regulation of water flows at Rogun HPP in Tajikistan and Kambarata facilities in Kyrgyzstan need be appraised by international experts. "There ought to be no hydroelectric power plants in the region without results of the expertise obtained and studied," he said. The Kazakh leader underlined that ahead of his visit to Uzbekistan he had been in talks with Emomali Rahmon and Kurmanbek Bakiyev. "In principle they are ready for expert evaluation. Islam Karimov and I have come to an agreement we are now announcing - after the expert opinion is ready we are getting down to construction of new facilities".	Talks on water/energy	Eurasianet.org, 2010. Tajikistan: World Bank Offer Energizes Rogun Hydropower Project. 15 Mar.
75			Y		Y	19/02/2010	Uzbek newspaper Narodnoye Slovo reiterates need for expert examination of Rogun, stating that "the documentation of the project has become obsolete and the construction needs international examination".	Newspaper article	BBC Monitoring Central Asia Unit, 2010. Uzbek paper reiterates need for expert examination of major Tajik power plant. 19 Feb.
76			Y		Y	23/02/2010	Tajik dam expert says no one has right to stop construction of Rogun plant. "The implementation of	Declaration/ Speech	CIS DEFENSE and SECURITY, 2010. Summits,

							the project, which was launched back in Soviet era and which underwent all possible examinations in the Soviet era, is under way. The examination of the project was carried out by best specialists of leading institutes of the [former] Soviet Union," Homidjon Arifov said. "Tajikistan does not need agreement of any country or international organization for the project of the Rogun hydroelectric power station. Nobody has the right to veto this project. The fact that the World Bank is currently conducting an ecological examination of the Rogun project is the goodwill of Tajikistan in case if in future the bank makes a decision to take part in financing the project," the expert said.		maneuvers, jubilees. 29 Mar.	
77			Y	Y		18/03/2010	Tajik leader assures Turkmen counterpart energy projects not against neighbours. They signed 7 agreements on cooperation. Speaking about the consumption of water resources in Turkmenistan, the Turkmen leader said the construction of lakes and reservoirs in Turkmenistan would help to protect the environment and use water rationally.	General cooperation agreement	BBC Monitoring Central Asia Unit, 2010. Tajik leader assures Turkmen counterpart energy projects not against neighbours. 18 Mar.	
78	Y		Y		Y	Y	31/03/2010	Russian Deputy Prime Minister Sergey Ivanov who is on a visit to Tashkent, has confirmed Russia's unchangeable position towards projects on the construction of major hydroelectric facilities in Central Asia. "Construction of major hydroelectric facilities in Central Asia should be carried out in full agreement with the neighbouring countries," Ivanov said answering questions of journalists about Russia's position towards the construction of the Roghun hydroelectric power station in Tajikistan and Kambar-Ata [hydroelectric power station] in Kyrgyzstan, and about water balance between Tajikistan, Kyrgyzstan and Uzbekistan.	Talks on water/energy	BBC Monitoring Central Asia Unit, 2010. Tajik dam expert says no one has right to stop construction of Roghun plant. 24 Feb.

79	Y		Y		Y	Y	03/05/2010	Karimov, addressing the opening of the Asian Development Bank's (ADB) board of governors meeting in Tashkent, slammed his neighbours for what he said was a lack of foresight about the environmental impact of their policies. "In Uzbek we say 'where this is no water there is no life'. That's why, indeed, we treat this problem seriously," Karimov said. "Unfortunately, some of our neighbours do not treat this issue like-mindedly, especially the countries on the upstream of the rivers. They do not think about what kind of consequences it may lead to," he added.	Declaration/ Speech	Agence France Presse – English, 2010. Uzbek leader blasts neighbours in water row. 3 May.
80			Y		Y		09/06/2010	Tajikistan will meet Uzbekistan's all demands so as to complete the construction of the Roghun hydroelectric power plant, [Tajik] Minister of Energy and Industry Sherali Gul has said at the high-level international conference on medium term review of the progress of the implementation of the International Decade for Action "Water for Life" 2005-2015, which is under way in Dushanbe.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2010. Tajikistan to meet Uzbekistan's demands regarding power plant – minister. 10 Jun.
81			Y		Y	Y	07/10/2010	The Ecological Movement of Uzbekistan sent an appeal to the World Bank demanding to inspect the project of the Rogun hydro power plant. The appeal read, "The Rogun Project was developed 40 years ago and does not meet modern realities. [...] In our opinion, the World Bank is making a one-sided evaluation of the tender procedures for environmental assessment of construction of hydroelectric power station, and do not take into account the interests of all parties, including those countries which are located in the downstream of Amudarya river".	Open Letter	UzDaily, 2011. Ecological Movement of Uzbekistan sends letter to Europarliament. 21 Jun.
82			Y		Y		12/10/2010	When asked why Uzbekistan is opposing the construction of Rogun, he stated "How can we let the residents of Uzbekistan live without water for eight years, while the Rogun water reservoir is being filled up? What will farmers be doing all this time?"	Declaration/ Speech	Interfax Central Asia & Caucasus Business Weekly, 2010. Rogun project undermines Uzbekistan's water supplies – Karimov. 12 Oct.

83			Y		Y		18/10/2010	The Ecological Movement of Uzbekistan publishes a report on negative effects of "Transboundary impact of the polluting substances emitted by the State Unitary Enterprise «Tajik aluminium company"(TALCO)"(the former Tajik aluminium factory) on population and environment of various areas of the Surkhan-Darya Region"	Report Publishing	The Ecological Movement of Uzbekistan, 2010. Letter to the Executive Secretary, The Inspection Panel P.O. Box 27566 Washington, D.C. 20038. 7 Oct.
84			Y		Y		21/10/2010	Tajik Foreign Minister Hamrokhon Zarifi and experts have dismissed Uzbek President Islam Karimov's concerns that the construction of a major hydroelectric power station in Tajikistan will lead to a shortage of irrigation and drinking water in Uzbekistan. "The accusations being levelled at Tajikistan in connection with the construction of the Rogun hydroelectric power station, and the allegations that the water will take eight years to accumulate - during which Uzbekistan will not get water - do not have any scientific or economic basis,".	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2010. Tajik minister, experts flay Uzbek president's statement on hydropower project. 19 Nov.
85	Y		Y		Y		22/11/2010	Viktor Chub, head of the meteorology centre of Uzbekistan (Uzgidromet), believes that the construction of the Rogun hydroelectric power station (Tajikistan) and its launch in the planned operation mode will significantly influence the flow of Amu Darya. A similar situation will be observed with regard to the water flow in Syr Darya [river] after the Kambarata 2 hydroelectric power station and the Toktogul reservoir (Kyrgyzstan) switch to power generation mode.	Newspaper article	BBC Monitoring Central Asia Unit, 2010. Uzbek expert against new hydro-energy projects in region. 23 Nov.
86			Y		Y		01/11/2010	UZ has unilaterally closed a post on its border with TJ without any explanation, a source in the Tajik Foreign Ministry has told Interfax today.	Border tensions	BBC Monitoring Central Asia Unit, 2010. Uzbekistan closes post on border with Tajikistan – agency. 1 Nov.

87			Y	Y		16/11/2010	Uzbekistan organised in Tashkent an international conference under the topic of “Transborder environmental problems of Central Asia: use of international legal mechanisms to resolve them”, attended by Over 60 representatives of international organizations and financial institutions from over 30 countries attended the conference. Particularly, it was attended by specialists from the UN, OSCE, World Bank, World Health Organization, and others. The conference noted Rogun negative impact on regional environment.	Water conference	BBC Monitoring Central Asia Unit, 2010. Uzbek conference notes Tajik plant's negative impact on regional environment. 1 Dec.
88			Y	Y	Y	22/11/2010	The World Bank replied to the request made by the Ecological Movement of Uzbekistan stating that "Management considers that this Request for Inspection should be ineligible for the following reasons: i) the issues raised by the Requesters focus on potential harm that could derive from the construction, operation and/or failure of the proposed Rogun HPP, but not from the Assessment Studies that the Bank intends to finance; and ii) Management has no record of the Requesters' attempt to raise their issues with it prior to the submission of the Request for Inspection".	Open Letter	The Inspection Panel, 2010. Report and Recommendation On Request for Inspection TAJIKISTAN: Energy Loss Reduction Project (Rogun HPP) (Credits Nos. 40930-TJ and H1780-TJ).
89			Y	Y		02/12/2010	State-run Uzbek TV carried a report December 2 that accused Tajik government officials of spreading lies to damage “the friendship between the Uzbek and Tajik peoples.” The Tajik people are suffering from the “arbitrariness” of their leaders, the report asserted, though “their gradually escalating tricks cannot damage stability in the Republic of Uzbekistan, or our good relations with the friendly [Tajik] people.” Regarding the delays at the border, the report added somewhat ominously, “our state borders have always been open to people with good intentions.”	TV Report	Eurasianet.org, 2010. Uzbekistan vs. Tajikistan: Competition over Water Resources Intensifying. 8 Dec.
90			Y	Y	Y	18/01/2011	An Uzbek diplomat previously briefed EUobserver that Tashkent wants EU help to stop neighbouring Tajikistan from completing the Rogun Dam on the Vakhsh River. He said the dam has the potential to cause a large-scale humanitarian disaster if it ever burst, flooding vast swathes of land in Uzbekistan and pushing refugees to the EU.	Declaration/ Speech	EUobserver.com, 2011. Uzbek massacre hangs over Barroso-Karimov meeting. 18 Jan.

91			Y			Y	19/01/2011	Tajikistan to help Pakistan counter its energy crisis with cooperation on hydroelectric sector. TJ Ambassador also said "I merely want to note, that some neighboring countries of Tajikistan continue to obstruct, even up to imposing a blockade of all roads and the delivery of goods, including railway transit", he said.	Talks on water/energy	Right Vision News, 2011. Pakistan: Tajikistan to help Pakistan counter its energy crisis: Ambassador. 19 Jan.
92			Y			Y	08/03/2011	Rahmon and Pakistani President Asif Ali Zardari signed a number of agreements as officials held wide-ranging talks on co-operation in agriculture, health and sports and physical training in Islamabad March 7-8, officials and business leaders said. They also signed a joint statement before Rahmon travelled to Karachi for more meetings. Pakistan expressed its readiness to help finance construction of Tajikistan's Rogun hydroelectric power plant.	Talks on water/energy - Agreements	Central Asia Online, 2011. Pakistan, Tajikistan pledge to combat terror. 9 Mar.
93		Y	Y	Y	Y	Y	15/03/2011	Uzbekistan opposes Pakistan's plan to import electricity from Tajikistan. Arif Karimov met senior officials of the ministry of water and power last week and handed over his government's `letter of disapproval` for the proposed project. He is reported to have said that all the low riparian states - not only Uzbekistan but Kazakhstan and Turkmenistan too - were opposed to the project because a mandatory Trans-boundary Environmental Impact Assessment (TEIA) report for the development of Rogun Hydropower project had not been shared by Tajikistan for clearance	Talks on water/energy	AKIpress, 2011. Uzbekistan opposes Pakistan's plan to import electricity from Tajikistan. 15 Mar.
94			Y			Y	08/06/2011	Rahmon asked EU to reconcile Central Asian countries. The European Union could help the Central Asian countries in searching for a compromise over the region's water and energy issues, Tajik President Emomali Rahmon told the European Parliament on Tuesday in France where he is on a formal visit. "None of our hydropower structures will ever work in someone's detriment, and if you look at the problem from a selfless and fair point of view, it will become obvious: it will only benefit all the countries and the region as a	Declaration/ Speech	Russia & CIS Military Newswire, 2011. Tajikistan asks EU to reconcile C. Asian countries. 8 Jun.

							whole,"			
95			Y		Y	Y	21/06/2011	The Ecological Movement of Uzbekistan sent a letter to the President of the European Parliament Jerzy Buzek. "We have been induced to address you with this letter because of the ambiguous statements of the Member of the European Parliament Mr. Stevenson regarding the construction of the Rogun hydroelectric power station (HPS) in Tajikistan," the letter said. "On behalf of European Parliament he repeatedly acted through Tajik's Mass Media in favour of implementation of this rather disputable hydropower project in the riverhead of Amu-Darya," it added.	Open Letter	UzDaily, 2011. Ecological Movement of Uzbekistan sends letter to Europarliament. 21 Jun.
96			Y			Y	10/09/2011	Tajik Defense Minister General Sherali Khairulloyev said that "Today, if necessary, the Islamic Republic of Iran's Armed Forces can reach Tajikistan in two hours, and if a military presence of the Tajik side in the similar plans and programs of the Islamic Republic is necessary, the representative units of Tajikistan's Armed Forces are also ready to travel to Iran," Khairulloyev said on Saturday.	Declaration/ Speech	FARS News Agency, 2011. Tajik DM Underscores Expansion of Military Cooperation with Iran. 10 Sep.
97			Y		Y		16/11/2011	Mysterious explosion damaged a bridge in Uzbek territory that caused key rail traffic between Termez in Uzbekistan and the Tajik city of Qurgonteppa to be shut down. The UZ described the incident as a terrorist act. Also: Rather than fix the track, the Uzbeks dismantled it. Tajikistan calls the actions a blockade.	Flow of goods disruption	Radio Free Europe, 2011. Tajik Railways Wants Probe With Uzbeks Of Alleged Terrorist Blast. 21 Nov.

Annex 4. Timeline of the Kambarata dam

Key

KG Kyrgyzstan **KZ** Kazakhstan **TJ** Tajikistan **TK** Turkmenistan **UZ** Uzbekistan

EXT Non-Central Asian actor **Y** Involved in the event

	KG	KZ	TJ	TK	UZ	EXT	DATE	DESCRIPTION OF THE EVENT	TYPE OF EVENT	SOURCE
1	Y					Y	19/10/1992	The Kyrgyz government is in talks with General Electric to build a hydro dam on the Naryn River, near the Chinese border. Preliminary agreement had been reached with GE on a complex of dams at Kambarata, costing dollars US\$ 100 million.	Talks on commercial cooperation	FT Energy Newsletters, 1992. News: Russian Far East. 19 Oct.
2	Y						04/02/1994	Work at Tash-Kumyr and Kambarata hydroelectric power stations has come to a standstill "due to a lack of money" . Workers there were paid only twice in 1993.	Interruption of works	BBC Summary of World Broadcasts, 1994. Kyrgyzstan's Tash-Kumyr and Kambaratin power stations at a standstill. 4 Feb.
3	Y						01/12/1997	The Kyrgyz Prime Minister, Apas Dzhumagulov, has signed a resolution authorising tenders for investing in the construction of hydro power stations. The aim is to accelerate the construction of the Kambarata 2 plant in Naryn Region and the completion of the Tash-Kumyr and the Shamaldy Say stations in the Dzhahalal-Abad Region.	Resolution	FT Energy Newsletters, 1997. Commission established for Kyrgyz tenders. 1 Dec.
4	Y						01/04/1999	Deputies in the upper house of Kyrgyzstan's parliament have adopted a draft programme for restructuring and privatising the national energy company Kyrgyzenergo. Two hydroelectric power stations, Kambarata GES-1 and GES-2, which are being constructed on the Naryn river, as well as some small hydroelectric plants will be transferred for concession.	Resolution	FT Energy Newsletters, 1999. Kyrgyz parliament votes to privatise. 1 Apr.

5	Y	Y				21/11/2000	Kazakh Prime Minister Kasymzhomart Tokayev expressed serious concern about the plans to build the Kambarata hydroelectric station in Kyrgyzstan with Kazakh funds and proposed that the project should be "blocked in every way". He thinks that it will lead to water being drawn away from the Toktogul hydroelectric station, which would have an adverse effect on water supplies in Kazakhstan.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2000. Kazakh government discusses water supplies to southern Regions. 22 Nov.
6	Y	Y	Y		Y	01/04/2003	The four central Asian states of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan are to collaborate for the construction of the Kambarata hydroelectric power plant in Kyrgyzstan. According to preliminary estimates, the construction of the first Kambarata hydroelectric power plant is expected to cost US\$1.7B, and the second is estimated at approximately US\$230M. It is expected that Central Asian states, Russia and the World Bank will provide funding for the projects.	Talks on water/energy	Water Power & Dam Construction, 2003. Central Asian states to participate in hydro. 30 Apr.
7	Y	Y	Y		Y	13/05/2004	Foreign Minister of the Kyrgyz Republic Askar Aytmatov in an interview with the Kyrgyz AKIpress on 13 May 2004 commented on the country's position regarding some issues relating to Kyrgyz-Kazakh economic cooperation. "Moreover, currently an issue of the creation of an international water and energy consortium is being considered within the framework of CACO Central Asian Cooperation Organization. It is expected that an investment policy will be conducted within the framework of this consortium, which is aimed at the construction of new hydroelectric power stations - Kambarata-1 and Kambarata-2 south-western Kyrgyzstan	Talks on water/energy	BBC Summary of World Broadcasts, 2004. Kyrgyzstan to develop cooperation with "fraternal" Kazakhstan – minister. 13 May.
8	Y				Y	19/11/2004	Kyrgyz President Askar Akaev visits Russia. An agreement was reached in accordance with which Kyrgyzstan would order equipment for electric power stations from St Petersburg enterprises worth 1bn US dollars. The Russian side confirmed its intention to invest 1.5bn US dollars in building the Kambarata hydroelectric power station. The Russian budget for 2005 includes R100m for designing a feasibility study for the project. If the plan follows its initial programme then the construction of two hydroelectric power stations will	Agreement	BBC Summary of World Broadcasts, 2004. Kyrgyz paper says recent breakthrough made in ties with Russia. 24 Nov.

							be started in 2005.		
9	Y				Y	19/04/2005	Kyrgyz acting Foreign Minister Roza Otunbayeva declared that all earlier-agreed projects with Russian Aluminium company remain in force. Projects for the construction of the Kambarata hydropower plant and an aluminium works are of great significance for our country," Otunbayeva said. "These projects should be realized in the coming years," she said.	Declaration/ Speech	Interfax News Agency, 2005. Bishkek backs equal conditions for foreign investors. 19 Apr.
10	Y				Y	11/05/2005	Acting president of the Kirghiz Republic, Kurmanbek Bakiyev, declared in an interview that he had a meeting with Oleg Deripaska of RusAl, who has shown interest in the construction of aluminium works in our country. He is also interested in the power energy sector, the construction of the Kambarata hydroelectric power plant, Kambarata-1 and Kambarata-2. This will require ample investment, more than \$2 billion.	Declaration/ Speech	Official Kremlin Int'l News Broadcast, 2005. Radio interview with Kyrgyzstan's acting president and prime-minister Kurmanbek Bakiyev. 11 May.
11	Y				Y	08/08/2006	Kyrgyzstan's OAO Power Plants and China's state grid company signed an agreement on long-term cooperation which envisions the construction and modernization of several power plants in Kyrgyzstan with the help of China, including the Uchkurgan Hydroelectric Plant and the Sarydzhas and Kambarata hydroelectric plants.	Agreement	Central Asia & Caucasus Business Weekly, 2006. Kyrgyzstan, China expand energy cooperation. 8 Aug.
12	Y				Y	22/09/2006	Kyrgyz authorities provided 62 business projects for the review of Kazakhstani investors: including construction projects of two Kambarata hydro power plants worth over US\$ 2 billion Kyrgyz first prime minister Daniar Usenov highlighted the project of Kambarata hydro power plants as a priority interest for the Kazakhstani side.	Talks on commercial cooperation	Kazakhstan General Newswire, 2006. Kyrgyz authorities complain of Kazakh businessmen's passive attitude; Astana demands to spare its investors undue government pressure. 22 Sep.

