

Abstract

Water is an increasing source to conflict throughout Central Asia. The problems of water management are caused by lack of efficient cooperation between the Central Asian states, as the states fail to treat the question of water management in a holistic manner. Rather than relating to water management from a regional perspective, the states are putting their own national needs first. To effectuate water management in Central Asia, measures to enhance cooperation mechanisms may thus be helpful.

This thesis explores whether including actors from the local level may contribute to mitigate the water situation in Central Asia. In order to provide a basis for thorough analysis of whether local actors should be included in water management to a larger extent, the study applies a broad selection of interviews conducted with various actors engaged in water management in Central Asia. Perspectives within the center-periphery theory provide a theoretical framework for analyzing local involvement. In order to provide a basis for pragmatic discussion of how local actors can be included in water management, the concept of center-periphery is deconstructed into more tangible elements. It is my opinion that this theoretical approach allows me not only to better understand the mechanisms behind water management, but that it also provides me with a tool for pointing out some suggestions for how the water situation may be mitigated.

Based on the empirical findings and the theoretical discussion, the thesis argues that involving actors from the local level is likely to build trust between actors located at different levels of governance, thus facilitating cooperation.

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Abbreviations

ADB Asian Development Bank

CPS Center for Peace Studies

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit

ICG International Crisis Group

ICWC Interstate Commission for Water Coordination

IFAS International Fund for Saving the Aral Sea

INGO International Non-governmental Organization

IPCC Intergovernmental Panel on Climate Change

NGO Non-governmental Organization

OSCE Organization for Security and Co-operation in Europe

SHPD Small Hydro Power Development

TWM Transboundary Water Management

UN United Nations

UNDP United Nations Development Programme

UNEP United Nations Environment Programme

USAID United States Agency for International Development

WHH WeltHungerHilfe

WUA Water Users' Association

Innhold

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CHAPTER 1 Introduction

For the last decades, much has been written about water management in Central Asia. The consequences of an unsuccessful water allocation policy have been described by scholars and others dealing with issues concerning water allocation, both in general and more specifically on Central Asia.¹ However, there is a tendency to deal with the issue from a macro perspective, i.e. investigating which measures that may be taken at the regional or international level.² This thesis explores the issue primarily from a micro-level perspective and investigates how actors at this level more specifically are and may be included in the decision-making process concerning water issues. It is not my opinion that this approach to the topic has previously been neglected.³ Rather it is a question of how fully the topic has been discussed. Much of the literature that investigates local level participation in water management in Central Asia deals with specific projects or measures for allocating water.⁴ This thesis does indeed include a case study about a specific project concerning water allocation. The aim of this research project is however not to present a water project per se but to answer the wider question of how local actors to a larger degree may be included in matters concerning water allocation in Central Asia.

To do this I will apply a center-periphery approach to examine the relationship between actors at different levels, i.e. the local, provincial and international level. This theoretical approach will be used because it covers the conflict dimension concerning water management in Central Asia and also as it may shed new light on the relationship between the different actors involved in water issues in Central Asia. The research topic will be illuminated by a case study of a project initiated by the NGO *Deutsche Gesellschaft für Internationale Zusammenarbeit* (German Agency for International Cooperation, henceforth GIZ). The project addresses decision-making concerning water allocation in the bordering area between Kyrgyzstan and Tajikistan and focuses on including actors from a local level. This project shows how local actors can be included in water management and illustrates thereby the underlying scope of this thesis. By using the experiences from this project in addition to the

¹ See for instance Gleick (1993); Micklin (2000) or Rønningen (2006).

² See for instance Torjesen (2003) or Sehring (2009), in addition to Micklin (2000) and Rønningen (2006).

³ For scholars dealing with water management from a local perspective, see Wegerich (2008) or Kangur (2008).

⁴ See for instance Bure (2008) or Kangur (2008).

theoretical and empirical findings I have collected, I will point out some general measures for local level involvement in water management.

Earlier research on water management in Central Asia includes for instance studies on how the Soviet legacy has shaped today's water management structure (Rønningen 2006), how interstate relationships between the Central Asian states are affected by water issues (Shalpykova 2002) and if the use of focus groups on local level may give a better routine for water allocation (Kangur 2008). My research deals with involvement of local actors in water management in a broad perspective and thus deviates from earlier research. Earlier research has indeed been dealing with local involvement, but from a more narrow approach (such as Kangur's research on the use of focus groups in water management). The research I have done is also special in that it deals with a water conflict between two upstream states, i.e. Kyrgyzstan and Tajikistan, as far as the usual way to go about water conflicts in Central Asia is to explore tensions between upstream states and downstream states.⁵ Because the thesis is dealing with an issue that is representative for the whole region, namely local level actor involvement in water management, my findings will hopefully be useful not only for Kyrgyzstan and Tajikistan, but also for the other Central Asian countries. I hope my findings thus will shed new light on the topic of water management in Central Asia and that it may even inspire others to confront the issue from a new perspective.

1.1 Research question

The research question of this thesis is as follows:

“Can increased involvement of local level actors mitigate the problematic water situation in Central Asia?”

Based on this research question I formulated the following working hypotheses:

H1: Many water users feel that they do not get the amount of water they need. Inadequate access to resources is fueling local tensions and contributing to exacerbating already existing conflicts among local actors. Enhancing the water situation is therefore likely to have a mitigating effect on local relations.

⁵ See for instance Rønningen (2006) on the relationship between Kyrgyzstan, Tajikistan and Uzbekistan.

H2: Local actors are more familiar with the local water situation than actors at the national level. Increased involvement of local level actors is thus likely to give a more just allocation of water to local water users.

H3: Projects involving local level actors positively affect water allocation and offer a new way of dealing with water management in Central Asia.

1.2 Background and motivation

The background for this thesis has been my own interest in environmental issues in addition to my previous engagement in this geographical area. I hold a Bachelor's degree in Russian Studies and thus have competence on a wide variety of relevant subjects, such as language, history, literature and social sciences not only in the Russian context, but also on the post-Soviet area, including the region that today is loosely being referred to as Central Asia. Added to this I have done an internship for the Norwegian embassy in Kazakhstan. Working seven months for the embassy provided me with in-depth knowledge about the region that was crucial for starting this research project. The research was carried out during my Master's studies in Peace and Conflict Transformation at the University of Tromsø, Norway (autumn 2010 - spring 2012) and was directed by The Center of Peace Studies. The independent environmental NGO Naturvernforbundet (Friends of the Earth Norway) sponsored my field trip to Central Asia. However, the work I did for Naturvernforbundet resulted in a report that is not directly linked to this thesis, although the topics are related. The report deals with how hydropower development in Tajikistan affects the geopolitical situation in Central Asia.

1.3 Defining Central Asia

The term Central Asia is relatively contested, but it is common to include the five former Soviet republics Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan in the term (Starr 2008: 3). Some scholars also include northern parts of Afghanistan, western parts of China and southern parts of Russia, while others exclude Tajikistan and northern parts of Kazakhstan.⁶ In this thesis Central Asia is defined as the five former Soviet republics (see map). This is done not only because it is the least contested definition of Central Asia but also because the Soviet legacy is so critical when discussing water management in Central Asia.

⁶ Tajikistan is not a part of the Turkic ethno-linguistic heritage which is prevalent in the other post-Soviet countries, which is the reason why this country sometimes falls outside the definition "Central Asia". Likewise, northern Kazakhstan is by some considered to be too influenced by Russia to be reckoned as a part of Central Asia. The Turkic heritage is prevalent among some ethnic groups in Afghanistan, Russia and China, such as the Uyghur people in the Xinjiang region in western China.

MAP OF CENTRAL ASIA⁷



1.4 Why Kyrgyzstan and Tajikistan?

This thesis is addressing regional water management in Central Asia in general, and along the border between Kyrgyzstan and Tajikistan in particular. Cases of conflict concerning water allocation in Central Asia are numerous (see Chapter 4) and there are several reasons why I chose to focus on the areas along the border between Kyrgyzstan and Tajikistan. First, water disputes in this area represent a classic case of resource conflict where two or more conflicting parties are disagreeing about the distribution of water. This is the case in the Ferghana Valley, in the bordering area between Kyrgyzstan, Tajikistan and Uzbekistan. Here, border communities have experienced tensions for decades and in post-Soviet time these tensions have been exacerbated by uneven distribution of water and soil resources. Such tensions influence interethnic relations between the border communities as the disputes create anxiety and suspicion towards each other (UNDP 2011b: 13). In the past, tensions mainly concerned water allocation. Due to rapid population growth, however, more people have to

⁷ Source: United Nations, Department of Public Information (1998).

share the same resources and there are now therefore also land-induced tensions (see 4.1.1 for details). Second, the conflict also has an international dimension because the water sources are located in the bordering area between two countries, thus making it possible to compare the approach to the problem from two different perspectives.⁸ Third, an additional benefit by focusing on Kyrgyzstan and Tajikistan is the regional importance of these states with regard to water. Because all major transboundary rivers originate in the mountains of these countries, decisions concerning water use made in Kyrgyzstan and Tajikistan affect water allocation also in the downstream states.⁹

Coincidences nevertheless play an important part in research of this kind, and when I was invited to visit a NGO that was working in this area I saw it as a good opportunity for my research project.

1.5 The importance of water management in Central Asia

1.5.1 The water situation in Central Asia

Water is considered an essential resource for which there is no substitute. Uneven access to water is a constant source of conflict both between and within countries and the pressure on fresh water sources is expected to increase in the future as a direct consequence of population growth (Homer-Dixon 1994: 5). Estimates show that the world's population will most probably pass nine billion within the next 40 years (United Nations 2004: 1). As the population increases, there will be more pressure on already exposed resources. Scarcities of renewable resources are therefore expected to increase sharply. The population growth in Central Asia is higher than the world average, putting pressure on the resources in the region. In Tajikistan for instance the population growth is estimated to 1.846 % per year (online: Index Mundi – “Tajikistan Population Growth”)¹⁰.

1.5.1.1 Increasing pressure on resources

Further, the population growth is higher in the countryside than in urban areas, and particularly high in the agricultural areas of the Fergana Valley (Elhance 1997: 213). Demands for farming land and water are thus likely to continue to increase in the years to

⁸ This thesis does not offer a comparative study of Kyrgyzstan and Tajikistan, but rather uses the conflict between the two countries as an example of water distribution in Central Asia.

⁹ Water issues influences on multiple spheres of society, e.g. agriculture, security, energy and decisions concerning water allocation are affecting the political situation in the whole region. See Sehring (2009).

¹⁰ Index Mundi, «Tajikistan Population Growth».

come. Added to this, climate changes may force people to migrate to more fertile areas, thus increasing the pressure on limited existing resources (UNDP 2011b: 8). Central Asia has sufficient water to meet its needs but a poorly managed infrastructure and poor management are causing insufficient water supply to increasing parts of the region. The situation may roughly be described as follows: the closer one is to the source of a river, the more likely one is to get one's water needs met.

1.5.1.2 Too little, too late

The biggest problem however what concern water distribution in Central Asia is that negotiations about water quotas begin too late every year, resulting in Kyrgyzstan and Tajikistan getting coal and gas supply delivered too late from Uzbekistan and thus needs to produce electricity in winter-time. This upstream hydropower production is resulting in less water downstream for cotton-production during summer-time. The problems are further increased because the gas delivered by Uzbekistan often is of poor quality, and because of bad maintenance of the gas pipelines (ICG 2002: 13).

1.5.1.3 The Aral Sea

The situation concerning the Aral Sea illustrates how poor management of water and carelessly sustained infrastructure are the root to major problems. A decrease in water supply from the two main rivers running through Central Asia, the Amu Darya and the Syr Darya, due to intensive irrigation of arable land during the last decades has resulted in a serious decrease in the water flow to the lake (Micklin 2000: 13).

The Aral Sea, once the world's fourth largest lake, has shrunk to such a degree that it is now only the sixth largest lake in the world, a development that obviously has serious social and socioeconomic impact for the whole region. In Karakalpakstan Autonomous Republic west in Uzbekistan, many people have been struggling with health related issues, e.g. tuberculosis and other respiratory diseases, water borne infectious diseases such as typhoid and hepatitis A and some types of cancer, caused by an increase of salinity due to the shrinking water levels of the lake (Whist-Wilson 2002: 30). The salt also ruins the soil and makes it difficult for the local population to engage in agriculture. The desiccation of the Aral Sea has furthermore negative effect on the climate in large parts of Central Asia (Small *et al.* 2001: 297).

1.5.1.4 Shrinking glaciers

In addition to mismanagement of the existing water sources, shrinking glaciers due to climate change and occasional draught will result in less water to the region in the future. Forecasts

supplied by the Intergovernmental Panel on Climate Change (IPCC) of glacier retreat in Central Asia suggest that increases in the annual temperature for Asian mountain regions in the range of 1.0 ° to 6.0 ° (low to high estimate) by 2100 may lead to a decline in the current coverage of glaciers by 43 to 81 per cent (Naturvernforbundet 2010: 20). Because some of the rivers in the region, notably the Amu Darya, receive almost 90 per cent of their total water flow from the glaciers and from snow in the mountains, it is evident that the shrinking glaciers will take a heavy toll on the water resources in Central Asia (UNDP 2007: 10).

1.5.1.5 Upstream states versus downstream states

Agriculture has for decades been one of the core industries in Central Asia and the pressure on water resources increases due to the emphasis on water-consuming crops such as cotton and rice (Torjesen 2003: 360). With the expansion of agriculture, water from the two main rivers in Central Asia have caused growing competition between the five Central Asian states (ICG 2002: 1): the Syr Darya, which originates in the Tian Shan mountain range in Kyrgyzstan and flows through Tajikistan, Uzbekistan and Kazakhstan to the Aral Sea, has been a particular cause of tensions, as has the Amu Darya, which flows from the Pamirs in Tajikistan through Turkmenistan and Uzbekistan to the Aral Sea. From a macro perspective, the setting can be described as a conflict between the upstream states Kyrgyzstan and Tajikistan, and the downstream states Kazakhstan, Turkmenistan and Uzbekistan. Water is considered to be one of few valuable assets of the upstream states, while the downstream countries are rich in resources such as gas, oil and coal (Rønningen 2006: 16).

1.5.2 Historical context

During the Soviet period, the five Central Asian states were tied together in a system of barter trade: the upstream states provided water to the downstream states in return for gas and coal during winter time (Rønningen 2006: 15). Today, the Soviet legacy is still strong but diverging national interests are now considered to be the main cause of energy-related conflicts in Central Asia (Torjesen 2003: 215).

Once they had gained independence the Central Asian states started pursuing national goals rather than focusing on what would benefit the region as such. Diverting national interests led to difficulties in terms of water allocation. After the Soviet Union collapsed the Soviet system for water allocation in Central Asia continued to function much in the same way as before, though the ultimate decision-making power came to rest with the Central Asian states and not with decision-makers in Moscow. There has also been a remarkable degree of continuity from

Soviet times with regard to institutional structures and personnel in charge of water management.

The fact that the Soviet legacy in water management has continued to prevail in regional water management institutions since independence has led to a highly inefficient system for resource sharing (Rønningen 2006: 94). This is because the system for resource sharing initially was intended to serve states joined together in a union. This structure has proved rather unsuccessful once the states became independent and started pursuing national goals. For a start, the five Central Asian states had neither a developed state structure nor the competence and experience needed to run a state. The sudden independence in the early 1990s proved somewhat of a shock: none of the states were sovereign when they were incorporated into the Soviet Union in the early 1920s and they thus had no experiences with being independent. Nevertheless, the Central Asian states sought to establish independent institutions and solutions in terms of state governing. The urge to build national structures and emphasize national features is evident for countries that have recently gained independence, but this is not necessarily the best solution for states where the state apparatus is weak.

1.5.3 The conflict dimension

Water resources are of great importance in terms of political relations because disputes over water often lead to conflict between states (online: Shalpykova 2002: 2.3.2, first paragraph). The competition over water resources has therefore for many years been an important topic for scholars in peace and conflict studies. Water is considered to be the renewable resource most likely to cause interstate resource war (Gleick 1993: 79). As already noted, this is because water is an essential resource for which there is no substitute, making it crucial for social and personal survival. River water is also a potential trigger for dispute as it flows from one country to another. One country's actions may thus affect another country's access to water.

Conflict is most probable when a downstream riparian state is highly dependent on river water and is stronger than its upstream riparian state (Homer-Dixon 1994: 19). The downstream riparian state often fears that their upstream neighbors will use water as a means of coercion in disputed question concerning bilateral issues. This is the situation we see in Central Asia, where the upstream states' wish to control the water flow for hydroelectric purposes clashes with the downstream states' need of water for irrigation. The downstream states are most dependent on water in early spring and during the summer, whilst the upstream countries need

to save the water for the winter in order to create energy when energy demands are at the highest. This makes the conflict season dependent and water resources tend to be a more heated subject during spring and summer than during the rest of the year.

Still, conflict related to river water is more often domestic than international (Homer-Dixon 1994: 20). This is evident in Central Asia, where several water disputes at the local level within single states have resulted in inter-ethnic violence. As will be discussed in Chapter 4, small scale conflicts usually take place in border areas where people with different ethnicities live together in the same village. When access to water occurs along ethnic lines this can cause tensions among different population groups. The potential for these conflicts to escalate into widespread ethnic violence is by many considered high. There have for instance been several clashes – both cross-border and inter-ethnic – between the Kyrgyz and Tajik communities in the bordering areas between the two countries (UNDP 2011b: 67). Such clashes are due not only to inadequate access to water, but also to increasing shortage of grazing fields and farming lands as well as disputes over the ownership of land (UNDP 2011b: 7). An important factor to keep in mind when discussing water and conflict is therefore how water shortage in certain regions interacts with other conflict-triggering factors and that water thus plays a significant role in conflict (Gleick 1993: 80).

1.5.4 Why Central Asia is a focus of concern

Conflicts concerning water are, as mentioned above, expected to increase in the years to come and at the backdrop of already existing scarcities. There is a direct linkage between scarcities and violent conflict as environmental scarcity has an accumulative social impact, such as population movement, economic decline and the weakening of states (Homer-Dixon 1994: 36). These factors may contribute to persistent sub-national violence, and the extent of such conflicts is expected to rise as scarcities worsen. In this context, Central Asia is a focus of concern for many reasons:

- The pressure on water resources in Central Asia is already considerable and grows stronger as the population pressure increases. Such pressure is further enhanced by the warmer climate.
- The Central Asian states are adopting zero-sum positions on natural resources, creating a platform where cooperation is hard to achieve.
- The downstream states are more powerful than the upstream states in terms of economy, an imbalance that is present in many water conflicts. This is not only the

case in Central Asia where the relatively wealthy downstream states faces the underprivileged upstream states, but also for instance between highly developed South Africa and impoverished Lesotho, or between downstream Egypt and the less prosperous states further up the Nile Basin.

- The five states used to be tied together by Soviet management of water resources, but must now manage these resources themselves.
- The economies of the Central Asian states are heavily dependent on irrigation.
- Poor water management causes catastrophic environmental damages in the region.
- The role of Afghanistan is further complicating the situation. As northern Afghanistan is developing economically, the country will be in increasing need of water.

Water conflicts are often more intense the smaller the scale of the conflict, as can be seen in Central Asia where local conflicts have been more serious than bigger ones (ICG 2002: 5). Competitions regarding scarce water resources are only one element of a complex web of tensions including drug trade, Islamist extremism, ethnic rivalries and border disputes. The problems between and within the Central Asian states represent an obstacle to economic development and are occasionally resulting in violence.¹¹

1.6 Theoretical framework

The interaction between actors located at different levels of governance is critical for understanding the dynamics of water management in Central Asia. Center-periphery perspectives may thus provide a theoretical framework for discussing local involvement in water management. The perspectives within center-periphery do not only define the different actors concerned with water management but also captures the dynamics between these actors at different levels. In order to provide a solid platform for discussing the significance of center-periphery relations in water management, I seek to deconstruct the concept into more concrete and manageable elements, notably decentralization, inclusive management and the top-down versus bottom-up approach. Breaking up the center-periphery concept opens for a pragmatic discussion of how problems related to water may be solved.

¹¹ Examples of conflicts are among others the uprisings in Osh, Kyrgyzstan, in 2010 (online: BBC - "Kyrgyzstan violence: Osh unrest remembered one year on."), the armed conflict in Kamarob Gorge, Tajikistan, in 2010 (see Heathershaw and Roche 2011) and clashes among the Kyrgyz and Tajik population in Batken (Kyrgyzstan) and Isfara (Tajikistan). The latter will be discussed more thoroughly in Chapter 4.

1.7 Methodology

I have chosen to apply a combination of qualitative research methods, i.e. semi-structured interviews in addition to direct and indirect observation, in order to create a methodological framework for this thesis. When doing a five-week long field work in Kyrgyzstan and Tajikistan in July and August 2011, I conducted 18 interviews with different actors involved in water management, and also did two cases of direct observation. On the first occasion I participated at a conference held in Khujand, Tajikistan, for the signing of an interstate agreement of water allocation between Kyrgyzstan and Tajikistan (see Chapter 4 for details). On the second occasion I attended a group meeting in Shurab, Tajikistan. The data I gathered by applying these methods gave me a solid basis for discussing local level involvement in water management in Central Asia.

1.8 Outline

Following the introduction, **Chapter 2** accounts for methodological choices made throughout the research process. The chapter offers an explanation as to why I chose a qualitative approach for studying local involvement in water management, before accounting for the research methods applied during the procedure. This chapter presents also the framework for the field work. **Chapter 3** introduces the theoretical framework of the thesis. Here, I account for how center-periphery perspectives provide a beneficial approach for analyzing water management in Central Asia and for how deconstructing the term center-periphery perspectives into three more concrete and manageable elements, i.e. decentralization, inclusive management and the top-down versus bottom-up approach opens for a pragmatic discussion of possible solutions. **Chapter 4** offers a case study of a project that seeks to include local actors in water management. Not only will the case study provide a useful occasion to present the center-periphery relations in water management in Central Asia. It will also exemplify how involvement of local actors in water management can happen in practice. In **Chapter 5** I start by discussing how the Central Asian states' lack of mutual trust and the inadequate framework for dealing with water resources are decisive with regard to how they relate to water resources. I continue by discussing which measures that are needed in order to secure local involvement in water management in an efficient manner, before I draw lines to the TWM project and discuss the manner in which this project involves local actors with a view to mitigating the water situation. **Chapter 6** will summarize the findings and give an outlook to further research issues.