13	Y				Y	15/12/2006	Kyrgyzstan and Russia are launching a major energy-generating project to build the Kambarata-1 and Kambarata-2 hydroelectric cascades in the Central Asian state, to be operated by Russian electricity monopoly Unified Energy System (UES), and designed to produce electricity for domestic needs and exports to Pakistan, Afghanistan and northern China.	Joint statement/declaration	RIA Novosti, 2006. Russia, Kyrgyzstan embark on multi-billion dollar energy project. 15 Dec.
14	Y				Y	26/02/2007	Key Russian and Kyrgyz officials have agreed to partially write off and restructure Kyrgyzstan's debt to Russia of US\$286 million. Kyrgyzstan also offered Russia the chance to partake in the construction of two hydro power stations in Kambarata.	Talks on commercial cooperation	Global Insight, 2007. Russia Promises Restructuring of Kyrgyzstan's Debt. 26 Feb.
15	Y	Y			Y	15/03/2007	The Kyrgyz government intends to set up a joint venture with Kazakhstan and Russia to build two Kambarata hydroelectric power stations. Kyrgyzstan will own 34 % of the shares in the joint venture, and Russia and Kazakhstan 33 % each, First Deputy Prime Minister Daniyar Usenov said that according to preliminary estimates, about 2bn dollars were needed to build the two hydroelectric power stations, of which 1.7bn dollars would be spent on Kambarata 1 and 300m dollars on Kambarata 2. Kyrgyzstan has already invested a little more than US\$ 150 million into building the Kambarata 2 hydroelectric power station. In principle, Kazakhstan and Russia also must invest 150m dollars each. "The Kambarata projects have been included in a state economic development programme. The work on setting up the joint venture must be completed this year," Usenov said.	Talks on commercial cooperation	BBC Monitoring Central Asia Unit, 2007. Kazakhstan, Russia to build hydroelectric power stations in Kyrgyzstan. 15 Mar.
16	Y	Y				30/04/2007	As an outcome of Nazarbayev's visit to Kyrgyzstan, a joint venture involving state-owned companies from Kazakhstan, Kyrgyzstan and Russia is established. The new venture is expected to finish construction on two hydroelectric power stations located on the Naryn River, Kambarata 1 and Kambarata 2.	Establishment of a joint-venture	Eurasianet.org, 2007. Nazarbayev Flexes Diplomatic Muscle During Visit to Kyrgyzstan. 30 Apr.

17	Y					15/06/2007	The Kyrgyz Parliament has rejected a bill that lifts a ban on selling the country's Kambarata-1 and Kambarata-2 hydroelectric power plants to private owners.	Resolution	Central Asia General Newswire, 2007. Parliament refuses to allow privatization of Kambarata power plants. 15 Jun.
18	Y	Y				09/07/2007	Kazakhstan annulled Kyrgyzstan's debt for the usage of railways and spread the national tariffs onto the country, and contributed US\$100 million to a US\$120 million joint investment fund to be created. Kazakh delegation also announced its intention to bid in the tender for the Kambarata stations.	Talks on commercial cooperation	Global Insight, 2007. Kazakhstan Outmanoeuvres Russia Over Investment in Kyrgyzstan. 13 Jul.
19	Y				Y	16/07/2007	Representatives of Alcoa have arrived in Kyrgyzstan to study prospects for building an aluminium producing plant in the Jalal-Abad region and Alcoa's participation in the construction of the Kambarata hydroelectric power plants, the Kyrgyz Ministry of Industry, Energy and Fuel Resources said in a statement.	Talks on water/energy	Central Asia General Newswire, 2007. Alcoa, Kyrgyzstan consider building new aluminum plant. 16 Jul.
20	Y				Y	18/09/2007	Bakiyev expressed his wish to hold in Bishkek an international water and energy summit under the aegis of the European Union, and to set up in Kyrgyzstan an international water management academy, which could train highly skilled specialists in this field.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2007. Kyrgyz paper says sides agreed on disputed areas at talks with Tajik leader. 21 Sep.
21	Y				Y	19/11/2007	South-Korean company KEPCO has expressed interest in taking part in the construction of Kambarata Hydropower Plant-1 and -2.	Talks on commercial cooperation	Central Asia General Newswire, 2007. Kyrgyzstan to raise \$1.5 bln in private investments from South Korea. 19 Nov.
22	Y				Y	21/11/2007	Mott MacDonald (UK), SNC-Lavalin International Inc. (Canada) and EDF (France) in cooperation with PricewaterhouseCoopers, have filed their bids for preparation of a feasibility study for investing in the construction of the Kambarata-1 and Kambarata-2 hydropower plants.	Bid filing	Central Asia General Newswire, 2007. Three companies bid for Kambaratin hydropower plants. 21 Nov.

23	Y						01/01/2008	The Government of the Kyrgyz Republic issues a decision to re-launch the construction of Kambarata 2 hydropower station (360 MW).	Adoption of legal instruments	Ministry of Economy of Kyrgyzstan, 2008. Regulation of specific industries.
24	Y						10/01/2008	Bakiyev said that "The government should start with the possible emission of long- term bonds for large national projects, including Kambarata 1 and 2 and an international highway."	Declaration/ Speech	Russia & CIS Business & Financial Daily, 2008. Bakiyev suggests issuing bonds for national projects. 10 Jan.
25	Y					Y	15/01/2008	EDF and PricewaterhouseCoopers have won the tender for an investment study of the Kambarata-1 and Kambarata-2 hydropower plants in Kyrgyzstan, said Inter RAO UES - the organizer of the tender. The winner will sign the contract in early 2008.	Contract Awarding	AKIpress, 2008. Kyrgyz, Tajik premiers discuss electricity supply, transport. 25 Jan.
26	Y						23/01/2008	The Kyrgyz government has endorsed the draft budget and its own programme of action for 2008, in which a total of 1.2 billion Somoni are planned to be channelled into the construction of the Kambarata hydroelectric power station.	Adoption of legal instruments	BBC Monitoring Central Asia Unit, 2008. Kyrgyz government endorses draft budget for 2008. 28 Jan.
27	Y		Y				25/01/2008	Tajik Prime Minister Oqil Oqilov expressed the opinion that it is necessary to boost the construction of the [Kyrgyz] Kambarata power stations. "This winter demonstrated that we should speed up the construction of the Kambarata-1 and Kambarata-2 hydroelectric power stations, whether we want it or not," Oqilov said.	Declaration/ Speech	AKIpress, 2008. Kyrgyz, Tajik premiers discuss electricity supply, transport. 25 Jan.

28	Y					Y	01/02/2008	A contract has been awarded to Electricité de France (EDF) and PricewaterhouseCoopers to study the Kambarata-1 and 2 hydropower projects in the Kyrgyz Republic.	Contract Awarding	Water Power & Dam Construction, 2008. EDF to study Kambarata schemes in Kyrgyz Republic. 29 Feb.
29	Y						07/05/2008	The Parliament plans to appeal to the President requesting him to announce construction of Kambarata water power station 2 as all-nation project. This appeal is initiated so that people would have spirit and pride as the country is constructing Kambarata water power station using its own resources only, Speaker Madumarov said today. The lawmakers plan to contribute their one-week pay, while Parliament staff will contribute their one-day pay making 640 thousand Somoni in total (some US\$ 18 thousand) to support construction of the water power station and related facilities.	Declaration/ Speech	AKIpress, 2008. Parliament to ask President to announce construction of Kambarata water power station 2 as all-nation project. 7 May.
30	Y						08/05/2008	Around \$ 1.5 US billion investments are required for construction of Kambarata I and II until 2020. Such information came from the report made by the Ministry of Industry, Energy and Fuel Resources, specifically: 1) construction of Kambarata water power station No. 1 (1,900 MW) will require US\$ 1.2 billion (construction period: 2010-2020) 2) construction of Kambarata water power station No. 2 (360 MW) will require US\$ 280 million (construction period: 2007-2012).	Other	AKIpress, 2008. Kyrgyzstan needs \$4US billion for construction of water power stations until 2020. 8 May.
31	Y					Y	05/06/2008	Russian energy firm Inter RAO has signed a contract with the winning bid team for the two Kambarata projects proposed to be built in the Kyrgyz Republic. The contract calls for the detailed feasibility study for the Kambarata projects by early next year. French energy utility Electricité de France (EDF) and international professional services firm Pricewaterhouse Coopers were named as the lowest bidders for the study in late December 2007.	Contract Awarding	Water Power & Dam Construction, 2008. Russian energy firm signs contract. 4 Jun.

32	Y					Y	23/09/2008	Russian equipment supplier Power Machines has received a contract to supply two turbines to the 360-MW Kambarata 2 hydroelectric project on Kyrgyzstan's Naryn River.	Contract Awarding	Hydroworld, 2008. Russian supplier to equip Kyrgyzstan's 360 MW Kambarata 2. 25 Sep.
33	Y					Y	01/10/2008	KGZ and RUS signed agreements concerning participation of Russia in construction of Kambarata-1 and -2 hydroelectric power plants and modernization of the republican oil and gas complex with Gazprom's help.	Agreement	The Russian Oil and Gas Report, 2008. Gazprom to take part in privatization of Kyrgyzstan. 13 Oct.
34	Y					Y	09/10/2008	The Russian and Kyrgyz presidents have ordered to accelerate the construction of the first and second Kambarata hydropower plants in Kyrgyzstan.	Declaration/Speech	Central Asia General Newswire, 2008. Russian, Kyrgyz presidents want faster building of Kambarata HPP. 9 Oct.

35	Y					28/11/2008	The residents of Suzak rayon collected 1 million Somoni (roughly US\$ 20 thousand) for construction of Kambarata-2 water power station. These funds were collected as a result of one-day pay contributions of workers from public budget financed organizations and other sources.	Fund collection	AKIpress, 2008. Suzak rayon residents collect 1 million som for construction of Kambarata-2 water power station. 28 Nov.
36	Y					17/12/2008	Five years will be required to fill in the basin of Kambarata-1 water power station, said Prime Minister Igor Chudinov during a joint meeting of three parliamentary factions today. Russia will give \$2US billion, including \$1US.7 billion for construction of Kambarata-1,2 water power stations and \$300US million for budget support. "Everything depends upon us now, how quickly we will hold talks," he said.	Other	AKIpress, 2008. Five years required to fill in basin of Kambarata-1 water power station. 17 Dec.
37	Y					25/12/2008	Roza Otunbaeva, parliamentarian from the Social Democratic Party of Kyrgyzstan, questions Kambarata. "Will the Russian US\$ 1.7 billion loan for construction of Kambarata-1 water power station bring benefit for Kyrgyzstan and does it meet interests of Kyrgyzstan? Frankly speaking, this is a commercial loan. With this loan the public external debt of Kyrgyzstan will double. Why do we drive ourselves into the grave?" Roza Otunbaeva said Russia will primarily hire Russian citizens and will become an owner of Central Asian water. "So, we will benefit nothing. Prior to any agreements we should think about interests of the state," she said.	Other	AKIpress, 2008. Lawmaker questions benefit of Russian loan for construction of Kambarata-1 water power station for Kyrgyzstan. 25 Dec.

38						15/01/2009	Roza Otunbayeva thinks that the president will have to bear responsibility if he takes the 2bn-loan to be allocated by Russia. "I want to emphasize that this issue is trampling on Kyrgyzstan's national interests. A foreign state is taking advantage of a difficult economic situation to become owner of water. Kyrgyzstan itself has paved the way for Russia to own our water," she said.	Other	BBC Monitoring Central Asia Unit, 2009. Kyrgyz ex-minister says president to be responsible for 2bn Russian loan. 15 Jan.	
39	Y		Y		Y	Y	23/01/2009	While visiting Uzbekistan, Medvedev stated that "Hydroelectric power stations in the Central Asian region must be built with consideration of the interests of all neighbouring states," adding that, "if there is no common accord of all parties, Russia will refrain from participation in such projects." As a reaction to this, the MFA of Tajikistan had sent a note of protest to the Russian Federation embassy.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajikistan offended by Russian leader's remarks on water use in region – paper. 11 Feb.
40	Y					Y	01/02/2009	Russia has gone ahead bilaterally with Kyrgyzstan with a pledge of a loan of \$1.7 billion to invest in the Kambarata hydro project. This decision coincided with Kyrgyzstan's announcement that the US should leave the Manas airbase, which is currently serving as an important supply base for the war in Afghanistan. --> Follow up 1: "In July 2009, the U.S. signed a new lease for Manas. The Kyrgyz did not return the Russian money. Shortly before the overthrow of the Bakiyev regime in April 2010, they were still complaining that Russia had failed to open the credit line promised for Kambarata-1".--> Follow up 2: Karimov said at IFAS meeting in April 2009 "Third countries which would very much like to take part in this discussion are also pursuing their own aims," Karimov noted in thinly veiled remarks that observers suggested were aimed at Moscow.	Issue linkage	Ministry of Economy of Kyrgyzstan, 2008. Regulation of specific industries; ICG, 2010. Policy Briefing Asia Briefing N°102 Bishkek/Brussels, 27 Apr. Eurasianet.org, 2009. Kazakhstan: Central Asian Leaders Clash over Water at Aral Sea Summit. 28 Apr.

41	Y					05/02/2009	Construction of Kambarata-1 water power station will help Kyrgyzstan and Uzbekistan tackle dry hydrological cycle problems, Igor Chudinov told news conference today in Bishkek. "we would like to stress one more time that this will help tackle dry hydrological cycle problems. Toktogul hydroelectric station will remain the main regulator. But we will have the station higher with reserve of 5 billion of water that can be used in dry hydrological cycles. We will be able to produce additional 6 billion kWh without using water from Toktogul reservoir," Igor Chudinov said when describing advantages of Kambarata-1 water power station. The Prime Minister said it is unclear yet who will control water streams, but Toktogul water power station will be the property of Kyrgyzstan and the main regulator of water issues on Naryn river.	Declaration/ Speech	AKIpress, 2009. PM Chudinov: Construction of Kambarata-1 water power station to help Kyrgyzstan, Uzbekistan tackle dry hydrological cycle problems. 5 Feb.	
42	Y		Y		Y	13/02/2009	At a session of the Cabinet of Ministers on 13 February, Uzbek President Islam Karimov said Uzbekistan did not mind Tajik and Kyrgyz energy projects if independent experts guarantee that the projects would not damage the environment, Uzbek TV reported the same day.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Uzbeks not against Tajik, Kyrgyz energy projects if ecology not harmed – leader. 13 Feb.	
43				Y	Y	25/02/2009	Uzbek President Islam Karimov has said water problems in the Central Asian region should not be politicized, and shows good relationship with Turkmen president. Karimov said that projects on the construction of power plants on transboundary rivers in the region must undergo an international examination.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Tajikistan "on brink of energy collapse" – agency. 10 Feb.	
44			Y			Y	16/03/2009	At the 5th World Water Forum, Tajik President called upon the international community to assist Central Asian countries in resolving their water problems. One of the ways the president sees to preserve the region's water is to increase the reservoir capacity in Tajikistan and Kyrgyzstan, both countries of the upper reaches, which would contribute to more efficient utilisation of this natural resource across the region and an increase in the production of hydroelectric power.	Declaration/ Speech	Central Asia Online, 2009. Water in Central Asia is a regional security problem. 24 Mar.