CHAPTER 2 Methodology

The basic research question of this thesis is as noted in point 1.1 whether increased involvement of local level actors can mitigate the problematic water situation in Central Asia. This question will be addressed in three different ways. Not only will I apply elements from center-periphery theory in order to build a theoretical framework for answering the question and for putting the thesis in a broader academic context. I will also show how local level actor involvement may take place in practice, by applying a case study where I show how local actors are involved in the decision-making process concerning water allocation. In doing so, I will show how center-periphery relations are expressed in water management. Finally, I will apply empirical findings from interviews and observations I performed when doing field research in Central Asia in the discussion of local level involvement in water management. This tripartite approach constitutes a solid base from which I can address the thesis' research question.

This chapter starts with a presentation of the research methods I have used in the research process. In this section I explain why I have chosen to do interviews and observation to learn more about the water situation in Central Asia, before accounting for the reliability and validity of my findings. That account is followed by a section where I describe how the field research was conducted, why I chose the respondents that I did, and why I have decided to include a case study to address the research question. Further, I explain how I used a grounded theory approach to shape the theoretical framework for the thesis. Then follows a short section on language-related issues, and an explanation of how unexpected incidents affected the research process, before the chapter ends with some conclusive remarks.

2.1 Research methods

The essence of my research is the interaction between decision-makers at different levels of governance. I argue that the qualitative approach is the best way of dealing with this kind of interaction because qualitative research deals with human behavior. However, a quantitative approach may also be useful in this respect as human behavior can be thoroughly illuminated for instance by the use of social surveys (Bryman 2008: 46; Miller & Brewer 2003: 302). The advantage of the qualitative approach is that it provides a deeper understanding of the complexity of social phenomena and is convenient for studying people's perception of a situation in-depth (Silverman 2005: 7). One of the most applied methods in qualitative

research is different types of interviews, e.g. structured, semi-structured or unstructured interviewing, and focus groups (Bryman 2008: 312).

2.1.1 Interviews

By choosing to conduct semi-structured interviews, I would be able to gather data in an efficient and feasible manner as this method would give me the best chance of getting in touch with both local and central actors in water management. Performing semi-structured interviews would allow me to get a deep understanding of their perceptions of the situation concerning water-allocation, and it would also give me the opportunity to dig deeper into the material by asking follow-up questions and to ask for explanations when things were unclear (Rubin & Rubin 2005: 3). This method also appealed to me because it would allow the respondents to raise issues and to construct their own picture of reality, at the same time as it would give me the opportunity to ask follow-up questions when necessary.

An objection against using interviews as a research method is that the interviews may give biased answers and not show the whole picture (Silverman 2005: 211). However, semi-structured interviews do provide the researcher with the possibility of getting the respondents to comment on information that has been obtained in different interviews, without necessarily telling him/her from where this information has been obtained. This is a useful way of cross-checking and verifying information given by respondents.

2.1.1.1 About the interviews

During my stay in Central Asia I conducted 18 interviews. Many of the interviews touched directly upon water related issues and the need for improving the water situation in Central Asia. Other interviews dealt with Central Asia in a more general way. While the interviews I did with representatives from international NGOs (below referred to as INGOs) mostly dealt with water issues and geopolitics in a broad sense, the interviews done with local non-governmental organizations (below referred to as NGOs) touched upon a more narrow approach to water issues. The interviews with GIZ both touched upon regional and local matters, in addition to thoroughly dealing with the project I decided to use for my case study (see Chapter 4). I conducted three interviews with different representatives from GIZ. One of these interviews was a group interview with four employees from the organization. The interviews were conducted in Russian or English and ranged from 30 to 90 minutes in length (see appendix 1). I conducted 14 interviews in Tajikistan, three interviews in Kyrgyzstan and one interview in Kazakhstan.

2.1.1.2 Overweight of interviews in Tajikistan

Due to an accident that happened halfway through my field work period, I did not have the chance to conduct as many interviews in Kyrgyzstan as I had planned (see 2.5.1). In a research situation it can be problematic to have an overweight of respondents representing one particular unit, in my case a state (i.e. Tajikistan). However, not having many Kyrgyz respondents does not mean that I failed to understand Kyrgyzstan's role in water management. In order to make up for the material I missed by not conducting the interviews I had planned, I have included extra readings on Kyrgyzstan. I have also been paying extra attention when going through the literature that deals with Kyrgyzstan, thus increasing my knowledge about the country. Furthermore, I have been in touch with several of the respondents in retrospect via email to get these to elaborate on issues concerning water management in Kyrgyzstan.

2.1.2 Observation

In order to complement the semi-structured interviews and to get a broader picture of the water situation I chose to do both general observation, i.e. being in the field, and direct observation. The latter involved observing negotiations between local, provincial and international actors on two occasions. On the first occasion I participated at a conference held in Khujand, Tajikistan, for the signing of an interstate agreement of water allocation between Kyrgyzstan and Tajikistan (see 4.3.5). In addition to observing the negotiations, I conducted interviews with several of the participants. On the second occasion I attended a group meeting in Shurab, Tajikistan, held by representatives from the local water administration, and the local NGO “*Za mezhdunarodnoe soglasie i razvitie*” (“For International Consensus and Development”)¹². Representatives from the Organization for Security and Co-operation in Europe (OSCE) and from the United Nations Development Program (UNDP) also participated at the meeting, together with representatives from the local population in Shurab.

2.1.2.1 Direct observation

Direct observation allows the researcher to be present at the actual place where the respondents are, and to study how they act in this context (Bryman 2008: 257). Before starting the field work, I planned to observe sites where water projects were initiated and to visit places that were relevant for my topic. I went on one field trip to the remote village of Shurab where I attended a group meeting (mentioned above) and to the small town of Isfara where the UNDP in collaboration with the Norwegian government were implementing a project on

¹² My translation.

water sharing between Tajikistan and Kyrgyzstan. The field trip included meeting people – both local decision-makers and farmers - that would benefit from enhanced water management. I found it very useful to observe the project area. Not only did I get to meet several actors involved in water management, I was also given the opportunity to see with my own eyes how water negotiations are conducted in practice.

By observing a conference that hosted actors from ministerial level and down to the local level, in addition to foreign NGO-personnel, I obtained a thorough understanding of the position of Kyrgyz water officials at different levels of governance (see 4.3.4 for details). The conference was held in Khujand, Tajikistan, on 7-8 August 2011 and was attended by actors from both Kyrgyzstan and Tajikistan.

The project I chose for my case study consisted of both Kyrgyz and Tajik actors. As noted in Chapter 1, GIZ was decisive in contributing to my research project. Among those members from this organization that assisted me are representatives from both the Kyrgyz and Tajik offices. Thanks to them I was able to get a proper understanding of the views of both Kyrgyz officials and people representing Kyrgyzstan in an international organization, even though the conference was held only in Tajikistan.

2.1.2.2 Indirect observation

Also just being in the field provided me with a valuable understanding of the water situation along the Tajik-Kyrgyz border. Even though I felt well prepared before starting field research, my understanding was greatly enhanced after I arrived in Central Asia and started to systematically talk with people engaged in water management. I experienced that being in the field provides a whole different understanding than what is possible to achieve when dealing with an issue from far away. Talking with people affected by the consequences of water management, visiting places I earlier had just read about and experiencing the local atmosphere provided me with an understanding of the problem that I never would have gained if I did not go on field work.

2.1.3 Data reliability/validity

Because the methods used in qualitative research make generalization and verifiability harder to achieve than what is the case for most quantitative research methods, some claim that the results provided by qualitative research gives untrustworthy results (Bryman 2008: 405). A useful manner in which to secure greater confidence in qualitative research data is the use of triangulation (Bryman 2008: 392). Combining different research methods helps secure a

higher level of reliability and validity in qualitative as well as quantitative research (Golafshani 2003: 597). It is my view that using one method only is not necessarily inadequate, but that combining two or more methods that complement each other will give more reliable results. By combining interviews with observation I achieved higher confidence in my findings than what would have been the case if I had applied one method only.

2.1.3.1 Securing reliability in the interview situation

When conducting in-depth interviews it may be hard to tell whether the respondents are trustworthy and if the answers they provide are reliable (Silverman 2005: 221). One of the challenges I faced when selecting respondents was whether or not the respondent had hidden agendas or would give biased answers, as this could pose a threat to the data's trustworthiness. I experienced that water officials, i.e. people working in state bureaucracy with water issues, were very reluctant to talk about certain issues, such as corruption. The same respondents also had a tendency to glorify the bilateral relationship between Kyrgyzstan and Tajikistan, and to give more importance to existing cooperation than they had reason to. Respondents from INGOs and NGOs, on the other hand, were more down to earth in their description of cooperation agreements between the countries and they did to a large degree emphasize corruption as an obstacle for establishing solid agreements for water management. As a researcher I needed to take these factors into consideration when conducting the interviews. In order to verify the data from the interviews and to secure a higher level of trustworthiness, I have linked my data to relevant literature, in addition to cross-checking claims made by different respondents against data provided by the other respondents.

2.2 Organization of fieldwork

Field work was conducted over a five-week period (25 July – 28 August 2011) and took place in Kyrgyzstan and Tajikistan. As mentioned above, the countries were chosen for their significance for water-supply in Central Asia (see 1.4). In Tajikistan, six interviews were conducted in the capital Dushanbe and six in the town of Khujand, in addition to one interview in the village Shurab and one in the town of Isfara. In Kyrgyzstan, I conducted three interviews in the capital Bishkek and in Kazakhstan I conducted one interview in the city Almaty with a representative for the International Fund for Saving the Aral Sea (IFAS). This organization holds significant resources on the overall water situation in Central Asia, which is the reason to why I chose to conduct an interview in Kazakhstan.

2.2.1 The aim of the field work

The aim of the field work was to gather data that could answer my basic research question. Having lived, worked and traveled in large parts of Central Asia earlier I felt that I was familiar with the region before going on field work. This was beneficial because it meant that I could easier prevent some problems from arising. It is for instance hard to plan meetings and interviews a long time in advance. If I had not known the Central Asian way of working I would probably be fatigued by the trouble of establishing contacts and planning interviews and meetings. Instead of trying too hard to plan everything in advance, I decided to go with the flow and conduct my work in a manner more suitable for the region. By this I mean being as prepared as possible, while being ready to plan and conduct interviews and meetings along the way, always expecting one thing to lead to the next.

2.2.2 Sampling strategy

It proved hard to plan interviews and meetings before going to Central Asia, but I nevertheless managed to make a couple of appointments before starting the field work. However, most of my respondents were selected by the snowball method, i.e. they were recommended by some of my other respondents. Some claim that this method results in small variety among the respondents in that they all represent the same network (Bryman 2008: 185). But my experience is that this method gave me access to respondents from a variety of backgrounds, reaching from INGO and NGO-staff, national officials and local decision-makers, thus ensuring that my questions were addressed from many different perspectives.

2.2.3 The respondents

The respondents I chose to interview can be divided into three groups. The first consists of water experts and officials, and includes people working within the water ministries in Kyrgyzstan and Tajikistan. This group is important because the information provided by the respondents enhanced my understanding of water management structures and of the general water situation in Central Asia.

The second group consists of international and local staff from different international/bilateral organizations, such as GIZ, the OSCE and the UNDP.

The third group includes interviews conducted with NGOs. The insight provided by the two latter groups not only enhanced my knowledge about water management, but also gave me a deeper understanding of the relationship between the different actors involved in water

management in addition to a more thorough understanding of the geopolitical situation in Central Asia. This was especially important in terms of placing the water management situation within the center-periphery context.

The interviews with GIZ also enhanced my knowledge about the project on local involvement in water management initiated by this organization (see Chapter 4). The information and statistical data provided by the respondents made a solid platform for investigating my research question, i.e. whether increased involvement of local level actors can mitigate the problematic water situation in Central Asia. For getting a thorough overview of the respondents, see appendix 1.

2.2.4 Case study

The case study allows the researcher to illuminate a certain issue by presenting a special case as representative for the issue in general (Yin, 2003; Silverman, 2005). In order to show in practice how involving local level actors can be achieved in water management, I wanted to study a water project that included the local population in decisions regarding the use of water. I therefore decided to do a case study of a project initiated by GIZ in my thesis. The project focuses on joint management of water and includes decision-makers at different levels of governance in both Kyrgyzstan and Tajikistan.

Someone critical of using the case study approach may claim that it is useless in describing something beyond the project in question (Bryman 2008: 406). A case study may not open for making firm generalizations, but it is useful to account for a tendency that can be relevant also for other cases. By giving a structured examination of a small project that involves local actors in water allocation, I am not only providing an example of how this works in practice. I am also identifying some tendencies concerning local level actor involvement in water management in Central Asia as such.

2.3 Grounded theory

2.3.1 The grounded theory approach

In grounded theory, the data form the foundation of the theory (Adolph *et al.* 2011: 491). Where other methods often require the data to be collected in accordance with an already existing theoretical framework, grounded theorists start with the data (Charmaz 2006: 3). The theoretical framework is in other words developing as the data is being gathered and analyzed. The advantages of this approach are that it allows the researcher to gather rich data from

individuals without being restrained by a framework that does not necessarily match the situation on the ground. Grounded theory proved to be particularly suitable in a part of the world where it is hard for the researcher to follow a strict, premade plan of action: I experienced that this approach had a positive reciprocating effect where the theory developed as my data was gathered, and the data affected the theoretical development during the research process. By choosing a grounded theory approach I had the possibility to add new pieces to the puzzle both while I was gathering data and also later during the analysis. This gave me flexibility to follow up on emerging leads.

2.3.2 Criticism of grounded theory

Critics of grounded theory claim that keeping a strict focus when gathering data is harder when the theoretical framework is undefined. Also answering for validity in the research process is an issue connected to the use of grounded theory (Layder 1998: 10). The researcher can meet these challenges by carefully cross-checking his or her findings against several possible theoretical approaches throughout the process, in order to make sure that the data that is being gathered, matches the developing theoretical framework. It may also be useful to have somebody else check the findings, thus making sure that the researcher keeps on the right track.

2.3.3 Using grounded theory to shape an theoretical approach

When I started doing field research, I had not yet decided which theoretical approach to apply for my thesis. However, I did have several roughly formulated hypotheses about the relationship between actors involved in water management in Central Asia – one of them being that inadequate communication between decision makers at the local, provincial and international levels has a negative effect on water management. Another hypothesis was that the use of local actors in water management is beneficial for solving water-related issues. I also operated with a third hypothesis stating that the regional frameworks for water allocation do not work in a satisfying manner. These hypotheses were all modified during the research process as I was learning more about the subject but the core ideas has been the same all along, namely that the system for water allocation in Central Asia is not working properly because local water users not are included in water management in a satisfying manner (see 1.1 for how the hypotheses were eventually formulated).

During the interview process it became evident to me how important it is to involve local actors in the decision-making process concerning water. I thus chose to focus on the relationship between the center, i.e. actors located at regional level, and peripheries, i.e. those actors located at local level, when shaping the theoretical framework for my thesis (see Chapter 3).

2.4 Language

2.4.1 The language situation in Central Asia

The language situation in Central Asia is complex (Anderson 1997: 307). The main languages spoken in Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan all belong to the Turkic language groups, and are so related to for example Turkish, Azerbaijani and Uyghur. The official language in Tajikistan is different from those of the Turkic heritage. It belongs to a different group of languages, and is related to Farsi. However, Russian is still the lingua franca throughout Central Asia and many people know the language at a certain level though there are differences between densely populated and rural areas: while most people living in the cities speak Russian, this goes for fewer in the country side. There are also age-differences. Most of those who grew up in the Soviet era speak Russian, but because Russian not has been mandatory in education after 1991, fewer and fewer growing up today speaks the language (online: Library of Congress - “Country Profile: Kyrgyzstan”).

2.4.2 Using Russian

The respondents I used in my research all spoke either good Russian or good English, or both. I have studied Russian at university level for several years, and have lived for roughly a year in Russian-speaking countries. I know the language fairly well, can understand everything that is being said and make myself understood without problems. I thus chose to perform the interviews with water officials, local decision-makers and local staff in Russian. The interviews I did with the foreign staff working in international organizations were done in English. There were never any needs for using an interpreter, and all quotes used in the thesis from these interviews are transcribed and translated by me.¹³

¹³ See the appendix for a transcription form.

2.5 Unexpected incidents

In qualitative research the researcher should be open for changes and unexpected incidents during the research process (Bryman 2008: 15). Being adaptable is one of the features of a good researcher, and moving away from the original plan does not necessarily need to have a negative impact on the research process.

2.5.1 Accident

Due to a personal injury I had to change my planned fieldwork approach. My original plan was to travel to several cities and villages in both Kyrgyzstan and Tajikistan in order to interview local and state actors involved in water management. It was also my initial plan to observe fields where water projects were initiated and to visit other places that could be relevant for my topic. This meant that I would have to travel around a lot, and not under the best conditions. Travelling in Central Asia often implies long journeys in cramped taxis on winding mountain roads, and this would have imposed much stress and pain considering the condition I was in due to the injury.

2.5.2 Modifying the field work plan

As my financial resources were limited I relied on travelling by bus and shared taxis, which are the most usual and economically beneficial means of transport in this part of the world. However, a couple of weeks after starting the field research, I was involved in an accident where my back was badly injured. At first I was prepared to end the field research and go home, but after some days I realized that I could continue the field research if I modified my plan. My back was aching a lot, and I had big problems walking. Travelling long distances by car and bus was for that reason no longer an option. I therefore decided that I should travel by air, because this involved less moving around. This was a hard decision to make, because it excluded most of the places I initially planned to visit, with the exception of the major cities where the air connections were good. Conducting interviews with local decision-makers and people living in rural areas thus became impossible, and I had to rely on interviewing actors located in the capitals of Kyrgyzstan and Tajikistan, i.e. state officials, water experts and NGO-staff. The observation part of the field work also had to be downscaled. Fortunately I had made several interviews with local decision-makers and visited several sites of interest prior to the accident. I was thus able to cover the original topics of my thesis, even though the outline had to be somewhat changed.

2.5.3 Recording interviews

Recording interviews on tape is a good way of storing information and provides the researcher with the possibility of checking up on what has been said during interviews (Rubin & Rubin 2005: 110). Using a tape recorder may also help the researcher to detach from writing notes and thus focus more on the respondent. It was my initial plan to use a tape recorder for recording all the interviews I conducted, and the first interviews are on tape. However, two problems occurred when using the tape recorder. The first problem was caused by the intensive settings. The interviews often took place in open spaces with much background noise. The first interview I did was done in an office where people kept walking in and out, and where a telephone rang almost constantly. Other interviews were disrupted by loud music, noise from traffic and other people. This background noise lowered the quality of the recordings, making it at times impossible to listen to the recorded conversation. The other problem that occurred was that some of the respondents were very reluctant to be recorded. This only applied to local respondents, i.e. people from Kazakhstan, Kyrgyzstan and Tajikistan, but it nevertheless prevented me from recording many of the interviews.

2.5.4 Measures to remember the data

Using a tape recorder proved difficult and I therefore quickly developed a method for thoroughly writing down everything that was said in each interview: I wrote down most of what was being said during the actual conversation. In some cases the respondents needed to slow down or to repeat what was being said, but I did not experience any further problems with this approach. In order to get a good as possible connection with the respondent, I chose to write by hand instead of using a computer. Right after the interview was over I would therefore sit down and re-write the interview on my computer. This was a good way of going through the material and to check if everything that had been said during the interview was clear to me. Concerning those interviews I did record on tape but that were hard to understand when playing the recording, I did in all cases manage to write down the interview both from the recordings and from memory right after the interviews were over. I made sure to get contact information for all my respondents, in case I wanted to clarify an issue or follow a lead. On several occasions I contacted respondents after the interview was over.

2.6 Conclusion

In this chapter I have accounted for methodological choices made during the research process. I have argued that because qualitative research deals with human behavior, this has been the

best approach for dealing with the issue of local level actor involvement in water management. I have further explained how I chose to use semi-structured interviews in combination with direct and indirect observation to gather data. These methods provided me with a thorough understanding of the water situation in Central Asia. Besides, by combining several research methods I hold that I have achieved a higher level of trustworthiness in my findings than what would have been the case if only one method had been applied. I have also accounted for how the field research was conducted and given an explanation as to why I have chosen to include a case study. I have explained how the use of grounded theory gave me the opportunity to develop a theoretical framework while gathering data, thus allowing me to streamline my field work. I have further accounted for how issues connected with language and unexpected incidents affected the research process. The methodological choices and empirical premises have thus been clarified, and the theoretical framework of the thesis will now be explained.

CHAPTER 3 Theoretical framework: Center-periphery

Critical for understanding the dynamics of water management in Central Asia is the interaction between actors located at different levels of governance. Center-periphery perspectives may thus serve as an explanatory framework when discussing water management in Central Asia. As noted in Chapter 1, the aim of this thesis is to investigate whether increased involvement of local level actors can mitigate the problematic water situation in Central Asia. In my hypotheses I claim that local actors are more familiar with the local water situation than actors at the national level and that increased involvement of local level actors thus is likely to give a more just allocation of water to local water users (H2). Further, I argue that inadequate access to resources is fueling tensions and that enhancing the water situation – exemplified through a project involving local level involvement – may have a mitigating effect (H1 and H3). These hypotheses will lay a theoretical foundation for the analysis and discussion of this assumption in the following chapters.

The analytical aspects of center-periphery perspectives will be used to help answering the basic research question and hypotheses put forward in this thesis. Not only will these aspects help explain the tendencies in water management in Central Asia in that they define the different actors concerned with water management. Center-periphery perspectives also capture the dynamics between these actors at different levels. The way these actors relate to each other is crucial for comprehending the situation concerning resource allocation and more generally it is fundamental for understanding the political systems of the Soviet successor states. Because center-periphery perspectives deals directly with the actors involved in water management, it will further help explain why cooperation on water has proved difficult after the breakup of the Soviet Union. Having analyzed the structures of water management, it will hopefully be possible to point out some elements that may enhance the system concerning water allocation.