45	Y				Y	16/03/2009	At the 5th World Water Forum, Kyrgyz PM Chudinov states that KG is ready for a constructive dialogue to discuss mutually beneficial proposals for the effective use of water resources. He also stated that “By putting these (Kambarata 1 and 2) water reservoir into operation, needs in electric energy of the republic will be fully satisfied and it will let work Toktogul hydro juncture in optimal regime, in which downstream countries are concerned. Project on construction of Kambarata HPS was regulated with neighboring republics in 80-ies of last century and passed ecological expertise.”	Declaration/ Speech	Speech of Prime-Minister of the Kyrgyz Republic I. Chudinov at the Fifth World Water Forum Summit (Istanbul, 16 March 2009).
46	Y				Y	24/03/2009	The Uzbek MFA publishes an article written by S.Zhigarev, Director of OJSC “Gidroproject” underlining problems deriving from Kambarata. "It goes without saying, and it is clear to any sober-minded person that the 30-years-old projects must be subjected to an independent objective examination"	Newspaper article	Zhigarev, S., 2009. Problems Concerning Construction of the Kambarata Hydropower Station-1 in Kyrgyzstan. 23 Mar.
47	Y		Y		Y	14/04/2009	The Uzbek foreign ministry issued a formal statement warning that Rogun and Kambarata projects “pursue commercial interests and far-reaching political objectives, but disregard the possible consequences and ignore the concerns of the neighbouring states”.	Declaration/ Speech	IWPR, 2009. Tashkent Sees Astana as Possible Ally on Water. 18 Apr.
48	Y	Y	Y	Y	Y	15/04/2009	In an annual address to parliament, Rahmon dismissed as “groundless” claims that hydroelectric schemes will reduce water flows and harm the environment. Two days later, Kyrgyzstan’s Kurmanbek Bakiev accused unspecified “other countries” of trying to “gain control over our strategic resources”. Meanwhile, UZ has been busy	Declaration/ Speech	IWPR, 2009. Uzbek Overtures to Kazakhstan on Water Dispute. 30 Apr.

								enlisting the other downstream states, Turkmenistan and Kazakhstan, to support its cause.		
49					Y	Y	23/04/2009	UZ evidences WB support before IFAS meeting - The Gov. Newspaper of UZ "Pravda Vostoka" published a letter of WB President Robert Zoellick . The WB would like to clarify that it undertook responsibility to carry out preliminary study, paying a close attention to assessment of potential regional impacts. These studies will determine the technical, economic and financial viability of the proposed project, as well as its potential environmental and social impacts in light of the international agreements on the use of transboundary water resources. In this regard, I have taken into account and share Your concern regarding the delicate ecological balance of the region, and absolute necessity to ensure that the hydropower potential will not lead to a reduction of runoff water volume in states of the lower reaches, as well as the need to consider design of new buildings in seismic zones.	Newspaper article	AKIpress, 2009. World Bank to establish international commission of independents experts to scrutinize construction of hydroelectric power stations - response to President Karimov's letter. 28 Apr.
50	Y	Y	Y	Y	Y		28/04/2009	IFAS Summit in Almaty: the five Central Asian leaders met to discuss water issues related to the Aral Sea. The discussion on the interstate regulation of the Syr Darya and Amu Darya rivers (both flowing into the Aral Sea) between upstream and downstream countries dominated the summit's agenda. It exposed some of the deepest divisions among the region's leaders. Uzbekistan's President Islam Karimov bullied upstream Kyrgyzstan and Tajikistan for their plans to implement more assertive water management policies. Kazakhstan's President Nursultan Nazarbayev, in turn, demonstrated his upper hand by seeking to moderate the discussion, while Turkmenistan's Gurbanguly Berdimuhamedov called on others to seek a regional balance without clarifying how this might be achieved. The summit ended with the signing of an agreement without any specific detail on transnational water management.	Joint statement/declaration	Agence France Presse, 2009. Central Asian water talks boil over into bickering. 28 Apr. ; AKIpress, 2009. President Bakiev hints neighboring countries that Kyrgyzstan needs compensation for water accumulation. 28 Apr.

51	Y	Y	Y	Y	Y	28/04/2009	Kazakh President Nursultan Nazarbayev [chairman of the Aral Sea summit] rebuked Kyrgyz president for bringing the issue of Kambarata at the summit, as only issues related the Aral Sea were being considered.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Kyrgyz president rebuked for unscheduled remarks at Aral Sea summit. 28 Apr.
52	Y		Y		Y	30/04/2009	ALMATY follow-up: TJ paper "Tajikistan" accuses UZ of having created a "Plot hatched to mislead world community". "In fact, Mr Karimov's covert goal of intensifying a dispute over water and electricity in the region, which has been continuing for 17 years, is to attract the attention of the world community to investment projects for the construction of hydroelectric power stations in Tajikistan and Kyrgyzstan. Islam Karimov knows well that every time he plays this card in a specific manner, the issue of foreign investment in the hydroelectric power stations in the region will be postponed for a certain time. This is because Tashkent's hue and cry has made international donor organizations to act cautiously. Seeing and knowing this, Karimov is skilfully using this card.	Newspaper article	BBC Monitoring Central Asia Unit, 2009. Tajik paper claims Uzbekistan to blame for demise of Aral Sea. 18 May.
53	Y			Y	Y	05/05/2009	ALMATY follow-up: President Bakiyev of Kyrgyzstan stated in May of 2009 that both phases of the Kambarata power project will be built, regardless of "who likes it or not," a clear challenge to the objections of Tashkent and Ashgabat.	Declaration/ Speech	Eurasianet.org, 2009. Kyrgyzstan: Bakiyev Stands Up to Uzbekistan and Turkmenistan on Hydropower Projects. 6 May.
54	Y				Y	13/06/2009	Uzbek authorities decided to strengthen security on the Kyrgyz-Uzbek border. Specifically, they dug ditches in the Suzak, Aksy and No'okat borderline regions of Kyrgyzstan and erected walls in the Rishtan rayon of Uzbekistan's Ferghana region. One explanation for Uzbekistan's decision relates to Kyrgyzstan's intention to build the Kambarata hydro-electric station. Bishkek-based political scientist Mars Saryev views the current Uzbek policy as yet another sign of disapproval of such plans, and another way of raising difficulties for the Kyrgyz in realizing	Issue linkage	CACI Analyst, 2009. Uzbekistan-Kyrgyzstan: building a wall. 1 Jul.

							their energy potential.		
55	Y				Y	15/09/2009	An article by N. Koroleva(an official of Uzbekistan's State Nature Committee) in Uzbek newspaper Pravda Vostoka asks for independent feasibility studies of projects of new water facilities on Central Asian transboundary rivers should be examined independently. "The work of the Toktogul reservoir, the Kambarata -2 hydroelectric power station and the Kambarata-1 hydroelectric power station, which is being designed now, [all in Kyrgyzstan] has a significant transboundary effect on the environment of [central Uzbekistan's] Sirdaryo, Jizzax and Navoiy regions and will cause irreversible negative environmental consequences,".	Newspaper article	BBC Monitoring Central Asia Unit, 2009. Uzbek report calls for independent scrutiny of Central Asian water projects. 8 Oct.
56	Y				Y	23/09/2009	Uzbekistan suspends gas supplies to southern and northern Kyrgyzstan due \$19US million gas debt owed.	Resource cut	AKIpress, 2009. Gas supplies resume in Osh. 14 Oct.
57	Y				Y	24/09/2009	Mahira Usmanova, researcher of the Seismology Institute of the National Academy of Sciences of Uzbekistan, says that "Hydroelectric facilities should not be constructed in Central Asia without consideration of seismic issues and geological risks". Ms Usmanova reminded that the Toktogul hydroelectric station lies in the area with radioactive toxic wastes storage facilities. In case the water has burst out from the dam, not only Kyrgyzstan, but also Tajikistan, Kazakhstan and Uzbekistan will be in danger. The Toktogul hydroelectric station in the tectonic fault zone.	Declaration/ Speech	AKIpress, 2009. Kyrgyz hydroelectric stations in highly seismic zone pose potential threat of cascade-wise destruction - Uzbek Seismology Institute. 24 Sep.

58	Y					06/10/2009	Difficulties in getting the money from Russia for Kambarata, pushed the government to submit a bill to parliament that would nullify the law on constructing and running the Kambarata I and Kambarata II hydroelectric power stations. In addition, Otunbayeva criticised the government, saying that "Television advertisements about the construction have already pulled the wool over our eyes. It should be pointed out that the incumbent president's election programme was based exactly on this project. However, we see today that they are talking nonsense to people. It turns out that Kyrgyzstan is unable to complete this project on its own, without bringing investment,".	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Kyrgyz government cannot afford to fund major hydropower project – official. 6 Oct; BBC Monitoring Central Asia Unit, 2009. Key hydropower project unfeasible without foreign help - Kyrgyz opposition MP. 7 Oct.
59						09/10/2009	The Kyrgyz parliament has declared the law "On the construction and use the Kambarata hydroelectric power stations" no longer valid. The head of the Kyrgyz State Committee for the Management of State Property, Tursun Turdumambetov, said that the law in force prevented the attraction of investment to complete the construction of the Kambarata-2 power plant, and that it went against the law "On joint stock companies".	Resolution	BBC Monitoring Central Asia Unit, 2009. Kyrgyz parliament voids law banning power plants from being sold. 10 Oct.
60	Y				Y	14/10/2009	Uzbekistan resumes gas supply to Osh (gas was cut on September 23)	Resumption of resource supply	AKIpress, 2009. Gas supplies resume in Osh. 14 Oct.

61	Y				Y	23/10/2009	Kyrgyzstan will use US\$ 100 million of a US\$ 300-million state loan provided by Russia to build the Kambarata-2 hydroelectric power plant, Kyrgyz Finance Minister Marat Sultanov said in parliament on Friday. The fund recently suspended its efforts to fund the project. It is now waiting for Electric Power Plants to fulfil earlier agreed conditions, including the construction of the Kambarata-2 facility, an additional issue of shares for purchase by the fund and a business plan that would guarantee the project's seven-year payback period.	Other	Central Asia General Newswire, 2009. Kyrgyzstan to spend part of Russian loan on Kambarata-2. 23 Oct.
62	Y	Y		Y		23/12/2009	Kyrgyz President Kurmanbek Bakiyev has said that downstream countries such as Uzbekistan and Kazakhstan will benefit from the construction of the Kambarata 2 hydroelectric power station. He said by constructing the power plant Kyrgyzstan would ensure uninterrupted power supply for local population and accumulate water for irrigation needs of downstream countries in the region.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2009. Kyrgyz leader says neighbours to benefit from new power plant. 23 Dec.
63	Y				Y	28/12/2009	Uzbek President Islam Karimov held a meeting with Kyrgyz Prime Minister Daniyar Usenov to discuss prospects for developing bilateral cooperation. Following the talks, Kyrgyz Prime Minister Daniyar Usenov said his country would possibly carry out an international expert examination of the project of the Kambarata-1 hydroelectric power station. "The Uzbek side has informed the Kyrgyz one of its concern over plans to construct the Kambarata-1 power plant in view of possible damage to the environment and the water and energy balance, as well as possible technological threats. For this reason, Uzbekistan has requested to carry out an international expert examination of the project under the aegis of the World Bank. The reservoir of the planned Kambarata-2 hydroelectric power station will contain 5bn cubic meter of water. This volume is large enough. Kyrgyzstan will benefit from the conduct of an expert examination of Kambarata-1. According to him, a delegation of the World Bank's	Talks on dam	BBC Monitoring Central Asia Unit, 2009. Kyrgyzstan may agree to probe into major water facilities – premier. 30 Dec.

							Board of Directors visited the place allocated for the construction several weeks earlier. "I asked them to help and allocate a grant to carry out a thorough expert examination of Kabarata-1. All the major facilities should undergo an international examination. We see nothing bad in it," the Kyrgyz prime minister noted.		
64	Y	Y			Y	13/02/2010	Kyrgyz President Bakiev says that Central Asian states should live in peace and harmony. He is sure that the construction of the Kambarata hydroelectric power station will "only benefit our neighbors". "We will be able to save water. Once the Kambarata-2 hydroelectric power station starts functioning, water will be regulated on a daily basis. We will be able to accumulate such a volume of water in the Toktogul water reservoir that will make it possible not to flood our neighbors in winter. We will be able to save water in winter and provide its necessary volumes in summer," he said.	Declaration/ Speech	BBC Monitoring Central Asia Unit, 2010. Central Asian states should live in peace and harmony - Kyrgyz leader. 13 Feb.
65	Y				Y	27/02/2010	Russia and Kyrgyzstan have agreed to conduct an international expert examination of the project to complete the two Kambarata hydropower plants in Kyrgyzstan, Russian Energy Minister Sergei Shmatko told reporters Saturday.	Agreement	Prime-Tass English-language Business Newswire, 2010. Russia, Kyrgyzstan agree on intl examination of Kambarata proj. 27 Feb.
66	Y	Y	Y		Y	16/03/2010	Nazarbayev visits Uzbekistan. A tendency for KZ-UZ rapprochement is evident from Karimov's backing to Nazarbayev's initiative to convene the OSCE summit under the aegis of Kazakhstan chairmanship in this Organisation. According to Nursultan Nazarbayev, the environmental and anthropogenic security of and regulation of water flows at Rogun HPP in Tajikistan and Kambarata facilities in Kyrgyzstan need be appraised by international experts. "There ought to be no hydroelectric power plants in the region without results of the expertise obtained and studied," he said. The Kazakh leader underlined that ahead of his visit to Uzbekistan he had been in talks with Emomali Rahmon and Kurmanbek Bakiyev. "In principle they are ready for expert evaluation. Islam Karimov and I have come to an agreement we are now announcing - after the expert opinion is	Talks on water/energy	Eurasianet.org, 2010. Tajikistan: World Bank Offer Energizes Rogun Hydropower Project. 15 Mar.

							ready we are getting down to construction of new facilities".			
67	Y				Y	30/03/2010	A month has passed since Uzbekistan unilaterally closed the Kara-Suu-Avtodorozhnyy customs checkpoint. The true reasons behind this decision have remained unknown, but some human rights activists connect the closing of the checkpoint with the construction of the Kambarata hydroelectric power station, which the Uzbeks think can lead to a decrease in the volume of water flowing to Uzbekistan.	Border closure	BBC Monitoring Central Asia Unit, 2010. Paper eyes recent closure of customs checkpoint on Uzbek-Kyrgyz border. 3 Apr.	
68		Y	Y		Y	Y	31/03/2010	Russian Deputy Prime Minister Sergey Ivanov who is on a visit to Tashkent, has confirmed Russia's unchangeable position towards projects on the construction of major hydroelectric facilities in Central Asia. "Construction of major hydroelectric facilities in Central Asia should be carried out in full agreement with the neighbouring countries," Ivanov said answering questions of journalists about Russia's position towards the construction of the Rogun hydroelectric power station in Tajikistan and Kambarata [hydroelectric power station] in Kyrgyzstan, and about water balance between Tajikistan, Kyrgyzstan and Uzbekistan.	Talks on water/energy	BBC Monitoring Central Asia Unit, 2010. Tajik dam expert says no one has right to stop construction of Roghun plant. 24 Feb.
69	Y		Y		Y	Y	03/05/2010	Karimov, addressing the opening of the Asian Development Bank's (ADB) board of governors meeting in Tashkent, slammed his neighbours for what he said was a lack of foresight about the environmental impact of their policies. "In Uzbek we say 'where this is no water there is no life'. That's why, indeed, we treat this problem seriously," Karimov said. "Unfortunately, some of our neighbours do not treat this issue like-mindedly, especially the countries on the upstream of the rivers. They do not think about what kind of consequences it may lead to," he added.	Declaration/Speech	Agence France Presse – English, 2010. Uzbek leader blasts neighbours in water row. 3 May.

70	Y				Y		19/05/2010	Uzbektransgaz, the state gas company of Uzbekistan, has cut delivery of gas to Osh in neighboring Kyrgyzstan by 50 % over back payments due of some 1.6 million Somoni (about US\$ 10,000).	Resource cut	TendersInfo, 2010. Kyrgyzstan: Uzbekistan Cuts Gas Delivery to Kyrgyzstan. 22 May.
71	Y						30/08/2010	KG launched Kambarata-2 US\$ 200 million hydroelectric power station on Monday, its first since the collapse of the Soviet Union. Acting President Roza Otunbayeva pressed a symbolic red button to start the first unit of the Kambarata-2 hydro project. The project, funded partly by Russia, will allow Kyrgyzstan to generate more power but could divert water from its neighbours.	Dam launch	Reuters, 2010. Kyrgyzstan launches new hydroelectric power plant. 30 Aug.
72	Y		Y		Y		22/11/2010	Viktor Chub, head of the meteorology centre of Uzbekistan (Uzgidromet), believes that the construction of the Rogun hydroelectric power station (Tajikistan) and its launch in the planned operation mode will significantly influence the flow of Amu Darya. A similar situation will be observed with regard to the water flow in Syr Darya [river] after the Kambarata 2 hydroelectric power station and the Toktogul reservoir (Kyrgyzstan) switch to power generation mode.	Newspaper article	BBC Monitoring Central Asia Unit, 2010. Uzbek expert against new hydro-energy projects in region. 23 Nov.
73	Y						29/11/2010	Otunbaeva says Kambarata-1 hydropower project to be reviewed by international experts, following Uzbek requests. "I think construction of such big facilities should be reviewed. We will reach agreement on this issue with our neighbors," President Otunbaeva said. "We will discuss this problem in the spirit of cooperation. I think we will built the hydropower plant after review is completed" the President said.	Declaration/ Speech	AKIpress, 2010. President Otunbaeva says Kambar-Ata-1 hydropower project to be reviewed by international experts. 29 Nov.
74	Y					Y	10/02/2011	At a meeting of a Russian-Kyrgyz intergovernmental commission, representatives of the Russian government agreed to develop a construction project for several hydropower plants on the Naryn River in Kyrgyzstan. The representatives of the Russian delegation also said that the construction	Talks on dam	Prime-Tass English-language Business Newswire, 2011. Russian government to mull electric power imports from Kyrgyzstan. 10 Feb.

								of Kambarata-1 hydropower plant in Kyrgyzstan was expected to be completed with the participation of Russian companies.		
75	Y						02/05/2011	Kyrgyzstan was forced to halt the first unit of its Kambarata-2 hydropower plant to repair damages just three months into operation. The damages occurred during the early stages of construction. Experts say the power plant was launched prematurely and that workers had not resolved problems resulting from a dam explosion in late 2009 that went wrong, the news agency reported.	Accident	Central Asia Newswire, 2011. Kyrgyzstan forced to halt unit in Karambata-2 hydro plant. 2 May.