I will open this chapter by accounting for why looking at center-periphery relations are beneficial when analyzing water management in Central Asia. In order to open for a pragmatic discussion of possible solutions, I seek to deconstruct the center-periphery concept into three more manageable elements. The chapter continues with a brief examination of some of the material that has been written about water management in Central Asia. By looking at how some scholars have treated the issues of water management, I can better explain and

justify my own choice of theory. The chapter ends with an elaboration of theoretical observations that will be used as the starting point for Chapter 4.

3.1 Breaking up the concept

3.1.1 Focus on center-periphery perspectives

In planning the outline and implementation of this thesis, I considered many different theoretical approaches before deciding to focus on center-periphery perspectives. This was however not finally decided before I had ended my field work. It is my opinion that this theoretical approach allows me not only to better understand the mechanisms behind water management, but that it also provides me with a tool for pointing out some suggestions for how the water situation may be mitigated. The role of the different actors and the way they relate to each other is crucial for understanding the complex water situation in Central Asia, and it will thus be beneficial to focus on the perspectives within center-periphery.

3.1.2 Weaknesses of this approach

The weakness of this approach is that it may fail to include the aspects of water management to a satisfactory degree and that the discussion thus will include too abstract concepts and be unsuccessful in explaining the water situation per se. In order to provide a solid platform for discussing the significance of center-periphery relations in water management and to keep the discussion on track, I seek to deconstruct the center-periphery concept into more concrete and manageable elements, e.g. decentralization, inclusive management and the top-down versus bottom-up approach. These elements are chosen because they provide a starting-point for discussing the role of local actors in water-related questions. Breaking the general concept of center-periphery into smaller and more concrete elements opens up for a pragmatic discussion of how problems related to water may be solved.

3.1.3 The three elements within center-periphery perspectives

The decentralization concept is essential when discussing water management and governmental structures because of the role decentralization has played since the dissolution of the Soviet Union (Paarmann 2007: 4). In 1991, power was decentralized from Moscow to the central decision-makers in the former Soviet republics, e.g. Kiev, Tbilisi and Tashkent. Within the states, power was decentralized from central to more peripheral actors. In Russia for instance, the Republic of Sakha (also known as Yakutia) obtained a significant degree of

economic autonomy and political sovereignty under Yeltsin (Kempton 1996: 608). In Kazakhstan, a significant devaluation of power from central to regional decision-makers took place in the years after the collapse of the Soviet Union (Paarmann 2007: 15).

By looking at aspects related to inclusive management I hope to be able to provide examples to how local participation can be organized in real life, and the top-down versus bottom-up aspect is useful because it highlights how center-periphery relations work in practice. By choosing these elements I will be able to link my findings to concrete concepts that hopefully will make me able to say something about how changing center-periphery relations may enhance the water situation. I will in the following chapters link the concepts of decentralization, inclusive management and top-down versus bottom-up management to the data I have collected.

3.2 Different perspectives – different theories

Different scholars use different theories to explain the water situation in Central Asia. As mentioned in Chapter 1, most studies conclude that the Soviet legacy is prevalent in today's system of water allocation. Elements of the old Soviet structures and features of transition still influence today's political picture and are thus being given much attention. Two theoretical approaches stand out in studies of resource management in Central Asia, one being the realist or zero-sum approach, the other being new institutionalism.¹⁴ In order to account for the literature that exists on the field of water management in Central Asia, I will in the following present a brief description of the two approaches.

3.2.1 The zero-sum perspective

The realist approach considers the resource situation as a zero-sum game where the different actors, i.e. the states, are trying to take as much water as possible for their own benefit without regard to the other states. This approach can explain how the actors are relating to water as a resource, and is excellent for explaining how the states allegedly seek to maximize their own profit at the expense of the neighboring states. However, because this approach is based on how the different actors are expecting the other actors to behave, it contains an inescapable element of uncertainty.

¹⁴ See for instance Malnes & Midgaard (2009) for more on zero-sum approaches and political theory in general. For more specific readings on new institutionalism, see Peters (2005).

Torjesen discusses whether a realist approach can be used to explain the mechanisms of water management (Torjesen 2003: 259). She argues that because each of the Central Asian states sought to maximize its own share of water resources - thus viewing the situation from a zero-sum position - a realist approach can be helpful in explaining the water situation. However, she continues, this approach is unable to explain how Uzbekistan has not acted more proactively in order to gain influence over future expansions in hydropower in Kyrgyzstan and Tajikistan. This being said, the realist approach does encompass the perspective of interdependence as a source of weakness. Torjesen points to Mearsheimer when she argues that the Central Asian states to a certain degree have taken this position and therefore seek to obtain greater control and self-sufficiency (Torjesen 2003: 262). The realist perspective is thus a useful tool because it accounts for conflicting national interest, describing how the interests of the riparian states Kyrgyzstan and Tajikistan are decisive for understanding why the Central Asian states clash over water.

A number of other scholars also discuss water administration in Central Asia from a zero-sum perspective. Micklin in his analysis of the causes behind the Aral Sea disaster emphasize irrigated agriculture as the main reason for the problematic water situation (Micklin 2000: 68) – as does Weinthal (2002). These two scholars argue that Turkmenistan's and Uzbekistan's need of water for the cotton industry is causing a situation where water is being used as a pawn in a resource game where the hydropower producing upstream states Kyrgyzstan and Tajikistan faces the water-thirsty downstream states Kazakhstan, Turkmenistan and Uzbekistan (see 1.5.1.5). As no framework for energy exchange is solid enough to tackle these challenges, this does in the end lead to conflict (Weinthal 2002: 26). As will be elaborated on in Chapter 4, clashes over water-resources happen all over the region. Shalpykova (2002) tries to answer how water disputes affect the political relationship between the riparian states of the Syr Darya basin, emphasizing the states' need for energy resources as the major driving forces of the riparian states.

3.2.2 Resource scarcities in a zero-sum perspective

Many scholars are describing resource scarcity from a conflict perspective, without necessarily focusing specifically on Central Asia. Homer-Dixon is arguing that environmental scarcities can lead to violent conflict within a state and that this tendency will be more frequent in the years to come because population growth will put further pressure on already limited resources (Homer-Dixon 1994: 39). Gleick (1993), following Homer-Dixon, focuses

more on how environmental scarcities can lead to conflict between states as well as within. Where Homer-Dixon is saying that scarcity-induced conflicts are mainly a subnational problem, Gleick argues that where water resources are scarce, competition for these limited resources can lead nations to regard access of water as a matter of national security (Gleick 1993:79).

Bichsel (2005) disagrees with the approach followed by Homer-Dixon and Gleick. Having researched how the role of aid organizations in the Ferghana Valley in Uzbekistan unintentionally contributes to sustaining conflict lines, she concludes that it is not the scarcity per se that is the key problem, but rather the manner in which the problem is being handled (Bichsel 2005: 54). Bichsel stresses that conflicts are misdiagnosed as driven by ethnic differences and scarcity of resources, when in fact it is the processes of authoritarian state building that generates the grievances behind the conflicts (Bichsel 2005: 54).

3.2.3 New institutionalism

The theory of new institutionalism is also used by several scholars dealing with water management in Central Asia.¹⁵ The theoretical concepts of new institutionalism are much used in economics and are basically emphasizing the role of institutions in society. More specifically it focuses on how institutions relate to each other and how they affect society. Those applying this theoretical framework in the Central Asian context analyze to what extent the Soviet legacy is still prevalent.¹⁶ By linking water management to the backdrop of the transitional context, Rønningen (2006) shows how new institutionalism is helpful in explaining why there has been a continuity of Soviet water institutions in the Central Asian countries. Also Sehring (2009) is using elements from new institutionalism in order to explain the dynamics of water management in Central Asia, and underlines how scarcity is rooted in power structures rather than in physical unavailability. The Soviet system of water administration is proving inefficient in today's context where the states are pursuing national interests rather than regional needs, and Sehring is trying to answer whether water institutional reforms can be effective (Sehring 2009: 19). Sehring's analysis identifies the factors that shape the water reform process and concludes that water institutional reform will only be a success when the reform process is adapted to the cultural and political conditions in

¹⁵ Micklin (2000); Weinthal (2002) and Rønningen (2006) are among the scholars that have applied elements of new institutionalism to explain the situation concerning water management in Central Asia.

¹⁶ See for instance Weinthal (2002) or Rønningen (2006) for more on the Soviet legacy in water management.

Kyrgyzstan and Tajikistan, i.e. when all the actors involved in water management agree to stick to a long term approach for securing good water governance.

3.3 Why the center-periphery approach?

As touched upon in the introduction to this thesis, water-related issues influence many areas, such as food, health and energy, that are all closely connected with water-issues. These water-related issues are discussed in various arenas, and influence political decisions at all levels of governance. The water situation in Central-Asia is indeed complex, but most scholars do regard it as a matter of unsatisfactory management rather than of water scarcity.¹⁷ This being said, it is necessary to emphasize the role climatic factors play when discussing the water situation, as changed water patterns due to climate change make both drought and flooding recurrent problems in the region (Naturvernforbundet 2010: 20). However, the structures of water management are the core issue. As noted above it is water allocation more than water amount that is to blame for water shortage in Central Asia. Lack of flexibility is also a central issue in this context. It is a general problem that once water quotas have been set, they are difficult to renegotiate (ICG 2002: 12). This inflexible system makes it difficult to adapt water quotas when water supply drops as a result of drought or other unpredictable factors. Examining which actors are involved and how they relate to each other thus provides a convenient entry for discussing water-related issues. By reviewing the actors involved in water management it will be possible to assess which actors that can be responsible for which tasks what water management is concerned.

3.3.1 Center-periphery relations in Central Asia

The Central Asian quintet has strong centers and rather weak peripheries. This is a legacy from the Soviet Union when decision-making usually took place at a high level of governance. As pointed out by Sehring (2009), the broad range of water governance institutions includes actors at several levels.

At the international level, both Kyrgyzstan and Tajikistan have signed agreements that restrict their usage of water resources for the overall benefit of the region (Sehring 2009: 186). Further, actors and discourses are contributing to establishing norms on water management at the same level. At the national level there are policy directions on water decided on by the government and experts within the ministries of water management. The water agencies, i.e.

¹⁷ See for example Micklin (2000) or Rønningen (2006) for scholars pointing to management structures when explaining the water situation in today's Central Asian states.

the *ObVodkhoz*, the *RayVodkhoz* and to some extent also the Water Users' Associations (WUAs), implement and have some decision making power in their area at provincial and at local level.¹⁸ Furthermore, formal and informal institutions at the local level are setting the framework to which water users orient themselves (Sehring 2009: 186).

The interaction between actors at the international, national, provincial and local levels is critical for understanding the water situation in Central Asia. Elements from center-periphery perspectives may thus serve as an explanatory framework for the analysis of the dynamics of water management in Central Asia. The Soviet legacy is still in force and decisions concerning water administration are still usually being adopted at the national level of governance, thus giving the center much control over what happens in more peripheral areas (Wiegmann 2010: 5).