Bibliography

1. Monographs and edited books

- Abazov, R., 2008. *The Palgrave concise historical atlas of central Asia*. New York: Palgrave Macmillan.
- Abdel Haleem, M. A. S. ed., 2005. *Qur'an, The. Oxford World's Classics*: Oxford University Press.
- Adle, C. and Palat, M.K., 2005. *History of civilizations of Central Asia*. Paris: UNESCO.
- Akehurst, M. and Malanczuk, P., 1997. *Akehurst's Modern introduction to international law*. 7th ed. London: Taylor & Francis.
- Allan, J.A., 2001. *The water question in the Middle East: Hydropolitics and the global economy*. London: Tauris.
- Allworth, E.A., ed., 1967. *Central Asia: One Hundred Thirty Years of Russian Dominance, A Historical Overview*: Duke University Press Books.
- Anceschi, L., 2009. *Turkmenistan's foreign policy: Positive neutrality and the consolidation of the Turkmen regime*. London, New York: Routledge.
- Anderson, J., 1999. *Kyrgyzstan: Central Asia's Island of Democracy*. London: Routledge.
- Austin, J.L., 1975. *How to do things with words: The William James Lectures delivered at Harvard University in 1955*. 2nd ed. Oxford: Clarendon Press.
- Balzacq, T., 2012, cop. 2010. Constructivism and Securitization Studies. In: M. Dunn and V. Mauer, eds. *The Routledge handbook of security studies*. 1st ed. Abingdon, New York: Routledge.
- Beaumont, P., et al., 1989. *Qanat, kariz, and khattara: Traditional water systems in the Middle East and North Africa*. London, Wisbech, Cambridgeshire, England: Middle East Centre, School of Oriental and African Studies, University of London; Middle East & North African Studies Press.
- Berenskoetter, F. and Williams, M.J., 2007. *Power in world politics*. London, New York: Routledge.
- Bergne, P., 2007. *The birth of Tajikistan: National identity and the origins of the Republic*. London: I.B. Tauris.

- Birks, M. and Mills, J., 2011. *Grounded theory: A practical guide*. Los Angeles, Calif: SAGE.
- Burchill, S., ed., 2001. *Theories of international relations*. 2nd ed. Houndmills [etc.]: Palgrave.
- Burghart, D.L. and Sabonis-Helf, T., 2004. *In the tracks of Tamerlane: Central Asia's path to the 21st century*. Washington, D.C: National Defense University, Center For Technology and National Security Policy.
- Buzan, B., Waever, O., and Wilde, J.d., 1998. *Security: A new framework for analysis*. Boulder, Colo: Lynne Rienner.
- Capisani, G.R., 2000. *The handbook of Central Asia: A comprehensive survey of the new republics*. London, New York: I.B. Tauris.
- Caponera, D.A. and Nanni, M., 2007. *Principles of water law and administration: National and international*. 2nd ed. New York: Taylor & Francis.
- Clegg, S. and Haugaard, M., 2009. *The Sage handbook of power*. London, Thousand Oaks, Calif: SAGE.
- Cummings, S.N., 2002. *Power and change in Central Asia*. London, New York: Routledge.
- Cummings, S.N., 2009. *Domestic and international perspectives on Kyrgyzstan's 'Tulip Revolution': Motives, mobilization and meanings*. London, New York: Routledge.
- Cummings, S.N., 2010. *Symbolism and power in Central Asia: Politics of the spectacular*. London, New York: Routledge.
- Cummings, S.N., 2012. *Understanding Central Asia: Politics and contested transformations*. New York: Routledge.
- Dahl, R.A., 1957. *The concept of power*. New York: Bobbs-Merrill.
- Dahl, R.A., 1961. *Who governs?: Democracy and power in an American city*. New Haven: Yale Univ. Press.
- Dannreuther, R., 2007. *International security: The contemporary agenda*. Cambridge, UK: Polity.
- Deudney, D. and Matthew, R.A., 1999. *Contested grounds: Security and conflict in the new environmental politics*. Albany: State University of New York Press.
- Dinar, A., et al. *Bridges over water: Understanding transboundary water conflict, negotiation and cooperation*. Singapore: World Scientific Publishing Company.

- Dolukhanov, P., 1994. *Environment and ethnicity in the Middle East*. Aldershot: Avebury.
- Dukhovnyĭ, V.A. and Sokolov, V., 2003. *Lessons on cooperation building to manage water conflicts in the Aral Sea Basin*. New York: UNESCO.
- Earle, A., Jägerskog, A., and Öjendal, J., eds., 2010. *Transboundary water management: Principles and practice*. London, Washington, DC: Earthscan.
- Eickelman, D.F., 1998. *The Middle East and Central Asia: An anthropological approach*. 3rd ed. Upper Saddle River, N.J: Prentice Hall.
- Elhance, A.P., 1999. *Hydropolitics in the Third World: Conflict and cooperation in international river basins*. Washington, D.C: United States Institute of Peace Press.
- Everett-Heath, T., 2003. *Central Asia: Aspects of transition*. London, New York: Routledge Curzon.
- Fairclough, N., 2010. *Critical discourse analysis: The critical study of language*. 1st ed. London [etc.]: Longman.
- Farrell, J.C. and Smith, A.P., 1968, c1967. *Image and reality in world politics*. New York: Columbia University Press.
- Feshbach, M. and Friendly, A., 1992. *Ecocide in the USSR: Health and nature under siege*. New York, NY: BasicBooks.
- Foucault, M., 1979. *Discipline and punish: The birth of the prison*. New York: Vintage Books.
- Foucault, M., 1998. *The History of Sexuality: The will to knowledge*. London: Penguin Books.
- Fox, I.K., ed., 1971. *Water resources law and policy in the Soviet Union*. Madison: Published for the Water Resources Center, University of Wisconsin [by] the University of Wisconsin Press.
- Gioberti, V., 1851. *Del rinnovamento civile d'Italia*. Parigi, Torino: G. Bocca.
- Glaser, B.G. and Strauss, A.L., 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research: Strategies for Qualitative Research*: Aldine.
- Gleason, G., 1997. *The Central Asian states: Discovering independence*. Boulder, Colo: Westview Press.
- Gleick, P.H., 1998. *The world's water: The biennial report on freshwater resources*. Washington, D.C: Island Press.

- Gleick, P.H., 2006. *The world's water 2006-2007: The biennial report on freshwater resources*. Washington: Island Press.
- Gleick, P., 2011. *The World's Water Volume 7*. Island Press.
- Gramsci, A., 1975. *Quaderni del carcere: Edizione critica dell'Istituto Gramsci*. Torino: Einaudi.
- Gramsci, A., 1975a. *Lettere dal carcere*. Torino: Einaudi.
- Grix, J., 2001. *Demystifying postgraduate research: From MA to PhD*. Edgbaston: University of Birmingham Press.
- Hanks, R.R., 2010. *Global security watch - Central Asia*. Santa Barbara, Calif: Praeger.
- Homer-Dixon, T.F., 1999. *Environment, scarcity, and violence*. Princeton, N.J: Princeton University Press.
- Hunter, F., 1953. *Community power structure: A study of decision makers*. Chapel Hill: University of North Carolina Press.
- Kalpakian, J., 2004. *Identity, Conflict and Cooperation in International River Systems*: Ashgate Publishing Group.
- Kaplan, R.D., 1994. *The coming anarchy: How scarcity, crime, overpopulation, tribalism, and disease are rapidly destroying the social fabric of our planet*. Boston, Mass.: Atlantic Monthly.
- Karimov, I.A., 1997. *Uzbekistan on the threshold of the twenty-first century*. Richmond, Surrey, U.K: Curzon.
- Kavalski, E., ed., 2010. *Stable outside, fragile inside?: Post-Soviet statehood in central Asia*. Farnham, Surrey, Burlington, VT: Ashgate Pub.
- Keller, R., 2012. *Doing Discourse Research: An Introduction for Social Scientists*. London: SAGE Publications Ltd.
- Keohane, R.O., 1984. *After Hegemony: Cooperation and Discord in the World Political Economy: Cooperation and Discord in the World Political Economy*: Princeton University Press.
- Keohane, R.O., ed., 1986. *Neorealism and its critics*. 378th ed.: Nueva York, EUA : Columbia University.
- Khagram, S., 2004. *Dams and development: Transnational struggles for water and power*. 1st ed. Ithaca, NY: Cornell Univ. Press.

- Klare, M.T., 2001. *Resource wars: The new landscape of global conflict*. 1st ed. New York: Metropolitan Books.
- Klotz, A. and Lynch, C., 2007. *Strategies for research in constructivist international relations*. Armonk, N.Y: M.E. Sharpe.
- Kolars J.A. and Mitchell W.A., 1991. *The Euphrates River and the Southeast Anatolia Development Project: Water: The Middle East Imperative*. Southern Illinois University Press.
- Laclau, E. and Mouffe, C., 2001. *Hegemony and socialist strategy: Towards a radical democratic politics*. 2nd ed. London: Verso.
- Lasserre, F. and Rocard, M., impr. 2009. *Écologie, irrigation, diplomatie, comment éviter les guerres de l'eau: L'eau au coeur des conflits du XXIe siècle*. Paris: Delavilla.
- Lowi, M.R., 1993. *Water and power: The politics of a scarce resource in the Jordan River basin*. Cambridge [England], New York, NY, USA: Cambridge University Press.
- Lukes, S., 1974. *Power: A radical view*. London, New York: Macmillan.
- Lukes, S., 2005b. *Power: A radical view*. 2nd Edition. Hampshire: Palgrave.
- Machiavelli, N., 1958. *The prince*. 8th ed. New York NY: New American Library.
- Mandelbaum, M., 1994. *Central Asia and the world: Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan, and Turkmenistan*. New York: Council on Foreign Relations Press.
- Marat, E., 2008. *National ideology and state-building in Kyrgyzstan and Tajikistan*. Washington, D.C: Central Asia-Caucasus Institute & Silk Road Studies Program.
- Marx, K., 1867. *Capital: A Critique of Political Economy*. Volume I Book One: The Process of Production of Capital. 1887th ed.
- Mauer, V. and Dunn Cavelt, M., 2011. *The Routledge handbook of security studies*. Milton Park u.a: Routledge.
- McCool, D., 2012. *River republic: The fall and rise of America's rivers*. New York: Columbia University Press.
- McCully, P., 2001. *Silenced rivers: The ecology and politics of large dams*. London, Atlantic Highlands, N.J., USA: Zed Books.
- Micklin, P., 2000. *Managing water in central Asia*. London, Washington, DC: Royal Institute of International Affairs; Distributed worldwide by Brookings Institution.
- Mills, C.W., 1956. *The power elite*. New York: Oxford University Press.

- Mitchell, T., 2002. *Rule of experts: Egypt, techno-politics, modernity*. Berkeley: University of California Press.
- Mordenti, R., 1996. *Quaderni dal carcere di Antonio Gramsci*. Torino: Einaudi.
- Mosca, G., 1923. *Elementi di scienza politica*. 2nd ed. Torino: Fratelli Bocca.
- Nye, J.S., 2002. *The Paradox of American Power: Why the World's Only Superpower Can't Go It Alone*. Oxford University Press.
- Ó Beacháin D. and Polese A., eds., 2010. *The Colour Revolutions in the Former Soviet Republics: Successes and Failures*. London: Routledge.
- Ohlsson, L., 1995. *Hydropolitics: Conflicts over water as a development constraint*. Dhaka, London, Atlantic Highlands, N.J: University Press; Zed Books.
- Olcott, M.B., 1996. *Central Asia's new states: Independence, foreign policy, and regional security*. Washington, D.C: United States Institute of Peace Press.
- Olcott, M.B., 2012. *Tajikistan's difficult development path*: Carnegie Endowment for International Peace.
- Pearce, F., 2007. *When the Rivers Run Dry: Water: The Defining Crisis of the Twenty-first Century*. London: Beacon Press.
- Phillips, D., 2006. *Trans-boundary water cooperation as a tool for conflict prevention and for broader benefit-sharing: Prepared for the Ministry for Foreign Affairs, Sweden*. Windhoek, [Stockholm: Phillips Robinson and Associates; Expert Group on Development Issues (EGDI), Ministry for Foreign Affairs].
- Platone and Vegetti, M., 1994-1995. *La Repubblica*. Napoli: Bibliopolis.
- Rahaman, M.M. and Varis, O., eds., 2008. *Central Asian waters: Social, economic, environmental and governance puzzle*. Espoo: Helsinki University of Technology.
- Rahmon, E., 2002. *The Tajiks in the mirror of history*. London: River Editions.
- Rapley, T., 2008. *Doing Conversation, Discourse and Document Analysis*: Sage Publications.
- Reisner, M., 1993. *Cadillac desert: The American West and its disappearing water*. 15th ed. New York: Penguin Books.
- Roll, G. et al., 2006. *Aral Sea - Experiences and Lessons Learned Briefs*. IW: Science, United Nations University Institute for Water, Environment and Health (UNUINWEH).

- Roy, O., 2000. *The new Central Asia: The creation of nations*. New York: New York University Press.
- Scott, J.C., 1985. *Weapons of the weak: Everyday forms of peasant resistance*. New Haven: Yale University Press.
- Sehring, J., 2009. *The Politics of Water Institutional Reform in Neopatrimonial States: A Comparative Analysis of Kyrgyzstan and Tajikistan*. Wiesbaden: VS Verlag für Sozialwissenschaften,.
- Sehring, J., 2012. *From the glaciers to the Aral Sea - water unites*. Berlin: Trescher.
- Sharma, C., 1989. *Modern Temples of India: Selected Speeches of Jawaharlal Nehru at Irrigation and Power Projects*. Delhi: Central Board of Irrigation and Power.
- Sironneau, J., 1996. *L'eau: Nouvel enjeu stratégique mondial*. Paris: Économica.
- Starr, S.F., 2008. *In defense of greater Central Asia*. Washington, D.C: Central Asia-Caucasus Institute & Silk Road Studies Program.
- Spector, R.A., 2004. The Transformation of Askar Akaev, President of Kyrgyzstan. *Berkeley Program in Soviet and Post-Soviet Studies Working Paper Series*, Spring.
- Stevenson, S., 2012. *Stalin's legacy: The Soviet war on nature*. Edinburgh: Birlinn.
- Starr, S.F., Beshimov, B., and Bobokulov, I.I., 2011. *Ferghana Valley: The heart of Central Asia*. Armonk, N.Y: M.E. Sharpe.
- Strange, S., 1998. *States and Markets: 2nd Edition*: Bloomsbury Academic.
- Tooze, R. and May, C., eds., 2002. *Authority and markets: Susan Strange's writings on international political economy*. Houndmills, Basingstoke, Hampshire, New York: Palgrave/Macmillan.
- Trottier, J., 1999. *Hydropolitics in the West Bank and Gaza Strip*. Jerusalem: PASSIA, Palestinian Academic Society for the Study of International Affairs.
- Tuomela, R., 2000. *Cooperation: A philosophical study*. Dordrecht, Boston: Kluwer Academic Publishers.
- Turton, A. and Henwood, R., 2002. *Hydropolitics in the developing world: A Southern African perspective*. Pretoria: African Water Issues Research Unit, Centre for International Political Studies, University of Pretoria.

- Valentini K.L., Orolbaev E.E., and Abylgazieva A.K., 2004. *Water problems of Central Asia*. International strategic research institute under the President of the Kyrgyz Republic Socinformburo the Friedrich-Ebert-Stiftung in the Kyrgyz Republic.
- Villiers, M. de, 1999. *Water wars: Is the world's water running out?* London: Weidenfeld and Nicolson.
- Vogtmann, H. and Dobretsov, N., eds., 2005. *Transboundary Water Resources: Strategies for Regional Security and Ecological Stability*. Netherlands: Springer.
- Waterbury, J., 1979. *Hydropolitics of the Nile Valley*. 1st ed. Syracuse, N.Y: Syracuse University Press.
- Weber, M. and Parsons, T., 1947. *The theory of social and economic organization: Being part 1 of Wirtschaft und Gesellschaft. Translated from the German by A.R. Henderson, and Talcott Parsons*. London: W. Hodge.
- Wegerich, K. and Warner, J., eds., 2010. *The politics of water: A survey*. 1st ed. London: Routledge.
- Wendt, A., 1999. *Social theory of international politics*. Cambridge, U.K, New York: Cambridge University Press.
- Wittfogel, K.A., 1957. *Oriental despotism;: A comparative study of total power*. New Haven: Yale University Press.
- Wolf, A.T., 1995. *Hydropolitics along the Jordan River: Scarce water and its impact on the Arab-Israeli conflict*. Tokyo, New York: United Nations University Press.
- Wolf, A.T., Yoffe, S.B., and Giordano, M., 2003. *International waters: Indicators for identifying basins at risk*. Paris: UNESCO.
- Worster, D., 1985. *Rivers of empire: Water, aridity, and the growth of the American West*. 1st ed. New York: Pantheon Books.
- Yin, R.K., 2009. *Case Study Research: Design and Methods. 4th Edition*. 5th ed. Los Angeles, Calif. [u.a.]: Sage Publ.
- Zeitoun, M., 2011. *Power and Water in the Middle East: The Hidden Politics of the Palestinian-Israeli Water Conflict*. London: I.B. Tauris & Co.

2. Articles from academic journals, edited books and conference proceedings

- Abbink, K., Moller, L.C., and O'Hara, S., 2010. Sources of Mistrust: An Experimental Case Study of a Central Asian Water Conflict. *Environmental and Resource Economics*, 45 (2), 283–318.
- Allan, J.A. and Mirumachi, N., 2010. Why Negotiate? Asymmetric Endowments, Asymmetric Power and the Invisible Nexus of Water, Trade and Power That Brings Apparent Water Security. In: A. Earle, A. Jägerskog, and J. Öjendal, eds. *Transboundary water management: Principles and practice*. London, Washington, DC: Earthscan.
- Allouche, J., 2004. A source of regional tension in Central Asia: The case of water. In: *The illusions of transition: Which perspectives for Central Asia and the South Caucasus ? : [conference organized in Geneva, 17 March 2004]*. Genève: CIMERA.
- Allouche, J., 2007. The Governance of Central Asian Waters: National Interests versus Regional Cooperation. *Disarmament Forum*.
- Bacharach, P. and Baratz, M.S., 1962. Two faces of power. *The American political science review*, 56 (4), 947–952.
- Balland, D., 1997. Diviser l'invisible: les frontières introuvables des Etats centrasiatiques. *Hérodote*, 84, 77–123.
- Bernauer, T. and Siegfried, T., 2012. Climate change and international water conflict in Central Asia. *Journal of Peace Research*, 49 (1), 227–239.
- Bichsel, C., 2011. Liquid Challenges: Contested Water in Central Asia. *Sustainable Development Law & Policy*, 12 (1).
- Bieler, A. and Morton, A.D., 2004. A critical theory route to hegemony, world order and historical change: neo-Gramscian perspectives in International Relations. *Capital & Class*, 28 (1), 85–113.
- Biswas, A.K., 2001. Management of international waters: Opportunities and constraints. *Sustainable development of the Ganges-Brahmaputra-Meghna basins*.
- Bohr, A., 2004. Regionalism in Central Asia: New Geopolitics, Old Regional Order. *International Affairs*.

- Brugnach, M., A. Dewulf, C. Pahl-Wostl, and T. Taillieu, 2008. Toward a relational concept of uncertainty: about knowing too little, knowing too differently, and accepting not to know. *Ecology and Society* 13 (2008) 2, 13 (2).
- Butakoff, A., 1853. Survey of the Sea of Aral. *Journal of the Royal Geographical Society of London, Vol. 23 (1853), pp. 93-101*, 23, 93–101.
- Cascao, A. and Zeitoun, M., 2010. Power, hegemony and critical hydropolitics. In: A. Earle, A. Jägerskog, and J. Öjendal, eds. *Transboundary water management: Principles and practice*. London, Washington, DC: Earthscan.
- Cascao, A., 2008. Ethiopia-Challenges to Egyptian hegemony in the Nile basin. *Water Policy*, 10 (2), 13–28.
- Cooley, J.K., 1984. The war over water. *Foreign policy*. -, 54, 3–26.
- Cowan, P.J., 2007. Geographic usage of the terms Middle Asia and Central Asia. *Journal of Arid Environments*, 69 (2), 359–363.
- Cox, R.W., 1981. Social forces, states and world orders: Beyond international relations theory. *Millennium - Journal of International Studies*, 10 (2), 126–155., 10 (2), 126–155.
- Cox, R.W., 1983. Gramsci, hegemony, and international relations: An essay in method. *Millennium - Journal of International Studies*, 10 (2), 126–155., 12 (2), 162–175.
- D'Souza, R., 2008. Framing India's Hydraulic Crisis: The Politics of the Modern Large Dam. *Monthly Review*, 60 (3).
- Daoudy, M., 2008. Hydro-hegemony and international water law: laying claims to water rights. *Water Policy*, 10 (2), 89–102.
- Daoudy, M., 2009. Asymmetric Power: Negotiating Water in the Euphrates and Tigris. *International Negotiation*, 14 (2), 361–391., 14 (2), 361–391.
- Daoudy, M., 2010. Getting Beyond the Environment-Conflict Trap: Benefit-Sharing in International River Basins. In: A. Earle, A. Jägerskog, and J. Öjendal, eds. *Transboundary water management: Principles and practice*. London, Washington, DC: Earthscan, 43–58.
- Dellapenna, J.W., 2001. The customary international law of transboundary fresh waters. *Int. J. Global Environmental Issues, Vol. 1, Nos. 3/4, 2001*, 1 (3/4), 264–305.

- Dewulf, A., *et al.*, 2005. Integrated management of natural resources: dealing with ambiguous issues, multiple actors and diverging frames. *Water Science & Technology Vol 52 No 6 pp 115–124*, 52 (6), 115–124.
- Deyermond, R., 2009. Matrioshka hegemony? Multi-levelled hegemonic competition and security in post-Soviet Central Asia. *Review of International Studies*, 35 (1), 151–173.
- Dinar, S., 2005. Treaty Principles and Patterns: Selected International Water Agreements as Lessons for the Resolution of the Syr Darya and Amu Darya Water Dispute. In: H. Vogtmann and N. Dobretsov, eds. *Transboundary Water Resources: Strategies for Regional Security and Ecological Stability*: Springer Netherlands, 147–168.
- Dinar, S., 2009. Power Asymmetry and Negotiations in International River Basins. *International Negotiation*, 14 (2), 329–360.
- Dinar, S., Dinar, A., and Kurukulasuriya, P., 2011. Scarcity and Cooperation along International Rivers: An Empirical Assessment of Bilateral Treaties¹. *International Studies Quarterly*, 55 (3), 809–833.
- Duffy, G. and Frederking, B., 2009. Changing the Rules: A Speech Act Analysis of the End of the Cold War. *International Studies Quarterly*, 53 (2), 325–347.
- Ekers, M. and Loftus, A., 2008. The power of water: Developing dialogues between Foucault and Gramsci. *Environment and planning : society and space*, 26, 698–718.
- Emerson, M., *et al.*, 2009. *Synergies vs. spheres of influence in the pan-European space*. Brussels: Centre for European Policy Studies.
- Falkenmark, M., 1990. Global Water Issues Confronting Humanity. *Journal of Peace Research*, 27 (2), 177–190.
- Falkenmark, M., 1992. Water scarcity generates environmental stress and potential conflicts. In: W. James, J. Niemczynowicz, and G. Lindh, eds. *Water, development, and the environment*. Boca Raton: Lewis, 279–292.
- Falkenmark, M., Lundqvist, J., and Widstrand, C., 1989. Macro-scale water scarcity requires micro-scale approaches. *Natural Resources Forum*, 13 (4), 258–267.
- Falkenmark, M., 2007. *On the verge of a new water scarcity: A call for good governance and human ingenuity*. Stockholm: Stockholm International Water Institute (SIWI).

- Féaux de la Croix, Jeanne, 2011. Moving metaphors we live by: water and flow in the social sciences and around hydroelectric dams in Kyrgyzstan. *Central Asian Survey*, 30 (3-4), 487–502.
- Frey, F.W., 1993. The Political Context of Conflict and Cooperation Over International River Basins. *Water International*, 18 (1), 54–68.
- Furlong, K., 2006. Hidden theories, troubled waters: International relations, the ‘territorial trap’, and the Southern African Development Community's transboundary waters. *Political Geography*, 25 (4), 438–458.
- Gaventa, J., 2003. Power After Lukes: An Overview of Theories of Power Since Lukes and Their Application to Development. (*draft*).
- Gill, S. and Law, D., 1988. *The global political economy: Perspectives, problems, and policies*. Baltimore: Johns Hopkins University Press.
- Gleditsch, N.P., 1998. Armed Conflict and the Environment: A Critique of the Literature. *Journal of Peace Research*, 35 (3), 381–400.
- Gleditsch, N.P., *et al.*, 2006. Conflicts over shared rivers: Resource scarcity or fuzzy boundaries? *Political Geography*, 25 (4), 361–382.
- Gleick, P.H., 1993. Water and conflict: Fresh water resources and international security. *International Security*, Vol. 18, No. 1 (Summer, 1993), pp. 79-112, 18 (1), 79–112.
- Heathersaw, J., 2010. Central Asian statehood in post-colonial perspective. In: E. Kavalski, ed. *Stable outside, fragile inside?: Post-Soviet statehood in central Asia*. Farnham, Surrey, Burlington, VT: Ashgate Pub., 87–101.
- Heltzer, G.E., 2003. Stalemate in the Aral Sea Basin: Will Kyrgyzstan's new water law bring the downstream nations back to the multilateral bargaining table? *Georgetown international environmental law review*, 15 (291).
- Hoffmann, S., 1972. Weighing the Balance of Power. *Foreign affairs* (July).
- Homer-Dixon, T.F., 1994. Environmental Scarcities and Violent Conflict: Evidence from Cases. *International Security*, 19 (1), 5–40.
- Hopf, T., 1998. The Promise of Constructivism in International Relations Theory. *International Security*, 23 (1), 171–200.
- Horsman, S., 1999. Uzbekistan's involvement in the Tajik civil war 1992-97: Domestic considerations. *Central Asian Survey*.

- Huntington, S.P., 1999. The lonely superpower. *Foreign affairs* (March/April).
- Jalilova, S.-M., Amerb, S.A., and Warda, F.A., 2013. Reducing conflict in development and allocation of transboundary rivers. *Eurasian Geography & Economics*, 54 (1), 78–109., 54 (1), 78–109.
- Jarvis, T., and Wolf, A., 2010. Managing Water Negotiations and Conflicts in Concept and in Practice. In: Earle et al. (eds.): *Transboundary Water Management*, Stockholm International Water Institute (SIWI).
- Julien, F., 2010. L'eau dans les relations internationales: La guerre ou la paix ? D'un déterminisme à l'autre. *Dynamiques Internationales* (2), 1–32, 2, 1–32.
- Julien, F., 2012. Hydropolitics is what societies make of it (or why we need a constructivist approach to the geopolitics of water). *Int. J. Sustainable Society*, Vol. 4, Nos. 1/2, 2012, 4 (1/2), 45–71., 4 (1/2), 45–71.
- Kaika, M., 2006. Dams as Symbols of Modernization: The Urbanization of Nature Between Geographical Imagination and Materiality. *Annals of the Association of American Geographers*, 96 (2), 276–301.
- Katzenstein, P.J., Keohane, R.O., and Krasner, S.D., 1998. International organization and the Study of World Politics. *International Organization*, 52 (4), 645–685.
- Kemelova, D. and Zhalkubaev, G., 2003. Water conflict and security in Central Asia revisited. *N.Y.U. Environmental Law Journal*, 11, 479–502.
- Keohane, R.O., 1991. The United States and the Postwar Order: Empire or Hegemony? *Journal of Peace Research*, 28 (4), 435–439., 28 (4), 435–439.
- Keucheyan, R., 2012. Gramsci, une pensée devenue monde. *Le Monde Diplomatique*, N. 700 – July 2012. (700).
- Klotzli, S., 1994. The Water and Soil Crisis in Central Asia - a Source for Future Conflicts? *Environment and Conflict Project (ENCOP)*, , May., Occasional Paper No. 11.
- Kolbasov, O.S., 1987. Environmental Policy and Law in the USSR. *Environmental Law Reporter*, 17 (1).
- Kramer, M., 2003. Special Issue: The Collapse of the Soviet Union (Part I) Introduction. *Journal of Cold War Studies*, 5 (1), 3–16.
- Le Billion, P., 2001. The political ecology of war: natural resources and armed conflicts. *Political Geography*, 20, 561–584.

- Lewis, D., 2008. The dynamics of regime change: domestic and international factors in the 'Tulip Revolution'. *Central Asian Survey*, 27 (3-4), 265–277.
- Lewis, L., 2007. Water Shortages Are Likely to be Trigger for Wars, Says UN Chief Ban Ki Moon. *The Times*, 4 Dec.
- Libert, B., Orolbaev, E., and Steklov, Y., 2008. Water and Energy Crisis in Central Asia. *China and Eurasia Forum Quarterly*, 6 (3), 9–20.
- Lukes, S., 2005a. Power and the Battle for Hearts and Minds. *Millennium - Journal of International Studies*, 33 (3), 477–493.
- Matley, I.M., 1967. Agricultural Development (1865-1963). In: E.A. Allworth, ed. *Central Asia: One Hundred Thirty Years of Russian Dominance, A Historical Overview*: Duke University Press Books.
- Matveeva, A., 2009. Legitimising Central Asian Authoritarianism: Political Manipulation and Symbolic Power. *Europe-Asia Studies*, 61 (7), 1095–1121.
- McCaffrey, S.C., 1996. The Harmon Doctrine one hundred years later: Buried, nor praised. *Natural Resources Journal*, 36, 549–590.
- Mellon, J.G., 2010. Myth, Legitimacy and Nationalism in Central Asia. *Ethnopolitics*, 9 (2), 137–150.
- Menga F., 2012. Water agreements in Central Asia: an overview. In: *Proceedings of the 14th IP-Seminar Geography of Water, July, 15 -25, 2011*. Cagliari, CUEC.
- Menga F., 2013. Regional Water Dialogue in a Changing Political Environment: The Amu Darya Basin. *Romanian Review of Eurasian Studies*, Year IX, Nr. 1-2/2013.
- Micklin, P., 2007. The Aral Sea Disaster. *Annual Review of Earth and Planetary Sciences*, 35 (1), 47–72.
- Mirumachi, N. and Allan, J.A., 2007. Revisiting Transboundary Water Governance: Power, Conflict, Cooperation and the Political Economy. *CAIWA conference paper*.
- Mirumachi, N., 2007. Fluxing Relations in Water History: Conceptualizing the Range of Relations in Transboundary River Basins. *CD-R Proceedings of the 5th International Water History Association Conference—Past and Futures of Water, Tampere, Finland*, 13-17 June.

- Mirumachi, N., 2013. Securitising shared waters: an analysis of the hydropolitical context of the Tanakpur Barrage project between Nepal and India. *The Geographical Journal*, 179 (4), 309–319.
- Molle, F., Mollinga, P.P., and Wester, P., 2009. Hydraulic bureaucracies: Flows of water, flows of power. *Water Alternatives*, 2 (3), 328–349.
- Moller, L.C., 2009. Transboundary Water Conflicts over Hydropower and Irrigation: Can Multilateral Development Banks Help? *CREDIT (Centre for Research in Economic Development and International Trade) Research Paper, University of Nottingham* (5).
- Mollinga, P.P., 2001. Water and politics: levels, rational choice and South Indian canal irrigation. *Futures*, 33 (8–9), 733–752. Available from: <http://www.sciencedirect.com/science/article/pii/S0016328701000167>.
- Mosello, B., 2008. Water in Central Asia: A Prospect of Conflict or Cooperation? *Journal of Public and International Affairs*, Volume 19, 151–174.
- Mouffe, C., 2008. Critique as Counter-Hegemonic Intervention. *European Institute for Progressive Cultural Policies (EIPCP)*, 04. Available from: <http://eipcp.net/transversal/0808/mouffe/en>.
- Müller, M., 2010. Doing discourse analysis in Critical Geopolitics. *L'Espace Politique*, 12 (3).
- Murzakulova, A. and Schoeberlein, J., 2009. The Invention of Legitimacy: Struggles in Kyrgyzstan to Craft an Effective Nation-State Ideology. *Europe-Asia Studies*, 61 (7), 1229–1248.
- Neumann, I.B., 1998. Identity and the outbreak of war, or why the Copenhagen School of Security Studies should include the idea of "violisation" in its framework of analysis. *The International Journal of Peace Studies*, 3 (1).
- Nye, J.S., 2004. Soft power and American foreign policy. *Political Science Quarterly*, 119 (2), 255–270.
- O'Hara, S., 2000. Central Asia's Water Resources: Contemporary and Future Management Issues. *Water Resources Development*, Vol. 13, No. 3, 279± 289, 1997, 16 (3), 423–441.
- O'Hara, S., 2004. Central Asians divided over use of dwindling water supply. *Open Society Foundation Local Governance Brief*, Summer.

- Olcott, M.B., 2010. Central Asia's Oil and Gas Reserves: To Whom Do They Matter? *Global Journal of Emerging Market Economies*, 2 (3), 257–300.
- Onuf, N.G., 1998. Constructivism: A user's manual. In: Vendulka Kubáľková, Nicholas Onuf, Paul Kowert, eds., *International relations in a constructed world*. M.E. Sharpe.
- Phillips, A. and James, P., 2001. National Identity between Tradition and Reflexive Modernisation: The Contradictions of Central Asia. *National Identities*, 3 (1), 23–35.
- Postel, S. and Wolf, A., 2001. Dehydrating conflict. *Foreign policy*, 1 September.
- Radnitz, S., 2006. What Really Happened in Kyrgyzstan? *Journal of Democracy*; Apr 2006; 17, 2, 17 (2), 132–146.
- Rahaman, M.M. and Varis, O., 2005. Integrated water resources management: evolution, prospects and future challenges. *Sustainability: Science, Practice, & Policy* 1(1):15-21., 1 (1), 15–21.
- Rahimov, S., 2009. Impacts of climate change on water resources in Central Asia. *Proceedings of the workshop "Water resources management in Central Asia: regional and international issues at stake"*. Documentos CIDOB, Asia 25, 33–56.
- Rakhmatullaev, S., et al., 2010. Facts and Perspectives of Water Reservoirs in Central Asia: A Special Focus on Uzbekistan. *Water*, 2 (2), 307–320.
- Reus-Smit, C., 2001. Constructivism. In: S. Burchill, ed. *Theories of international relations*. 2nd ed. Houndmills [etc.]: Palgrave.
- Rieu-Clarke, A. Should we care whether the UN Watercourses Convention enters into force? *International Water Law Project Blog* . Available from: <http://www.internationalwaterlaw.org/blog/2012/07/22/should-we-care-whether-the-un-watercourses-convention-enters-into-force-part-ii/> [Accessed 5 Oct 2012].
- Rosario, T.C.-D., 2009. Risky riparianism: cooperative water governance in Central Asia. *Australian Journal of International Affairs*, 63 (3), 404–415.
- Sakiev, B., 2009. Land and Water Management patterns in Ferghana Valley. *Proceedings of the workshop "Water resources management in Central Asia: regional and international issues at stake"*. Documentos CIDOB, Asia 25, 77–92.

- Salman, S.M., 2007. The United Nations Watercourses Convention ten years later: Why has its entry into force proven difficult? *Water international* ; vol. 32, no. 1 (March 2007).
- Schmidt, R., 2007. Feasibility study for completion of the Rogun scheme, Tajikistan. *Hydropower & Dams* (3).
- Searle, J.R., 1975. A taxonomy of illocutionary acts. *Studies in the Philosophy of Science*, 344–369.
- Sievers, E.W., 2002. Water, Conflict and Regional Security in Central Asia,. *N.Y.U. Envtl. L.J.*, 10, 356–372.
- Smith, D.R., 1995. Environmental Security and Shared Water Resources in Post-Soviet Central Asia. *Post-Soviet Geography*, 36 (6), 351–370.
- Sneddon, C. and Fox, C., 2006. Rethinking transboundary waters: A critical hydrogeopolitics of the Mekong basin. *Political Geography*, 25 (2), 181–202.
- Sojamo, S., 2008. Illustrating Co-existing Conflict and Cooperation in the Aral Sea Basin with TWINS Approach. In: M.M. Rahaman and O. Varis, eds. *Central Asian waters: Social, economic, environmental and governance puzzle*. Espoo: Helsinki University of Technology.
- Spoor, M. and Krutov, A., 2003. The 'power of water' in a divided Central Asia. *Perspectives on global development and technology*, 2 (3-4), 593–614.
- Starr, J., 1991. Water wars. *Foreign policy*. -, 82, 17–36.
- Stone, R., 2008. A New Great Lake—or Dead Sea? *American Association for the Advancement of Science Magazine*, 320, 1002–1005.
- Strange, S., 1989, 2002. Toward a Theory of Transnational Empire. In: R. Tooze and C. May, eds. *Authority and markets: Susan Strange's writings on international political economy*. Houndmills, Basingstoke, Hampshire, New York: Palgrave/Macmillan.
- Strange, S., 1990. Finance, information and power. *Review of international studies*, 16 (3), 259–274.
- Strange, S., 1994, 2002. Who governs? Networks of power in world society. In: R. Tooze and C. May, eds. *Authority and markets: Susan Strange's writings on international political economy*. Houndmills, Basingstoke, Hampshire, New York: Palgrave/Macmillan.