3.3.2 Advantages of applying center-periphery perspectives

Both the realist/ zero-sum approach and new institutionalism are useful in explaining certain aspects of water management in Central Asia. The realist approach accounts for conflicting national interests in general, and for the elementary zero-sum aspect concerning resource-allocation, in particular. New institutionalism is a useful tool for analyzing the role of institutions in water management. More specifically it can be said that the realist approach to a certain degree can explain political decisions based on assumptions of how the opposing states will act. This is what Torjesen (2003) is doing in trying to answer how the Central Asian states traditionally have sought to maximize their own share of water resources (see 3.2.1). New institutionalism can also tell us something about how the different actors engaged in water management interact and about their influence on society. Rønningen (2006) and Sehring (2009), for instance, use new institutionalism to explain how there has been a continuity of Soviet water institutions in the Central Asian countries (see 3.2.3). What these theoretical frameworks have in common however is that they fail to include the dynamics between actors at the local and national level to a satisfactory degree. The center-periphery approach I apply will address these dynamics because it deals with the actors involved in water management at all levels of governance. It can thus be used to show where the balance between these actors should be for being most advantageous in terms of resource allocation.

¹⁸ The *Oblast Vodkhoz* (henceforth referred to as *ObVodkhoz*) is the water administration body at province level. The *Rayon Vodkhoz* (henceforth *RayVodkhoz*) is administrating water at district level. The WUAs consists of farmers and are subordinated these bodies. For more about the water administration structures in Kyrgyzstan and Tajikistan, see 3.4.1 and 3.4.2.

3.3.3 Center-periphery perspectives in other studies

The center-periphery approach is not new when it comes to explaining conflicts in general. Elements of this approach are also used in the study of resources, as many of them analyze power structures both within and between states.¹⁹ Scarborough (1998) for instance, points to how the dynamics between central and local actors were crucial for water management in the ancient Maya culture in the Yucatecan Lowlands (Scarborough 1998: 135). While the center-periphery perspectives have been applied by a number of scholars my approach is quite unique as it breaks the concept into concrete components relevant for discussing a certain topic. It will hopefully provide a rather untouched angle for discussing water issues in Central Asia. Problems related to water are expected to increase in the years to come and no efficient framework for water allocation exists to this day (Naturvernforbundet 2010: 20). Discussing center-periphery relations is useful as these relations will continue to shape the political dynamics of all the Central Asian states.

3.3.4 The center-periphery perspective in other studies - Central Asia

Center-periphery perspectives have traditionally been used to explain how economically advanced societies worsen the economic development of less developed regions (Galtung 1971: 103). However, the model is also used to explain the dynamics between central and peripheral regions within countries (Zarycki 2007: 110). Center-periphery perspectives are thus not offering a unified way of discussing a subject. Within the context of the former Soviet Union, the center-periphery perspectives have for instance been used for explaining the dynamics between the center, i.e. Moscow, and the resource-abundant peripheral region of Sakha (Kempton 1996: 587). The perspectives have been utilized as a framework for analyzing how decentralization has influenced politics since the dissolution of the Soviet Union (Paarmann 2007: 3). The center-periphery perspectives are further increasingly commonplace among analysts of comparative politics and has been introduced to the study of politics in the Soviet successor states to explain the centripetal forces that were unleashed by the dissolution of the Soviet Union (Kempton and Clark 2002: 4).

¹⁹ See for instance Gleick (1993).

3.4 The actors involved in water management

Before going into more detail, I would like to clarify how the terms local, provincial, national and international level will be applied in the following. The local level refers both to actors at the lowest level of governance, e.g. actors with a certain amount of decision-making power such as the *aiyl okmotu* in Kyrgyzstan and the equivalent *mahalla* in Tajikistan (Sehring 2009: 191).²⁰ The WUAs are also located at this level. The local level also refers to the actors located immediately above the lowest level of governance. In both Kyrgyzstan and Tajikistan, decision-makers at this level mainly include the *RayVodkhoz*, which is subordinated the *OblVodkhoz* at provincial level. The latter is directly subordinated the national decision-makers. At the national level we find the national policy actors in each country, e.g. actors such as the Presidential administration, the different government/ministry departments and the Parliaments. These actors also influence the international level, to which representatives from different international organizations belong. International organizations interact with national actors at all levels of governance.

Before providing an analysis of the center-periphery relations in Central Asia in the context of water management, it is important to present the actors that are involved at which level:

3.4.1 Kyrgyzstan

In Kyrgyzstan the *Department of Water Management (Departament Vodnogo Khozyajstvo*, henceforth referred to as *DepVodkhoz*) of the *Ministry of Agriculture and Water Economy and Processing Industry* is responsible for the implementation of water-resources policy also through the department's sub-branches *OblVodkhoz (Oblastnoe Upravlenie Vodnogo Khozyajstva i Melioratsii*, Province Water Administration and Amelioration) and *RayVodkhoz (Rayonnoe Upravlenie Vodnogo Khozyajstva i Melioratsii*, District Water Administration and Amelioration).²¹ The latter two are in charge of supervising the WUAs.

The WUAs are co-operative associations of individual water users working with water-related activities to their mutual benefit, and they constitute the lowest level of water management. The WUAs are accountable to the *DepVodkhoz* and have little decision-making power,

²⁰ The *aiyl okmotu* is an administrative unit within Kyrgyzstan that can consist of one or several villages. The *mahalla* is a loose concept that in this context best can be defined as a self-governing administrative unit at village or neighborhood level.

²¹ The data regarding the organizational outline of water management in Kyrgyzstan and Tajikistan has mainly been provided by the author. Some additional sources have been used to supply this material. See Sehring (2009) and waterwiki.net (online: Waterwiki – “Kyrgyzstan”; Waterwiki: “Tajikistan”). GIZ has also been providing data regarding this part.

although they are expected to be responsible for operation and maintenance of the irrigations systems in their area, in addition to contributing to conflict resolution in water-related disputes (Torjesen 2003: 251). Also subordinated the *DepVodkhoz* is *Kyrgyzenergo*, a state-owned energy company.

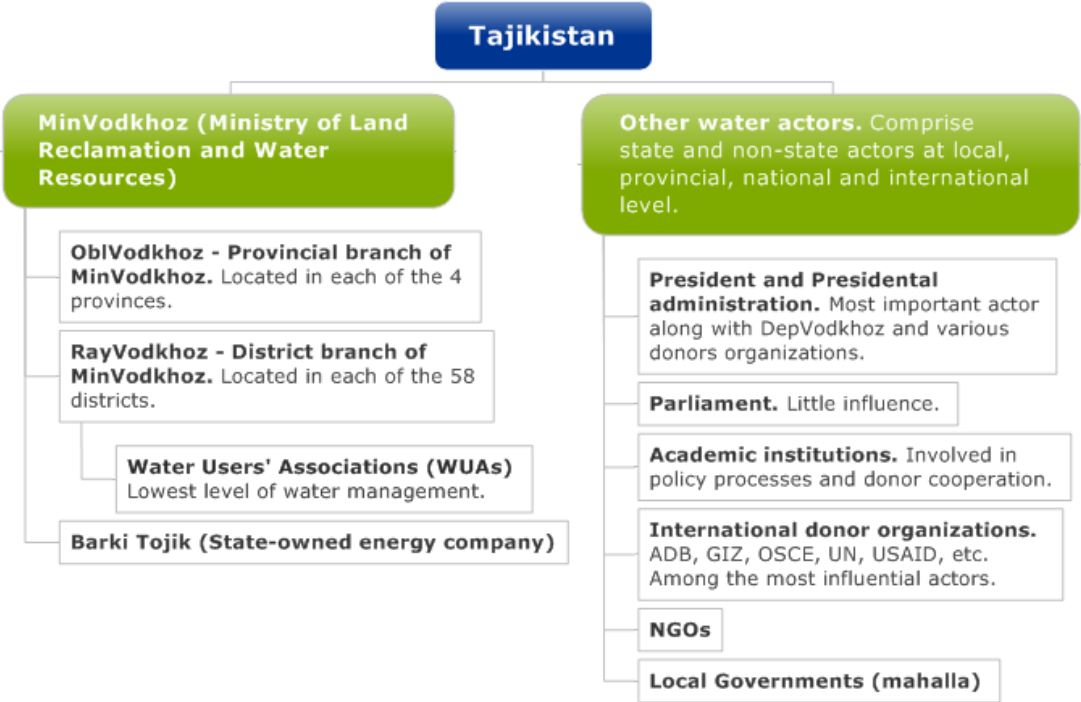
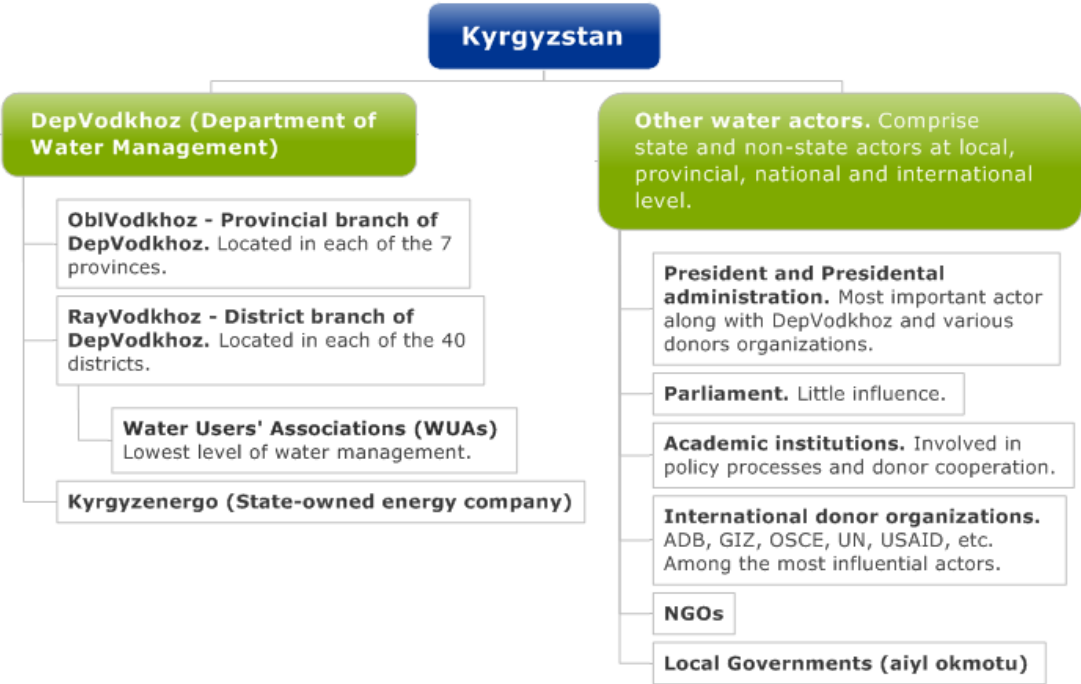
Other strong actors engaged in water management include the Presidential administration, who can overrule the other actors, and several international & bilateral organizations, such as the Asian Development Bank (ADB), United Nations (UN), the United States Agency for International Development (USAID), the OSCE and GIZ. These organizations co-operate with the Kyrgyz actors in charge, i.e. the Presidential administration or actors from the department, and they have little independent power. However, they can exert a certain amount of pressure on the actors in charge.