- Strauss, A. and Corbin, J., 1994. Grounded theory methodology: an overview. *In: Denzin and Lincoln, eds. Handbook of Qualitative Research*. SAGE Publications, Inc.
- Swartz, D.L., 2007. Recasting power in its third dimension. *Theory and Society*, 36 (1), 103–109.
- Swyngedouw, E., 1999. Modernity and Hybridity: Nature, Regeneracionismo, and the Production of the Spanish Waterscape, 1890-1930. *Annals of the Association of American Geographers*, Vol. 89, No. 3 (Sep., 1999), pp.443-465, 89 (3), 443–465.
- Swyngedouw, E., 2006. Power, Water and Money: Exploring the Nexus. *United Nations Human Development Report, Occasional Paper 2006/14*.
- Thorez, J. and Thorez, P., 2004. Le partage des eaux dans le Caucase oriental et les républiques d'Asie centrale. *Cahiers d'Asie centrale*, 13/14.
- Toset, H. P. W., Gleditsch, N.P., and Hegre, H., 2000. Shared rivers and interstate conflict. *Political Geography* 19 (2000) 971–996, 19, 971–996.
- Tuchman Mathews, J., 1989. Redefining Security. *Foreign affairs*, 68 (2), 162–177.
- Turton A. and Funke N., 2008. Hydro-hegemony in the context of the Orange River Basin. *Water Policy*, 10 (2), 51–69.
- Urdal, H., 2005. People vs. Malthus: Population Pressure, Environmental Degradation, and Armed Conflict Revisited. *Journal of Peace Research*, 42 (4), 417–434.
- Van Dijk, T. A., 1993. Principles of critical discourse Analysis. *Discourse Society* 1993 4:, 4, 249–283.
- Verzijl, J. H. W, Heere, W.P., and Offerhaus, J. P. S, 1970 (Volume 3). *International law in historical perspective*. Leyden: A. W. Sijthoff.
- Vinogradov, S. and Langford, V., 2001. Managing transboundary water resources in the Aral Sea Basin: In search of a solution. *Int. J. Global Environmental Issues*, 1 (3/4), 345–362.
- Wæver, O., 1995. *Securitization and desecuritization*. In: On Security. Edited by Ronnie Lipschutz, 46–86: New York: Columbia University Press.
- Waltz, Kenneth, N., 1986. Reflections on Theory of International Politics: A Response to My Critics. *In: R.O. Keohane, ed. Neorealism and its critics*. 378th ed.: Nueva York, EUA : Columbia University.

- Warner, J., 2004. Water, Wine, Vinegar, Blood: On Politics, Participation, Violence and Conflict Over the Hydrosocial Contract. *World Water Council, ed. Proceedings of the Workshop on Water and Politics: Understanding the Role of Politics in Water Management, Marseille, 26-27 February, 2004. Marseille: World Water Council, 7–18.*
- Warner, J.F. and Zeitoun, M., 2008. International relations theory and water do mix: A response to Furlong's troubled waters, hydro-hegemony and international water relations. *Political Geography, 27 (7), 802–810.*
- Waterbury, J., 1997. Between Unilateralism and Comprehensive Accords: Modest Steps toward Cooperation in International River Basins. *Water Resources Development, Vol. 13, No. 3, 279± 289, 1997, 13 (3), 279–289.*
- Wegerich, K., 2002. Natural drought or human made water scarcity in Uzbekistan? *Central Asia and the Caucasus, 14 (2).*
- Wegerich, K., 2003. Water. The Difficult Path to a Sustainable Future for Central Asia. In: T. Everett-Heath, ed. *Central Asia: Aspects of transition.* London, New York: RoutledgeCurzon, 244–263.
- Wegerich, K., 2008. Hydro-hegemony in the Amu Darya Basin. *Water Policy, 10 (2), 71–88.*
- Wegerich, K., 2009. Politics of Water in Post-Soviet Central Asia. *Routledge Europa Regional Surveys of the World: Eastern Europe, Russia and Central Asia.*
- Wegerich, K., Olsson, O., and Froebrich, J., 2007. Reliving the past in a changed environment: Hydropower ambitions, opportunities and constraints in Tajikistan. *Energy Policy, 35 (7), 3815–3825.*
- Weinthal, E., 2001. Sins of Omission: Constructing Negotiating Sets in the Aral Sea Basin. *The Journal of Environment & Development, 10 (1), 50–79.*
- Weinthal, E., 2004. Beyond the State: Transnational Actors, NGOs, and Environmental Protection in Central Asia. *Transformation of Central Asia : States and Societies from Soviet Rule to Independence / ed. by Pauline Jones Luong, ISBN 9780801488429.*
- Weinthal, E., 2006. Water Conflict and Cooperation in Central Asia. *UN Human Development Report 2006 - Occasional paper.*
- Wester, P., 2009. Capturing the waters: the hydraulic mission in the Lerma-Chapala Basin, Mexico (1876-1976). *Water History 1 (2009) 1, 1 (1), 9–29.*

- Wickström, L., 2010. Islam and Water: Islamic Guiding Principles on Water Management. In: M. Luomi, ed. *Managing Blue Gold: New Perspectives on Water Security in the Levantine Middle East*. Helsinki: Finnish Institute of International Affairs (FIIA).
- Wiehen, M.H., 1999. *Transparency and Corruption on Building Large Dams: Contributing paper to the World Commission on dams* .
- Wolf, A.T., 1999. Criteria for Equitable Allocations: The Heart of International Water Conflict. *Natural Resources Forum*. Vol. 23 #1, February 1999. pp. 3-30., 23 (1), 3–30.
- Wolf, A.T., 2007. Shared Waters: Conflict and Cooperation. *Annual Review of Environment and Resources*, 32 (1), 241–269.
- Wolf, A.T. and Hamner, J.H., 2000. Trends in Transboundary Water Disputes and Dispute Resolution. *Environment and Security : Discourses and Practices / ed. by Miriam R. Lowi and Brian R. Shaw, ISBN 0333731670*.
- Wolf, A.T., et al., 1999a. International river basins of the world. *Int. J. Water Resour. Dev.*, 15 (4), 387–427.
- Wolf, A.T., et al., 2006. Water Can Be a Pathway to Peace, Not War. *Woodrow Wilson International Center for Scholars*, 1.
- Woodhouse M. and Zeitoun M., 2008. Hydro-hegemony and international water law: grappling with the gaps of power and law. *Water Policy*, 10 (2), 103–119.
- Yoffe, S.B., Wolf, A.T., and Giordano, M., 2003. Conflict and Cooperation Over International Freshwater Resources: Indicators of Basins at Risk. *International Freshwater Resources: Indicators of Basins at Risk. Journal of the American Water Resources Association*, 39(5), 1109-1126., 39 (5), 1109–1126.
- Zeitoun M. and Allan J.A., 2008. Applying hegemony and power theory to transboundary water analysis. *Water Policy*, 10 (2), 3–12.
- Zeitoun, M. and Mirumachi, N., 2008. Transboundary water interaction I: reconsidering conflict and cooperation. *International Environmental Agreements: Politics, Law and Economics*, 8 (4), 297–316.
- Zeitoun, M. and Warner, J., 2006. Hydro-hegemony – a framework for analysis of transboundary water conflicts. *Water Policy*, 8 (5), 435.

- Zeitoun, M., 2007. Violations, Opportunities and Power along the Jordan River: Security Studies Theory Applied to Water Conflict. *In: H. Shuval and H. Dweik, eds. Water Resources in the Middle East*. Berlin, Heidelberg: Springer Berlin Heidelberg, 213–223.
- Zeitoun, M., Mirumachi, N., and Warner, J., 2011. Transboundary water interaction II: the influence of ‘soft’ power. *International Environmental Agreements: Politics, Law and Economics*, 11 (2), 159–178.

3. Doctoral and master theses

- Allouche, J., 2005. *Water nationalism: an explanation of the past and present conflicts in Central Asia, the Middle East and the Indian subcontinent?* Doctoral thesis. Université de Genève.
- Féaux de la Croix, J., 2010. *Moral Geographies in Kyrgyzstan: How pastures, dams and holy sites matter in striving for a good life*. Doctoral thesis. University of St Andrews.
- Hamner, J.H., 2008. *Until the Well is Dry: International Conflict and Cooperation over Scarce Water Resources*. Doctoral thesis. Emory University.
- Jägerskog, A., 2003. *Why states cooperate over shared water: The water negotiations in the Jordan River Basin*. Doctoral thesis. Linköping University.
- Kraak, E.P., 2012. *Dams of Damocles: Between rivers, states, and geopolitics*. Doctoral thesis. University of Oxford.
- Mirumachi, N., 2010. *Study of conflict and cooperation in international transboundary river basins: the TWINS framework*. Doctoral thesis. King's College.
- Shalpykova, G., 2002. *Water Disputes in Central Asia: The Syr Darya River Basin*. Master thesis. International University of Japan.
- Turton, A., 2003. *The political aspects of institutional developments in the water sector: South Africa and its international river basins*. Doctoral thesis. University of Pretoria.

4. Reports and Policy Briefs from International Organizations, Governmental Agencies and Think Tanks

- Asian Development Bank, 2013. Power Sector Rehabilitation Project 44198-013. *Project datasheet*.

- Bureau of Democracy, Human Rights and Labor, 2011. *2010 Human Rights Reports: Tajikistan*. Washington, D.C.: U.S. Government Printing Office.
- Bureau of Human Rights and Rule of Law, 2012. *Report on relocation cases study results*. Dushanbe
- Cagnat, R., 2001. The tide turns in Central Asia. *The UNESCO Courier*, October, 28–29.
- Eurasian Development Bank (EDB), 2008. *Water and Energy Resources in Central Asia: Utilization and Development Issues*. Industry report.
- European Bank for Reconstruction and Development, 2009. Transition Report. *European Bank for Reconstruction and Development*.
- Food and Agriculture Organization of the United Nations, 1983. *Water Law in Selected European Countries (Cyprus, Finland, the Netherlands, Union of Soviet Socialist Republics, Yugoslavia) - V.2*.
- Fumagalli, M., 2008. The 'Food-Energy-Water' Nexus in Central Asia: Regional Implications of and the International Response to the Crises in Tajikistan. *EUCAM Policy Brief*, 2.
- Granit, J., et al., 2010. *Regional Water Intelligence Report Central Asia: Baseline Report*. Stockholm: Stockholm International Water Institute (SIWI).
- Hodgson, S., 2010. Strategic Water Resources in Central Asia: In search of a new international legal order. *EUCAM Policy Brief*, 14.
- International Commission on Large Dams. n.d. "Register of Dams. Available from: http://www.icold-cigb.net/GB/World_register/general_synthesis.asp?IDA=207 [Accessed 7 Jun 2012].
- International Crisis Group (ICG), 2001. *Tajikistan: An uncertain peace*. Osh, Brussels.
- International Crisis Group (ICG), 2002. *Central Asia: water and conflict*. Brussels.
- International Crisis Group (ICG), 2007. *Central Asia's energy risks*. Brussels.
- International Crisis Group (ICG), 2010. Kyrgyzstan: A Hollow Regime Collapses. *Asia Briefing*, 102.
- International Crisis Group (ICG), 2011. *Central Asia: decay and decline*. Brussels.
- International Labour Organization, 2010. *Migration and development in Tajikistan: Return and diaspora*. Moscow: ILO.

- International Monetary Fund, 2010. *Tajikistan: First and Second Review Under the Three-Year Arrangement Under the Extended Credit Facility, Request for Waiver of Performance Criteria, and Request for Augmentation of the Arrangement*. Washington D.C.: IMF Country Report No. 10/203.
- IWMI, International Water Management Institute, 1998. *Annual Report*.
- Juraev, S., 2010. Back on Track? Kyrgyz Authoritarianism after the Tulip Revolution. *PONARS Eurasia Policy Memo No. 95*.
- PA Consortium Group, 2004. Proposals for improved water and energy management in the Syr Darya river basin. *U.S. Agency for International Development Regional Mission for Central Asia*.
- Stevenson, S., 2011. *Central Asia – an environmental cauldron*: OSCE.
- Tetra Tech, 2011. *Final Report on Project Activities of Kyrgyzstan Energy Advisory Services*: USAID.
- The Inspection Panel, 2010. *Report and Recommendation On Request for Inspection: TAJIKISTAN: Energy Loss Reduction Project (Rogun HPP) (Credits Nos. 40930-TJ and H1780-TJ)*: The World Bank.
- The World Bank, 1997. Kazakhstan-Syrdarya Control and Northern Aral Sea Project. The World Bank Public Information Center.
- The World Bank, 2004. *Water And Energy Nexus In Central Asia: Improving Regional Cooperation in the Syr Darya Basin*. Washington, DC: Europe and Central Asia Region, The World Bank.
- The World Bank, 2012. Tajikistan's Winter Energy Crisis: Electricity Supply and Demand Alternatives. Washington, November 2012.
- The World Bank, 2013. Third Riparian Meetings on Rogun Assessment Studies. 13 Feb. Available from: <http://www.worldbank.org/en/news/press-release/2013/02/13/third-riparian-meetings-on-rogun-assessment-studies> [Accessed 20 Feb 2013].
- The World Bank, n.d.a. Tajikistan. Available from: <http://www.worldbank.org/en/country/tajikistan> [Accessed 5 July 2012].
- The World Bank, nd.b. Assessment Studies for Proposed Rogun Regional Water Reservoir and Hydropower Project in Tajikistan. Available from: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/0,,contentM>

DK:22743325~pagePK:146736~piPK:146830~theSitePK:258599,00.html [Accessed 5 March 2013).

The World Bank, nd.c. Tajikistan's Winter Energy Crisis: Electricity Supply and Demand Alternatives. Available from: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/0,,contentM> DK:23319658~pagePK:146736~piPK:146830~theSitePK:258599,00.html [Accessed 6 July 2012].

Transparency International, 2008. *Global Corruption Report 2008: Corruption in the Water Sector*: Transparency International.

UNDP Bureau for Europe and CIS, 2011. Energy water and communal services in Kyrgyzstan and Tajikistan.

UNDP, 2006. *Human development report 2006: Beyond scarcity : power, poverty and the global water crisis*. Basingstoke, New York: Palgrave Macmillan.

UNEP, 2011. *Environment and Security in the Amu Darya Basin*. July 2011.

US Senate, 2011. *Avoiding water wars: water scarcity and Central Asia's growing importance for stability in Afghanistan and Pakistan*.

Zozulinsky, A., 2010. Kyrgyzstan: Power Generation & Transmission. *US Embassy Bishkek*.

5. Agreements, Legal Instruments and Resolutions

Agreement between Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan, and Republic of Uzbekistan on joint activities in addressing the Aral Sea and the zone around the Sea crisis, improving the environment, and enduring the social and economic development of the Aral Sea region, 1993. Available from: <http://www.icwc-aral.uz/statute13.htm> [Accessed 10 Feb 2012]

Agreement Between the Government of the Republic of Kazakhstan and the Government of the Kyrgyz Republic on Comprehensive Use of Water and Energy Resources of the Naryn Syr Darya Cascade Reservoirs in 1999. Available from: <http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/Annual-KzKg-99.pdf> [Accessed 8 Jun. 2012].

Agreement Between The Government of the Republic of Kazakhstan And The Government of the Kyrgyz Republic On the Use of Water and Energy Resources of the Naryn – Syr Darya Cascade of Reservoirs in 2000. Available from: <http://www.ce.utexas.edu/prof/mckinney/papers/aryl/agreements/Annual-KzKg-00.pdf> [Accessed 4 May 2012].

Agreement Between the Government of the Republic of Kazakhstan, the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on Joint and Complex Use Water and Energy Resources of the Naryn Syr Darya Cascade Reservoirs in 1998. Available from: <http://www.ce.utexas.edu/prof/mckinney/papers/aryl/agreements/Annual-Operation-98.pdf> [Accessed 7 Mar. 2012].

Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan and the Republic of Uzbekistan on co-operation in interstate sources' water resources use and protection common management, 1992. Available from: <http://www.icwc-aryl.uz/statute1.htm> [Accessed 10 Feb 2012].

Decree 1110 “Measures for Radical Improvement of Ecological and Sanitary Situation in the Region of the Aral Sea, Enhancing the Efficiency and Use to Strengthen the Protection of the Water and Land Resources in its Basin”. Moscow, 1988.

FAO, 1978. Systematic index of international water resources treaties, declarations, acts and cases by basin. *FAO legislative study*, Vol. 1 (Issue 15).

FAO, 1984. Systematic index of international water resources treaties, declarations, acts and cases by basin. *FAO legislative study*, Vol. 2 (Issue 34).

Intergovernmental Protocol Between the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on Use of the Naryn-Syr Darya Water and Energy Resources in 2000 16 March 2000, Osh, Kyrgyzstan. Available from: <http://www.ce.utexas.edu/prof/mckinney/papers/aryl/agreements/Annual-UzKg-00.pdf> [Accessed 7 Apr. 2012].

Legislative Assembly of the Kyrgyz Republic, 2001. *The Law of the Kyrgyz Republic On Inter-State Use of Water Objects, Water Resources and Water Economy Constructions in the KR*. Available from: <http://faolex.fao.org/docs/texts/kyr26809.doc> [Accessed 6 Apr 2012].

Ministry of Economy of the Kyrgyz Republic, 2011. *Regulation of specific industries*. Available from: http://www.mineconom.kg/index.php?option=com_content&view=article&id=2045:123&catid=378&Itemid=667&lang=en [Accessed 3 May 2012].

Protocol 566 “Improvement of the Scheme on Complex Use and Protection of Amu-Darya Water Resources by Scientific & Technical Council, Ministry of Land Reclamation and Water Management of the USSR”. Moscow, September 10, 1987.

Protocol 413 “Improvement of Scheme of Complex Use and Protection of Water Resources of Syr-Darya Basin”. Moscow, February 7, 1984.

Protocol on Inserting Amendments and Addenda in the Agreement Between the Governments of the Republic of Kazakhstan, the Kyrgyz Republic, and the Republic of Uzbekistan on the Use of Water and Energy Resources of the Syr Darya Basin, of 17 March 1998 Available from: <http://www.ce.utexas.edu/prof/mckinney/papers/ara/agreements/SyrDaryaAmm-Jun-99.pdf> [Accessed 15 May 2012].

Statement of heads of water economy organizations of Central Asian Republics and Kazakhstan adopted on 10-12 October 1991 meeting in Tashkent, 1991. Available from: <http://www.icwc-ara.uz/statute2.htm> [Accessed 10 Feb 2012].

Supreme Soviet of the USSR, Ninth Convocation, 1977. *Constitution (Fundamental Law) of The Union of Soviet Socialist Republics (Konstituutsiya (Osnovnooy Zakon) Soyuzu Sovetskikh Sotsialisticheskikh Respublik)*.

The Dublin Statement on Water and Sustainable Development, 1992. Dublin, Ireland: International Conference on Water and the Environment.

United Nations Conference on Succession of States in Respect of Treaties, 1978. *Vienna Convention of Succession of States in respect of treaties*. New York: United Nations.

United Nations Conference on the Human Environment, 1972. *Declaration on the human environment*. Stockholm: UNEP.

United Nations General Assembly, 1995. *Maintenance of international security, Permanent neutrality of Turkmenistan: A/RES/50/80*.

United Nations, 1997. *Convention on the Law of the Non-navigational Uses of International Watercourses [adopted by the UN General Assembly and opened to signature, may 21, 1997]*.

United Nations, 2013a. Convention on the Law of the Non-Navigational Uses of International Watercourses. *United Nations Treaty Collection*. Available from: http://treaties.un.org/Pages/ViewDetails.aspx?src=UNTSO&tabid=2&mtdsg_no=XXVII-12&chapter=27&lang=en#Participants [Accessed 5 Apr 2012].

United Nations, 2013b. Convention on the Protection and Use of Transboundary Watercourses and International Lakes. *United Nations Treaty Collection*. Available from: http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-5&chapter=27&lang=en [Accessed 5 Apr 2012].

6. Speeches, Official Documents and Open Letters

Akilov, A., 2010. *Ofitsialnyy otvet pravitelstva Respubliki Tadjikistan na pismo Premyer-Ministra Uzbekistana*. Dushanbe.

Alimov, R., 2000. *Statement by the Permanent Representative of the Republic of Tajikistan to the United Nations H.E. Mr. Rashid Alimov at the 55th Session of the UN General Assembly*. New York.

Alimov, R., 2001. *Statement by the Permanent Representative of the Republic of Tajikistan to the United Nations H.E. Mr. Rashid Alimov at the 56th Session of the UN General Assembly*. New York.

Aslov, S., 2007. *Statement by the Permanent Representative of the Republic of Tajikistan to the United Nations H.E. Mr. Sirodjidin Aslov at the 62nd Session of the UN General Assembly*. New York.

Bakiev, K., 2005. *Statement of H.E. Mr. K. Bakiev, The President of the Kyrgyz Republic, at the General Debate of the 60th Session of the General Assembly, 17 Sep.*

Bakiev, K., 2009. *Statement by H.E. Mr. Kurmanbek Bakiev, President of the Kyrgyz Republic at the Meeting of Heads of the States-Founders of the International Fund for Saving the Aral Sea (IFAS)*. Almaty.

Chudinov, I., 2009. *Statement of H.E. Mr. Igor Chudinov, the Prime Minister of the Kyrgyz Republic on the General Debates of the 64th session of the General Assembly*. New York.

- Dosbol, N.U., 2008. *Statement of H.E. Mr. Nur Uulu Dosbol, State Secretary of the Kyrgyz Republic, at the General Debate of the 63th Session of the General Assembly*. New York.
- Ganiev, E., 2011. *Statement by His Excellency Mr. Elyor Ganiev, Deputy Prime Minister, Minister of Foreign Affairs of the Republic of Uzbekistan, at the General Debate of the 66th session of the United Nations General Assembly*. New York.
- Ibraimova, E., 2000. *Statement of H.E. Ms. Elmira Ibraimova, Permanent Representative of the Kyrgyz Republic to the UN, on the General Debates of the 54th session of the General Assembly*. New York.
- Kalmambetov, A., 2010. *Energy Sector of the Kyrgyz Republic: Presentation delivered in Bishkek at the CAREC institute*. Bishkek.
- Kamilov, A., 2012. *Statement by His Excellency Mr. Abdulaziz Kamilov, Minister of Foreign Affairs of the Republic of Uzbekistan, at the General Debate of the 67th session of the United Nations General Assembly*. New York.
- Karabaev, E., 2007. *Statement of H.E. Mr. Ednan Karabaev, Minister of Foreign Affairs of the Kyrgyz Republic on the General Debates of the 62nd session of the General Assembly*. New York.
- Karimov, I., 2010. *Address by H.E. Mr. Islam Karimov, President of the Republic of Uzbekistan, at the Plenary Session of the UN Millennium Development Goals Summit*. New York.
- Ministry of Finance of Tajikistan, 2009. *Obsuzhdeniya: Ob aktsiyakh i Sertifikatakh aktsiy OAO Rogunskaya GES*.
- Mirziyoyev, S., 2007. *Letter to Mr. Akil Akilov, The Prime Minister of the Republic of Tajikistan*.
- Mission of Uzbekistan to the E.U., 2010. *The Rogun reservoir in Tajikistan can provoke an earthquake*. Available from: <http://www.uzbekistan.be/Aral/10.html> [Accessed 7 Janury 2012].
- Nazarov, T., 2002. *Statement by the Minister of Foreign Affairs of the Republic of Tajikistan H.E. Mr. Talbak Nazarov at the 57th Session of the UN General Assembly*. New York.

- Nazarov, T., 2004. *Statement by the Minister of Foreign Affairs of the Republic of Tajikistan Academician Talbak Nazarov at the 59th Session of the UN General Assembly*. New York.
- Nazarov, T., 2005. *Statement by the Minister of Foreign Affairs of the Republic of Tajikistan Academician Talbak Nazarov at the 60th Session of the UN General Assembly*. New York.
- Nematov, I., 2007. *Statement by the Head of Delegation of the Republic of Uzbekistan at the fifteenth meeting of the OSCE ministerial council*. Madrid.
- Norov, V., 2007. *Statement by His Excellency Vladimir Norov, Minister of Foreign Affairs of the Republic of Uzbekistan, at the General Debate of the 62nd session of the United Nations General Assembly*. New York.
- Norov, V., 2008. *Statement by Mr. Vladimir Norov, Minister of Foreign Affairs of the Republic of Uzbekistan, at the sixteenth meeting of the OSCE ministerial council*. Helsinki.
- Norov, V., 2009a. *Statement by His Excellency Vladimir Norov, Minister of Foreign Affairs of the Republic of Uzbekistan, at the General Debate of the 64th session of the United Nations General Assembly*. New York.
- Norov, V., 2009b. *Statement by the Head of Delegation of the Republic of Uzbekistan at the 17th OSCE Ministerial Council meeting*. Athens.
- Rahmon E., 1999. *Statement by the President of the Republic of Tajikistan H.E. Mr. Emomali Rahmon at the 54th Session of the UN General Assembly*. New York.
- Rahmon E., 2003. *Statement by the President of the Republic of Tajikistan H.E. Mr. Emomali Rahmon at the 58th Session of the UN General Assembly*. New York.
- Rahmon, E., 2008. *Statement by the President of the Republic of Tajikistan H.E. Mr. Emomali Rahmon at the 63rd Session of the UN General Assembly*. New York.
- Rahmon, E., 2009a. *Statement by the President of the Republic of Tajikistan, H. E. Mr. Emomali Rahmon at the 5th World Water Forum*. Istanbul.
- Rahmon, E., 2009b. *Statement by the President of the Republic of Tajikistan H.E. Mr. Emomali Rahmon at the 64th Session of the UN General Assembly*. New York.
- Rahmon, E., 2010a. *Obrashcheniye Prezidenta Respubliki Tadjikistan k Narodu Tadjikistana*. Dushanbe.

- Rahmon, E., 2010b. *Statement by the President of the Republic of Tajikistan H.E. Mr. Emomali Rahmon at the 64th Session of the UN General Assembly*. New York.
- Ryabtsev, A.D., 2003. *10 Years of Regional Collaboration in Shared Water Resources Management of Central Asia*. 3rd World Water Forum, Kyoto.
- The Ecological Movement of Uzbekistan, 2010. Letter of request to the World Bank. Available from: http://siteresources.worldbank.org/EXTINSPECTIONPANEL/Resources/Request_Eng.pdf [Accessed 17 Oct 2012].
- The Ecological Movement of Uzbekistan, 2011. Address of the Ecological Movement of Uzbekistan to the President of the European Parliament, 21 Jun.
- United Nations Secretary-General, 2011. Message on World Water Day 2011. Available from: <http://europeandcis.undp.org/news/show/9FCFE062-F203-1EE9-B6A33C07DC317875> [Accessed 3 Apr 2012].
- U.S. Embassy Astana, 2009. Kazakhstan: Un Preventive Diplomacy Center Head Discusses Regional Water And Energy Cooperation. Available from: <http://wikileaks.org/cable/2009/03/09ASTANA421.html> [Accessed 6 May 2012].
- Yuldoshev, A., 2008. *Statement on behalf of the First Deputy Minister of Foreign Affairs of Tajikistan Abdullo Yuldoshev at the 16th Meeting of Council of Ministers of Foreign Affairs of OSCE*. Helsinki.
- Zarifi, H., 2007. *Statement by the Minister of Foreign Affairs of the Republic of Tajikistan Hamrokhon Zarifi at the 15th OSCE Ministerial Council Meeting*. Madrid.
- Zarifi, H., 2009. *Address by H.E Minister of Foreign Affairs of the Republic of Tajikistan Mr. Hamrokhon Zarifi at the 17th OSCE Ministerial Council Meeting*. Athens.
- Zarifi, H., 2011a. *Statement by H.E. Mr. Hamrokhon Zarifi Minister of Foreign Affairs of the Republic of Tajikistan at the General Debate of the 66th session of the United Nations General Assembly*. New York.
- Zarifi, H., 2011b. *Address by the Minister of Foreign Affairs of the Republic of Tajikistan Mr. Hamrokhon Zarifi at the 18th OSCE Ministerial Council*. Vilnius.
- Zarifi, H., 2011c. *The message from the roof of the world..*
- Zarifi, H., 2012a. *Statement by H.E. Mr. Hamrokhon Zarifi Minister of Foreign Affairs of the Republic of Tajikistan at the General Debate of the 67th session of the United Nations General Assembly*. New York.

Zarifi, H., 2012b. *Statement by His Excellency Hamrokhon Zarifi, Minister for Foreign Affairs of the Republic of Tajikistan, at the nineteenth meeting of the OSCE Ministerial Council*. Dublin.

Zhigarev, S., 2009. *Problems of water resources in the Central Asia: Problems Concerning Construction of the Kambarata Hydropower Station-1 in Kyrgyzstan*. Ministry of Foreign Affairs of the Republic of Uzbekistan.

7. News reports and newspaper articles

Agence France Presse, 2010. Uzbekistan halves energy to Tajikistan: company. 8 Jan.

AKIpress, 2008a. Parliament to ask President to announce construction of Kambarata water power station 2 as all-nation project. 7 May.

AKIpress, 2008b. Five years required to fill in basin of Kambarata-1 water power station, 17 Dec.

AKIpress, 2008c. Lawmaker questions benefit of Russian loan for construction of Kambarata-1 water power station for Kyrgyzstan. 25 Dec.

AKIpress, 2009. Kyrgyz hydroelectric stations in highly seismic zone pose potential threat of cascade-wise destruction - Uzbek Seismology Institute. 24 Sep.

AKIpress, 2011. Uzbekistan opposes Pakistan's plan to import electricity from Tajikistan. 15 Mar.

Avesta News Agency, 2011a. Tajikistan is planning to allocate one billion for the completion of the Rogun. 26 Aug.

Avesta News Agency, 2011b. Murtazayev o stat'ye v «Pravde Vostoka»: «Ne prilichno schitat' chuzhiye den'gi». 14 Oct.

Avesta News Agency, 2011c. Stevenson: "Russia has no right to Rogun". 25 Jul.

Avesta News Agency, 2012. Transit of Turkmen Gas Not Possible through Uzbekistan, - the Prime Minister of Uzbekistan. 4 Apr.

Barber, T., 1993. Winter bites deep into the heart of old republics: Fuel crisis brings worst Christmas in living memory to former Soviet states. *The Independent*, 18 Dec.

BBC Monitoring Central Asia Unit, 1998. Russian premier satisfied with Tajik visit. 14 Jan.

BBC Monitoring Central Asia Unit, 2000. Kazakh government discusses water supplies to southern Regions. Interfax-Kazakhstan news agency, Almaty, in Russian, 2 Nov.

BBC Monitoring Central Asia Unit, 2004. Kyrgyz, Kazakh, Uzbek officials discuss water issues in Tashkent. Source: Kyrgyz Radio first programme, Bishkek, in Russian, 16 Jul.

BBC Monitoring Central Asia Unit, 2007a. Kyrgyz paper says sides agreed on disputed areas at talks with Tajik leader. Komsomolskaya Pravda v Kyrgyzstane, Bishkek, in Russian, 21 Sep.

BBC Monitoring Central Asia Unit, 2007b. Kazakhstan, Russia to build hydroelectric power stations in Kyrgyzstan. AKIpress news agency website, Bishkek, in Russian, 15 Mar.

BBC Monitoring Central Asia Unit, 2009a. Tajikistan to go ahead with construction of power plant - official. 27 Jan.

BBC Monitoring Central Asia Unit, 2009b. Tajikistan offended by Russian leader's remarks on water use in region - paper. 11 Feb.

BBC Monitoring Central Asia Unit, 2009c. Iran to take part in construction of Tajik power plant. 6 Feb.

BBC Monitoring Central Asia Unit, 2009d. Kyrgyz ex-minister says president to be responsible for 2bn Russian loan. AKIpress news agency website, Bishkek, in Russian, 15 Jan.

BBC Monitoring Central Asia Unit, 2009e. Kyrgyz government cannot afford to fund major hydropower project - official. AKIpress news agency website, Bishkek, in Russian, 26 Oct.

BBC Monitoring Central Asia Unit, 2009f. Key hydropower project unfeasible without foreign help - Kyrgyz opposition MP. 7 Oct.

BBC Monitoring Central Asia Unit, 2009g. Kyrgyz leader says neighbours to benefit from new power plant. 23 Dec.

BBC Monitoring Central Asia Unit, 2009h. Kyrgyz leader aims to run for another term in office - FULLER. Kyrgyz Radio first programme, Bishkek, in Kyrgyz and Russian; Kyrgyz Television 1, Bishkek, in Kyrgyz and Russian, 11 Feb.

BBC Monitoring Central Asia Unit, 2009i. Kyrgyz president rebuked for unscheduled remarks at Aral Sea summit. AKIpress news agency website, Bishkek, in Russian, 28 Apr.

BBC Monitoring Central Asia Unit, 2009l. Uzbek, Turkmen leaders upbeat on bilateral ties. 13 Dec.

BBC Monitoring Central Asia Unit, 2009m. Uzbek report calls for independent scrutiny of Central Asian water projects. 8 Oct.

BBC Monitoring Central Asia Unit, 2009n. Uzbekistan cuts off gas supplies to Tajikistan over debt. 30 Sep.

BBC Monitoring Central Asia Unit, 2010a. Russian official in Uzbekistan says power plants should be built in agreement. 31 Mar.

BBC Monitoring Central Asia Unit, 2010b. Uzbek conference notes Tajik plant's negative impact on regional environment. 1 Dec.

BBC Monitoring Central Asia Unit, 2010c. Uzbekistan closes post on border with Tajikistan – agency. 1 Nov.

BBC Monitoring Central Asia Unit, 2010d. Uzbek paper reiterates need for expert examination of major Tajik power plant. 19 Feb.

BBC Monitoring Central Asia Unit, 2010e. Paper eyes recent closure of customs checkpoint on Uzbek-Kyrgyz border. 3 Apr.

BBC Monitoring Central Asia Unit, 2010f. Kyrgyz premier denies hydropower project row with Uzbekistan. AKIpress news agency website, Bishkek, in Russian, 24 Feb.

BBC Monitoring Central Asia Unit, 2010g. Tajikistan to meet Uzbekistan's demands regarding power plant - minister. 10 Jun.

BBC Monitoring Central Asia Unit, 2010h. Tajik leader, Asian bank official discuss energy projects, Afghanistan. Tajik Television First Channel, Dushanbe, in Tajik. 16 Mar.

BBC Monitoring Central Asia Unit, 2010i. Tajik minister, experts flay Uzbek president's statement on hydropower project. 19 Nov.

BBC Monitoring Central Asia Unit, 2011. Uzbek-Turkmen cooperation accords signed. 5 May.

BBC Summary of World Broadcasts, 1993a. Tajikistan; Interview with President Rahmonov. 1 Jun.

BBC Summary of World Broadcasts, 1993b. Tajik premier: under CIS treaty everyone should help us defend our borders. 20 Jul.