3.4.2 Tajikistan

The water management structures in Tajikistan are quite similar to those in Kyrgyzstan and they have remained almost unchanged since the collapse of the Soviet Union. *The Ministry of Land Reclamation and Water Resources (Ministerstvo Melioratsii i Vodnogo Khozyajstva*, henceforth *MinVodkhoz*) is responsible for policy formulation and implementation through the provincial and district branches of the Ministry, namely the *OblVodhoz* and *RayVodkhoz* all the way down to the lowest level. As in Kyrgyzstan, the WUAs constitute the lowest level of water management. Also here the WUAs are expected to be responsible for operation and maintenance of irrigation systems in their area, and for conflict resolution in water-related conflicts. The state-owned energy company *Barki Tojik* is also subordinated to the *MinVodkhoz*. The Presidential administration is the only other actor that holds a significant amount of decision making power. International organizations, such as the ADB, GIZ, the OSCE, the UN and USAID have a certain amount of power in that they can exert pressure on the actors in charge of water management.

3.4.3 Simplified model of the actors in water management

See next page for a simplified model of the actors in water management in Kyrgyzstan and Tajikistan:



²² Source: Own material, GIZ, Sehring (2009).

3.5 Deconstructing the concept of center-periphery

3.5.1 Center-periphery perspectives in a Central Asian context

When discussing center-periphery relations in the successor states, the key issue among both scholars and officials has been how to secure a stable relationship between the center and periphery that will secure autonomy without fueling fights for independence. Kempton and Clark argue that the key to secure stable center-periphery relations is to establish a balance between the absolute totalitarianism of the Soviet era and *de facto* autonomy for local governments (Kempton and Clark 2002: 317). This division implies that local governments must have power allocated but that this power must be tied to the central government. This is, according to the authors, the only way to make sure that the increased level of autonomy does not become the first step on the road to independence. Even though the level of central power is lower than it used to be, the center-periphery relations in Central Asia are still characterized by a vertical division of power where the connection is predominantly top-down.

The water management in Central Asia has traditionally been that of a top-down system where decisions have been reached at the high level and implemented without much involvement of actors located at lower levels of governance. The center-periphery relations function according to a principal-agent model where local authorities implement national policies under the supervision of central departments (Wiegmann 2010: 5). In the aftermath of the dissolution of the Soviet Union the different post-Soviet states experienced different levels of decentralization (Paarmann 2007: 5). In Central Asia the level of decentralization has been relatively low, and the states are all characterized by a strong center and relatively weak periphery (Kempton and Clark 2002: 317).

3.5.2 The concepts behind the term center-periphery relations

I have already touched upon how it may be valuable to deconstruct the concept of center-periphery into smaller and more manageable elements when discussing center-periphery relations in the context of water management. When looking at issues such as decentralization, inclusive management and top-down versus bottom-up management, I put the concept of center-periphery in a known context and thus open for a pragmatic discussion of water management.

3.5.2.1 Decentralization

A concept that goes under the center-periphery umbrella is the concept of decentralization. As earlier stated, all the Central Asian states have a high degree of centralized governance, thus giving actors at the lower levels little chance of intervening in the decision-making process. Local authorities may ask to be given a set amount of water but it is up to the central authorities to decide how much water that will be allocated. Delegating political, economic and administrative power to provincial or local levels gives more decision-making power to local actors. If the local actors are those best equipped to state the needs of the local level, this is a clear benefit of decentralizing power. Decentralized government is likely to have better knowledge concerning the needs at local level and should be capable of finding useful solutions (NIBR 1997: 18). Systematic use of decentralization may enroll new actors and unused resources, thus building capacity at lower levels of governance. On the other hand, understanding own needs does not necessarily constitute being competent in the field of water allocation, and some argue that decentralization leads to a lower level of competence. Ostrom argues against this claim and underlines how local participation is crucial for securing efficient management of natural resources (Ostrom 1994: 2). Emphasizing how designing effective rules to manage resource systems is difficult no matter what institutional arrangements are used, she argues that the social capital of those directly concerned with the particulars of a local situation should not be underestimated. Involving local actors in cases involving water allocation has showed positive results also when discussing water management in Central Asia. This will be discussed further in the following chapters.

3.5.2.2 Inclusive management

The concept of inclusive management is also relevant when discussing water administration in a center-periphery context. The concept refers to how public and political actors collaboratively address concerns of public interest (Feldman and Khademian 2004: 4). This is in our context when local actors are included in matters concerning water management. The benefits with this approach are similar to those of decentralization and a semi bottom-up approach (see 3.5.2.3) in that they generate better understanding for the concerns of local actors. The approach further builds out the capacity on lower levels of governance, thus making new platforms for action.

Feldman and Khademian (2004) discuss how inclusive management is useful when it comes to creating more resources, for instance in a company. The authors argue that by including new actors one opens for addressing the concerns of these actors. This is beneficial because by building relationships and creating trust between the different actors, a capacity for making collective decisions is built, thereby allowing several actors to contribute (Feldman and Khademian 2004: 16). The use of inclusive management techniques helps to develop knowledge about how to work together and may also create political capital in form of public support for projects. Cooperation, the authors argue, is likely to be stronger when the public has participated in the development process of a project.

3.5.2.3 Top-down versus bottom-up

The general description of top-down management is a situation where a person or a body makes a decision that affects actors that have little or no ability to affect the decision-making process. This situation can be seen in Tajikistan, where the rayons, i.e. the districts, have little scope of action due to financial shortages and because policies are developed at the national level (Wiegmann 2011: 5). There are orders coming from above but no demands going up from below. The benefit of the top-down approach is that it is rather uncomplicated to reach consensus and to implement measures when fewer actors need to be consulted. The top-down tradition thus gives a high degree of efficiency, although it requires strong organizations at the central level with enough decision-making power to ensure that central decisions are complied.

3.5.3 Disadvantages by top-down policies in water management

When discussing water management in Central Asia, the disadvantages of directing water management in a top-down manner may be larger than the benefits it provides. Decisions taken at the top level without the involvement of local actors make it harder for the local actors to accept the decisions, thus impeding efficient collaboration. This is also caused by lack of efficient control of local authorities. Including local authorities may thus contribute to making these actors more responsible. Further it may be inconvenient for decision-makers at the central level to make decisions that concern areas far away and of which they have little knowledge and understanding. Another problem that arises is the cases of dual subordination between central ministries and provincial and local administrators. Administrative bodies such as *ObiVodkhoz*, *RayVodkhoz* or WUAs, are often not aware of what their responsibilities are,

which in turn creates a situation where nobody takes charge. In other situations the dual subordination creates an overlapping of tasks between the central and local levels (Wiegmann 2011: 6). A straight top-down policy is therefore not the best solution concerning decision-making, neither in water management nor in general.

3.5.4 Unwillingness to accept central decisions

Worth mentioning in this context is how a top-down approach may not work the way in real life as it appears on paper. In Uzbekistan for instance it is a big problem that water quotas that are fixed at the central level are not being complied with the local levels. Pressure from local decision-makers make the central authorities allocate too much water to some oblasts, resulting in other oblasts not getting the water they need. Added to this, some oblasts take too much water without consulting central authorities (ICG 2002: 21). An example of this way of doing politics can be seen in the oblast of Karakalpakstan. The oblast is located at the lower end of the Syr Darya basin and is experiencing grave problems because of insufficient water supply. Poor planning and local pressure is to blame for the different provinces exceeding their water quotas, which in turn has caused the well-known natural disaster in the Aral Sea (ICG 2002: 22).

3.5.5 Are bottom-up initiatives likely to contribute to cooperation?

Several of the respondents who contributed information to this thesis emphasized that cooperation in itself has a mitigating effect because involving actors at the grassroots level will give all actors involved a better understanding of which measures that are needed at the different levels of governance. It also allows for experimenting and testing what will be the best measures to implement in each case. These possibilities will be discussed further in chapters 4 and 5. One of the three hypotheses (H2) discussed in this thesis is that cooperation at the local level will be beneficial when water management is concerned. Involving local actors in a bottom-up manner to a larger degree than what is being done today may create an increased sense of community spirit as far as water allocation is concerned. If local actors are given more opportunity to cooperate with other local actors, this may have a stabilizing and mitigating effect per se. Involving more local actors may on the other hand contribute to more quarreling about scarce resources because more actors and thus more interests are clashing. However, efficient cooperation on water management is likely to be conflict mitigating. Then

when all involved actors get to be a part of the decision-making process, this will contribute to ease resource-fueled tensions.

3.5.6 Disadvantages by a straight bottom-up approach

On the other side, having a straight bottom-up approach is also not ideal. Involving more actors and let more people have a say in the decision-making process will make it harder to reach consensus and to implement measures. It will also be harder to react quickly in case of drought or other unforeseen events affect water supplies. The process will thus take more time, and the chances of satisfying all the involved actors are slim. These arguments may be applied by someone critical to local involvement in in water management and will be discussed further in Chapter 5.

3.5.7 Will involving local actors affect the level of corruption in water management?

Involving local actors in water management will probably to a larger extent affect the level of corruption. Corruption is a big problem in terms of water allocation (Micklin 2000: 64). As will be discussed in Chapter 5, this is partly due to the low income level among employees in public sector (van Rijckeghem and Weder 1997: 22). Micklin (2000) argues that the centralized systems of water distribution make it easy for the people in charge to ask for something extra for water to be delivered (Micklin 2000: 66). According to him, it is relatively easy for the administrators to ask for payments for favorable treatment because the local and provincial administrators are powerful and have sway over the local population. Chapter 5 will discuss whether actors at different levels are equally prone to corruption.

3.5.8 Summarizing the concepts

This examination of different elements of the center-periphery concept shows that balancing power is crucial for making efficient water management. Center-periphery relations in Central Asia are still predominantly top-down, but involving local actors to a larger degree will most likely be beneficial in terms of water management. As will be seen in the following chapters neither a pure top-down approach nor a straight bottom-up approach is the best way to go about water management. It will prove more efficient to apply elements from both approaches. This is likely to give local actors a say in decision-making that concerns their daily way of life, and at the same time securing that decisions taken will actually be

implemented. The model presented in this chapter shows this: decentralizing power from the central level down to local actors gives more decision-making power to actors at the local level. This will contribute to building capacity at lower levels of governance. If actors from different levels of governance collaboratively address issues of water management and all the involved actors contribute with their specific knowledge, this is likely to help mitigating the water situation.

3.6 Conclusion

In this chapter I have argued that using elements from center-periphery perspectives is valuable when discussing water management in Central Asia. The approach covers the role of the different actors involved in the decision-making process concerning resources and show how these actors relate to each other. The role of the different actors and also the manner in which they interact is crucial when discussing the complex water situation in Central Asia. The center-periphery perspectives thus offers a more including theoretical style than other much used theories in this field, such as the zero-sum approach and new institutionalism.

By splitting the concepts of center-periphery into smaller elements I have created a platform for discussion and illustrated how the water situation can be mitigated. The basis for further analysis and discussion has thus been made. By considering the benefits and disadvantages of different aspects of the center-periphery perspectives, I have pointed to some possible steps that may be taken in order to mitigate the water situation in Central Asia. The theoretical framework invites to a further discussion on whether increased local participation may be useful in water management. Such a discussion is provided in the following chapters, where the theoretical framework will assist the analysis of my empirical data.