BBC Summary of World Broadcasts, 1994a. Russia grants R80bn in credit to Tajikistan. 14 Apr.

BBC Summary of World Broadcasts, 1994b. Tajik-Russian joint venture to complete Tajik power plant. 3 Jun.

BBC Summary of World Broadcasts, 1994c. Election manifesto of presidential candidate Imamali Rahmonov. 2 Nov.

BBC Summary of World Broadcasts, 1995a. Uzbekistan reinterprets power supply deal with Tajikistan. Source: 'Pravda', Moscow, in Russian, 2 Jun.

BBC Summary of World Broadcasts, 1995b. Tajik economic reform programme 1995-2000. Source: Narodnaya Gazeta, in Russian, 27 Sep..

BBC Summary of World Broadcasts, 1998. Kyrgyzstan unhappy with Kazakh water and electricity debts. Source: ITAR-TASS news agency (World Service), Moscow, in Russian, 2 Jan.

BBC Summary of World Broadcasts, 2004a. (Corr) Kyrgyzstan to develop cooperation with "fraternal" Kazakhstan - minister. (AKIpress news agency web site, Bishkek, in Russian) 13 May.

BBC Summary of World Broadcasts, 2004b. Central Asian leaders set up water-energy consortium. (Interfax-Kazakhstan news agency, Almaty, in Russian) 28 May.

BBC Summary of World Broadcasts, 2004c. Kyrgyz paper says recent breakthrough made in ties with Russia. Slovo Kyrgyzstana, Bishkek, in Russian, 24 Nov.

BBC Summary of World Broadcasts, 2004d. Czech, Tajik presidents sign co-operation agreement. CTK news agency, Prague, 4 Oct.

BBC Summary of World Broadcasts, 2007. Tajik PM, World Bank official discuss economic cooperation. Asia-Plus news agency website, 2 Nov.

BBC Summary of World Broadcasts, 2012. Uzbekistan reportedly dismantling railway to Tajik south. Avesta website, Dushanbe, in Russian, 30 Mar.

BBC News, 2010. Kyrgyz leader asks Russia to restore order in Osh. BBC News , 12 Jun. Available from: <http://www.bbc.co.uk/news/10300348> [Accessed 5 Sep 2013].

- Bloomberg, 2011. Zarubezhstroy Plans Power Plant in Tanzania, Guardian Reports. 20 Apr. Available from: <http://www.bloomberg.com/news/2011-04-20/zarubezhstroy-plans-power-plant-in-tanzania-guardian-reports.html> [Accessed 7 Jun 2012].
- Bloomberg, 2013. Tajikistan Negotiating to Resolve Water Feud, Ambassador Says. 22 Feb. Available from: <http://www.bloomberg.com/news/2013-02-22/tajikistan-negotiating-to-resolve-water-feud-ambassador-says.html> [Accessed 7 Mar. 2012].
- Central Asia & Caucasus Business Report, 2001. Kyrgyzstan to be fully supplied with gas from Uzbekistan. 29 Oct.
- Central Asia & Caucasus Business Weekly, 2007. Russia to complete Rogun hydro plant in Tajikistan – ambassador. 6 Feb.
- Central Asia & Caucasus Business Weekly, 2008. Kyrgyzstan China expand energy cooperation, 8 Aug.
- Central Asia General Newswire, 2007a. Alcoa, Kyrgyzstan consider building new aluminum plant. 16 Jul.
- Central Asia General Newswire, 2007b. Kyrgyzstan to raise \$1.5 bln in private investments from South Korea, 19 Nov.
- Chellaney, B., 2013. China's Hydro-Hegemony. The New York Times. Available from: http://www.nytimes.com/2013/02/08/opinion/global/chinas-hydro-hegemony.html?_r=0 [Accessed 10 Feb 2013].
- Crossette, B., 1995. Severe Water Crisis Ahead for Poorest Nations in Next 2 Decades. The New York Times, 10 Aug.
- Daly, J., 2011. Tajikistan - The Future is Hydroelectricity - or Perhaps Not. Oilprice.com, 30 Aug. Available from: <http://oilprice.com/Alternative-Energy/Hydroelectric/Tajikistan-The-Future-is-Hydroelectricity-or-Perhaps-Not.html> [Accessed 5 March 2012].
- Defense and Security (Russia), 2010. Summits, Maneuvers, Jubilees. Vremya Novostei, 29 Mar.
- Dubnov, A., 2009. My vozmem Samarkand i Bukharu, Vremya, 10 Dec.
- Dzyubenko, O., 2010. Kyrgyzstan launches new hydroelectric power plant: Reuters.
- Elektricheskiiye stantsii, 2006. Toktogul. Available from: <http://www.energo-es.kg/?page=articles&read=10> [Accessed 23 Jul 2012].

- Ergasheva, Z., 2011. Roghun's money gives first dividends. *Asia-Plus*, 24 Jan.
- Eurasia Daily Monitor, 2010. Will Tajikistan Successfully Construct Rogun? Volume, 7 Issue, 17.
- Eurasia Daily Monitor, 2013. Kazakhstani Foreign Minister Erlan Idrissov Conducts Shuttle Diplomacy in Central Asia. Volume 10, Issue 64.
- Eurasianet.org, 2000. Central Asian states wrangle over water. Available from: <http://www.eurasianet.org/departments/environment/articles/eav040500.shtml> [Accessed 6 Mar. 2012].
- Eurasianet.org, 2007a. Does Dushanbe Want to Distance Itself From Russia?. Eurasianet.org. Available from: <http://www.eurasianet.org/departments/insight/articles/eav090707aa.shtml> [Accessed 9 Oct 2012].
- Eurasianet.org, 2007b. Nazarbayev Flexes Diplomatic Muscle During Visit to Kyrgyzstan. Eurasianet.org. Available from: <http://www.eurasianet.org/departments/insight/articles/eav050107.shtml> [Accessed 7 Oct 2012].
- Eurasianet.org, 2008a. Tajikistan: Energy Shortages, Extreme Cold Create Crisis Situation , 12 Jan. Available from: <http://www.eurasianet.org/departments/insight/articles/pp011308.shtml> [Accessed 3 Jan 2012].
- Eurasianet.org, 2008b. Kyrgyzstan: Energy Crisis Threatens Country's Stability. Eurasianet.org, 17 Nov. Available from: <http://www.eurasianet.org/departments/insightb/articles/eav111808.shtml> [Accessed 4 Oct 2012].
- Eurasianet.org, 2009. Kazakhstan: Central Asian Leaders Clash over Water at Aral Sea Summit. Eurasianet.org, 28 Apr.
- Eurasianet.org, 2010a. Tajikistan: Forced Rogun Payments Sowing Discontent Among Impoverished Tajiks. Eurasianet.org , 4 Jan., Available from: <http://www.eurasianet.org/departments/business/articles/eav010510.shtml> [Accessed 15 Oct 2012].

Eurasianet.org, 2010b. Boxcar Diplomacy Puts Tajik Businesses At Tashkent's Mercy. Eurasianet.org, 6 Aug. Available from: <http://www.eurasianet.org/node/61678> [Accessed 17 Oct 2012].

Eurasianet.org, 2013. Kyrgyzstan: Bishkek's Hydropower Hopes Hinge on Putin's Commitment. Eurasianet.org, 25 Apr. Available from: <http://www.eurasianet.org/node/66883> [Accessed 3 May 2013].

Europe Information Service, 1992. General Electric to build Hydroelectric dam in Kirghizia, 21 Oct.

Ferghana News, 2008. Kyrgyzstan: Energy Crisis Challenges Bakiev's Presidency. Ferghana Information Agency, 10 Sep.

Ferghana News, 2010. Tajikistan: Akil Akilov responded to official letter of Uzbek Prime-Minister on the Rogun project. 8 Feb.

Fradchuk, A., 2010. Tajikistan's Energy Dilemma. Institute for War and Peace Reporting, 15 Feb.

FT Energy Newsletters, 1995. News: Russia to take half share in Tajik hydro project. 27 Jan.

Global Insight, 2007a. Kazakhstan Outmanoeuvres Russia Over Investment in Kyrgyzstan. 13 Jul.

Global Insight, 2007b. Russia Promises Restructuring of Kyrgyzstan's Debt. 26 Feb.

Hashimova, U., 2009. Fire over water in Central Asia. CACI Analyst. Available from: <http://old.cacianalyst.org/?q=node/5079> [Accessed 7 Mar 2012].

Hogan, B., 2000. AsiaNet Environment. Eurasianet.org. Available from: <http://www.eurasianet.org/departments/environment/articles/eav040500.shtml> [Accessed 6 Jun 2012].

Hydroworld, 2009. Russia to finance Kyrgyzstan's 1,900-MW Kambarata 1. Hydroworld.com, 2 Sep.

Idiev, M., 2009. Chinovniki voruyut, a den'gi na Rogun sobirayut s naroda. Centrasia.ru, 24 Dec. Available from: <http://www.centrasia.ru/newsA.php?st=1261647960> [Accessed 6 November 2012].

- Ikrami, D., 2011. Dzhonon Ikrami: YA khochu otvetit' uzbekskomu ekspertu. 6 Apr. Available from : <http://www.pressa.tj/news/dzhonon-ikrami-ya-hochu-otvetit-uzbekskomu-ekspertu> [Accessed 5 June 2012].
- Ikrami, D., 2012. From Nurek to Rogun (Tajik scientists object to Leonid Papirin). Available from: <http://www.tajikistanmission.ch/news/7-news/36-from-nurek-to-rogun.html> [Accessed 6 June 2012].
- Inter Press Service, 2006. Politics: “Water Wars” a Myth, Say Experts. Inter Press Service, 25 Aug. Available from: <http://www.ipsnews.net/2006/08/politics-water-wars-a-myth-say-experts/> [Accessed 4 May 2].
- Interfax News Agency, 2010. Rogun project undermines Uzbekistan's water supplies – Karimov, 12 Oct.
- ITAR-TASS, 2011. Tajikistan launches first stage of Sangtuda-2 hydropower plant. 5 Sep.
- IWPR, 2009. Tashkent Sees Astana as Possible Ally on Water. 18 Apr.
- Kabar Analitika, 2011. Ibragim Aliyev: «Uspeshnaya realizatsiya proyekta Kambaratinskaya GES-1 - energobezопасnost' Kyrgyzstana», 20 Feb.
- Kabar, 2011. Avtandil Kalmambetov: "Construction of Kambarata HPP will not lead to disruption of water regime in Central Asia", 19 Feb.
- Karabayev, A., 2010. Kyrgyzstan might stop attracting investor attention: Economists say much will depend on steps interim government takes. Central Asia Online. Available from: http://centralasiaonline.com/en_GB/articles/caii/features/main/2010/05/18/feature-02 [Accessed 3 May 2012].
- Khamidov, A., 2001. asiaNet Eurasia Insight. Eurasianet.org. Available from: <http://www.eurasianet.org/departments/environment/articles/eav102301.shtml> [Accessed 8 Apr 2012].
- Khamidov, A., 2008. Ferghana Valley: Harsh Winter's Legacy Stokes Ethnic Tension. Eurasianet.org. Available from: <http://www.eurasianet.org/departments/insight/articles/eav060208.shtml> [Accessed 6 Jul 2012].
- Mayak Radio, 2005. Radio interview with Kyrgyzstan's acting president and Prime Minister Kurmanbek Bakiyev: Official Kremlin Int'l News Broadcast.
- Moscow News, 1999. RF troops stay on in Tajikistan. 21 Apr.

- Mroue, B., 2013. Al-Furat Dam, Syria's Largest, Captured By Rebels. The Huffington Post . Available from: http://www.huffingtonpost.com/2013/02/11/al-furat-dam-captured-syria-rebels_n_2662171.html [Accessed 12 Feb 2013].
- Muzalevsky, R., 2010. The Rogun controversy: Decoding Central Asia's water puzzles. CACI Analyst . Available from: <http://old.cacianalyst.org/?q=node/5276> [Accessed 4 Jun 2012].
- Narodnoe Slovo, 2012. Ochagi neschastiy i bed. 16 Oct. Available from: http://www.narodnoeslovo.uz/index.php?option=com_content&view=article&id=2493:politika&catid=48:an-objective-view&Itemid=40 [Accessed 17 Oct 2012].
- Nye, J.S., 2007. Smart Power. Huffington Post, 29 Nov. Available from: http://www.huffingtonpost.com/joseph-nye/smart-power_b_74725.html [Accessed 5 May 2012].
- Papyrin, L., 2011. Water problems of Central Asia. Available from: <http://sarez-lake.ru/water-problems-of-central-asia> [Accessed 6 March 2012].
- Parshin, K., 2008a. Tajikistan: Government Harbors Hydro-Power Dreams. Eurasianet.org, 3 Jun.
- Parshin, K., 2008b. Tajikistan: President Renews Push to Create Central Asian Water Consortium. Eurasianet.org, 7 Jul.
- Parshin, K., 2012. Tajikistan: Dushanbe Building Boom Blocks Out Economic Concerns. Eurasianet.org, 1 May.
- Pravda Vostoka, 2011. Proyekt Roguna - tsunami dlya Sredney Azii. Pravda Vostoka , 29 Mar. Available from: <http://www.pv.uz/society/proekt-roguna> [Accessed 11 Apr 2011].
- Rasul-zade, T., 2010. V Tadzhikestane nachalas svobodnaya realizatsiya aktsiy Rogunskoy GES. Ferghana News, 6 Jan.
- Reuters, 2012. Uzbek leader sounds warning over Central Asia water disputes. Reuters , 7 Sep. Available from: <http://www.trust.org/alertnet/news/uzbek-leader-sounds-warning-over-central-asia-water-disputes/> [Accessed 8 Sep 2012].
- RFE/RL, 2001. Kyrgyzstan: Prime Minister Faces Power And Border Problems. RFE/RL , 19 Mar. Available from: <http://www.rferl.org/content/article/1095990.html> [Accessed 5 Jun 2012].

RFE/RL, 2004. Test of regional cooperation as Syr Darya overflows. RFE/RL , 6 Feb. Available from: <http://www.rferl.org/content/article/1342152.html> [Accessed 9 May 2012].

RFE/RL, 2004. Three Central Asian states cooperate against Syr Darya Flood. RFE/RL Newline , 4 Jan. Available from: <http://18.85.28.26/news/balkans/rferl/2004/04-01-06.rferl.html#25> [Accessed 6 May 2012].

RFE/RL, 2007. Tajikistan: Dushanbe Scraps Contract With Russia's RusAl. RFE/RL, 30 Aug. Available from: <http://www.rferl.org/content/article/1078431.html> [Accessed 8 May 2012].

RFE/RL, 2008. Central Asia: Kazakh, Tajik Presidents Show Oil And Water Do Mix. 14 May.

RFE/RL, 2009. EU, Tajikistan Move Toward Closer Cooperation. 11 Feb.

RFE/RL, 2011. Tajik Railways Wants Probe With Uzbeks Of Alleged Terrorist Blast. 21 Nov.

Ria Novosti, 2002a. Japan is likely to participate in construction of two power stations in Tajikistan. 16 Jan.

Ria Novosti, 2002b. Russians to complete construction of Rogun HPP in Tajikistan. 29 Oct.

RIA Novosti, 2006. Russia, Kyrgyzstan embark on multi-billion dollar energy project. 15 Dec.

Ria Novosti, 2010. Baby boy in Tajikistan named in honor of hydroelectric dam. 7 Jan.

Ria Novosti, 2012. Uzbekistan cuts gas supply to Tajikistan without notification – Tajik Foreign Ministry. 4 Jan.

Russell, B. and Morris, N., 2006. Armed Forces Are Put on Standby to Tackle Threat of Wars over Water. The Independent, 28 Feb.

Russia & CIS Military Newswire, 2011. Tajikistan asks EU to reconcile C. Asian countries. 8 Jun.

Russia & CIS Presidential Bulletin, 2009. Tajikistan offers its hydropower resources to central Asia. 7 Sep.

Sodiqov, A., 2009. Tajikistan suspends Rogun dam resettlement program. Central Asia-Caucasus Analyst. 22 Jun.

Sytenkova, D., 2013. Feasibility study on Kambarata-1 to be ready by mid fall: 24.kg news agency.

The European Times, 2011. Energy Ministry Focussing on Hydropower, Transmission Network. The European Times, 2011.

The Times of Central Asia, 2010. Kyrgyz president launches new hydro power plant: Kambarata-2 is another step to Kyrgyzstan's energy security. The Times of Central Asia, 2 Sep, pp. 1–2.

The Times of Central Asia, 2011. Problems at Kambarata-2 call into question project's value. The Times of Central Asia , 23 Feb. Available from: http://www.cawater-info.net/news/02-2011/23_e.htm [Accessed 3 Aug 2012].

The Times of Central Asia, 2012. Uzbekistan-Tajikistan: When is a Blockade a Blockade? The Times of Central Asia, 12 Apr.

The Times, 1860. There is probably no statesman of the first class, 5 May.

Thoenes, S., 1996. Kyrgyzstan Gets to Play Its Water Card. The Moscow Times, 12 Apr.

Trend News Agency, 2012. Tajikistan suspends works on Rogun HHP. 3 August 2012.

Turkmenistan.ru, 2009. President inaugurates Turkmen lake. Turkmenistan.ru , 17 Jul. Available from: http://www.turkmenistan.ru/?page_id=3&lang_id=en&elem_id=15259&type=event&sort=date_desc [Accessed 6 May 2011].

United Press International, 1996. Tajikistan cuts off power over winter. United Press International, 21 Nov.

Vietnam Online, n.d.. Hoa Binh Dam. Available from: <http://www.vietnamonline.com/attraction/hoa-binh-dam.html> [Accessed 3 February 2012].

Water Power & Dam Construction, 2003. Central Asian states to participate in hydro. 30 Apr.

Water Power & Dam Construction, 2009. Ukraine interested in completing Rogun scheme. 31 Jan.

Yerofeyeva N., 2002. Rogunskaya GES v Tadzhikestane budet dostroyena. No dlya etogo nuzhny inostrannyye investitsii. Rossiyskaya Gazeta, 25 Oct.