CHAPTER 4 Case Study

In the first chapter of this thesis I explained how water shortage in certain regions is interacting with other conflict-triggering factors, and that water thus plays a significant role in a conflict. A special initiative has been made to find a way to allocate the water resources in the area in order to mitigate the tensions that are fueled by water shortage. The project “A Source of Peace – Transboundary Water Management in Central Asia” (TWM) emphasizes the use of local level actors in water management and points to new ways of resolving water issues. The project was initiated by GIZ, but will eventually be self-run by local and regional actors. The main idea behind the project has been to reintroduce integrated solutions in the water sector based on voluntary cooperation by local actors. The project may thus provide an example of how local actors can be included in water management and will, as projected in Chapter 1, serve as a case study for answering the overall question of this thesis, namely if increased involvement of local level actors can mitigate the problematic water situation in Central Asia.

I will in this chapter start by making references to a similar project on water management, namely the Chu-Talas project in Kazakhstan and Kyrgyzstan. This is done in order to compare the TWM project to a project that deals with similar challenges. This is particularly useful, given that the TWM project has not yet come to an end and that it is therefore too early to assess the project’s full impact, both in terms of water management and level of water-related tensions. The presentation of the Chu-Talas project is followed by an account of the TWM project. This account shows how local actors can be involved in water management and also illuminates the center-periphery relations between the actors involved in the project. I start by explaining the background to the tensions among the border communities, before presenting the TWM project itself. In doing so, I demonstrate how the center-periphery relations affect water management in Kyrgyzstan and Tajikistan. Finally, I discuss whether or not the TWM approach to water management is beneficial for allocating water, and whether this model can provide some general suggestions for how to mitigate tensions fueled by water shortage.

4.1 Background to the tensions

4.1.1 Uneven distribution of water

The Ferghana Valley is prone to conflicts and the border communities in the area that was described in chapter 1 have experienced clashes for the last 60 years (UNDP 2011b: 6). In

post-Soviet time these cross-border tensions have been exacerbated further by the lack of access to natural resources.²³ Chapter 1 referred to how tensions earlier mainly concerned water. There are now nevertheless land-induced tensions as well because more people have to share the same limited resources as a result of rapid population growth (UNDP 2011b: 38). Still, it is the uneven distribution of water resources that is the main conflict risk factor. Inadequate mechanisms for allocating water and an unwillingness from different groups of water users to relate to each other's problems is aggravating negative behavior on both sides.

There is a low level of tolerance between Kyrgyz and Tajik communities and people lack understanding for the need of the water problems to be dealt with in cooperation (UNDP 2011b: 37). Tajiks that lives upstream of the Isfarinka River – one of the contributory rivers to the Isfara River - are using excessive amounts of irrigation water, thus weakening the water stream in Kyrgyz villages further downstream, that in turn use water intended for Tajik villages even further down the river.

Geographical particularities are further aggravating the situation. In the Batken oblast in Kyrgyzstan there is a large minority of Tajik citizens, in addition to a small Uzbek minority. The situation on the Tajik-Kyrgyz border is complicated, with several Tajik enclaves being located inside the Batken oblast – as a result of which villages have been partitioned and Kyrgyz majority groups find themselves on the Tajik side of the border.

4.1.2 Failed projects

When the all-union framework for addressing water issues disappeared with the collapse of the Soviet Union, the newly independent states needed to find new means of administering water distribution (see 1.5.2). None of the Central Asian states had the experience required to administer the water resources in an efficient manner and poor water distribution caused much frustration. The manner in which water management deteriorated after the collapse of the Soviet Union will be discussed in Chapter 5. As a result of the increased frustration among the populations in Kyrgyzstan and Tajikistan regarding the water situation, initiatives and joint water agreements are today constantly being ignored because people doubt the authorities' ability and willingness to establish an effective agreement on water management (UNDP 2011b: 33).

²³ The term "natural resources" refers here to water but also includes grazing fields, farm land and forests.

According to the Conflict Prevention Specialist (IN-14²⁴) from the UNDP office in Khujand, the main aim of cooperation projects in this area has been to resolve already existing conflicts rather than prevent new conflicts from occurring – in other words the emphasis has been on mitigating the symptoms of conflicts rather than eliminating the causes. Some of the reason as to why it is so hard to establish functioning cooperation projects in this region is that little attention is given to conflict analysis. Knowledge of conflict-preventing measures is thus low. Bichsel argues that conflicts in the Ferghana Valley often are misdiagnosed as driven by ethnic differences and scarcity but that the conflicts rather are a result of the processes of authoritarian state building (Bichsel 2005: 54). There is also an absence of mechanisms for monitoring agreements, in addition to lack of sanctioning mechanisms if bilateral agreements are being violated. Frequent changes in government personnel and low level of involvement of civil actors also in part explain why projects on joint water management are hard to implement in this specific region (see 4.3.2 for map of the region).

4.2 Chu-Talas

4.2.1 The Chu-Talas project as a model for the TWM project

When preparing the agreement on the joint management of Isfara and Khodzha-Bakirgan - i.e. the TWM project - , the participating actors studied the background to, and experiences with, the Chu-Talas basin agreement. This agreement was the first – and until the establishment of the Isfara and Khodzha-Bakirgan agreement also the only – bilateral agreement to deal with the joint management of transboundary river resources in Central Asia. The agreement facilitates the sharing of the water of the Chu and the Talas river basins between Kazakhstan and Kyrgyzstan, and is based on principles of integrated water resources management (IWRM).²⁵ The Chu-Talas agreement constitutes a breakthrough in Central Asian water relations in terms of sharing water resources between upstream and downstream countries (Libert 2008: 39). Sharing of water between states has traditionally been characterized by tension but by this agreement Kazakhstan and Kyrgyzstan have managed to peacefully collaborate on water-sharing.

²⁴ IN = Interview number.

²⁵ IWRM (Integrated Water Resources Management) approaches involve implementing sustainable solutions to water problems applying knowledge from several disciplines and different actors. The basic idea behind the concept is that because water is a complex resource, the management for dealing with water should be combined and manifold as well.

In an interview in Dushanbe in the beginning of August 2011, GIZ's National Water Expert (IN-1) pinpointed how the agreement between Kazakhstan and Kyrgyzstan on dividing the water from the Chu and Talas river basins works as a model for the TWM project. He said that the idea behind projects like these is that there were no water problems in the Soviet Union and that the solution to today's water problems is to create one concrete mechanism that can deal with the challenges of water allocation. The situation concerning Isfara and Khodzha-Bakirgan river basins resembles the one of Chu-Talas, where two countries are sharing water resources and where both countries have a lot to gain from cooperating on the management of these water sources. This respondent further explained that the situation is special in Tajikistan as extreme population growth is affecting not only the water situation, but also raises special needs in terms of land distribution and infrastructural measures et cetera.

4.2.2 Advantages and disadvantages by using the Chu-Talas model

The approach presented by the Chu-Talas project involves the inclusion of local stakeholders and local water users have been invited to participate in focus groups. The aim of the focus groups has been to enhance the dialogue between lay water users and experts (Kangur 2008: 134). This way of involving local actors has been beneficial in that it has articulated some of the problems of lay water users. However, the model does not allow feedback from other stakeholder groups or from the authorities, meaning that the approach first and foremost is useful when it comes to clarifying the needs of the different stakeholders before the real decision-making process starts (Kangur 2008: 141).

4.2.3 Has the Chu-Talas project been successful?

The Chu-Talas agreement has been promoted as a success by many, also by the initiators of the TWM project. However, its success factor is in truth contested. In terms of amount of delivered water, upstream Kyrgyzstan has indeed fulfilled its water supply obligations to Kazakhstan. The two countries have also succeeded in finding a way to share the costs of operation and maintenance of the river basins. But Kyrgyzstan has additionally changed the rivers' water schedule by adjusting the operation of the water reservoirs on its territory (Wegerich 2008: 128). Kyrgyzstan is using the water for hydroelectric production and is therefore sending water downstream when it suits best for energy production and not for agricultural purposes. This is resulting in Kazakh farmers not getting the water they need during the growing season.

Kai Wegerich (2008) is speculating if Kyrgyzstan is using its upstream position as a bargaining tool to pressurize Kazakhstan to share costs for operation and maintenance of the river basins. The discourse around the project has been much focused on goals to be achieved in the future and the perceptions of good relations between the two states are probably stronger than the relationship per se (Wegerich 2008: 128). However, the success of the project is not absent and the project has demonstrated that cooperation on water management can function (Bure 2008: 138). The project thus provides an example on how cooperation on transboundary rivers can be managed. An additional outcome of the Chu-Talas project is that it has highlighted the need for the international community to be involved in interstate cooperation (Wegerich 2008: 129). This last point was important for GIZ when deciding which role they should play in the TWM project.

4.3 The TWM project

4.3.1 About GIZ

GIZ is a bilateral organization established by the German Government. The organization operates in the field of international cooperation for sustainable development and currently has projects in more than 130 countries. The fundamental idea of the organization is that sustainable development will be achieved by empowering people to take responsibility for their own development processes. GIZ therefore operates in close collaboration with partners at local, provincial, national and international level. The projects GIZ implement in Central Asia covers a variety of fields, such as health, legal reform, conflict prevention and sustainable resource management. The latter has received much attention lately, and transboundary dialogue on water management has become one of GIZ's most important areas of focus in Central Asia. GIZ was engaged by the German government to run the TWM program (Bichsel 2011: 28). The program aims at enhancing the expertise of supra-state water management institutions and the IFAS. Improvement of transboundary river management of the Isfara and Khodzha-Bakirgan basins is an additional focus. It is mainly the latter focus that is interesting in terms of involvement of local level actors, as the project aims at including actors from all levels of governance in the decision-making process. For an overview of the actors involved in the project, see 4.3.4.

4.3.2 The river basins Isfara and Khodzha-Bakirgan

The two river basins Isfara and Khodzha-Bakirgan provide water for people living in the Batken Oblast in Kyrgyzstan and the Sugdh Oblast in Tajikistan (see map). People in this area

are dependent on water from these two rivers for both drinking water and for irrigation. The old water distribution system is causing a high loss of water because of poor maintenance of canals. Besides, lack of experienced water managers makes water allocation inefficient and difficult.

MAP OF BATKEN AND SUGDH²⁶



4.3.3 The idea behind the project

The TWM project's main goal is to increase the institutional capacity of the two countries. The project started when the two countries' governments established *the Interstate Kyrgyz-Tajik Commission*²⁷, thus creating *the Inter-Ministerial Working Group* for cooperation on the transboundary river basins. It was decided that the project would be implemented in two phases. The first phase would run from 2009 through 2011, and the second phase would last from 2012 until 2014. As a first step towards meeting the project objective, the water management organizations for Batken and Sugd oblasts were assisted in setting up comprehensive river data base systems. At the same time the inter-ministerial working group supported the drafting of an interstate framework agreement on transboundary river basin management. This agreement was signed by the stakeholders in August, 2011 and is the legal

²⁶ Source: UNEP, GRID-Arendal. Note that Sugd Oblast is transcribed "Sogd" on the map.

²⁷ There is another organization with the same name working on issues that are not related to water. The organization referred to here is nevertheless the body established as a part of the TWM project.

basis which upon *the Joint Water Commission, the Basin Committee and the Secretariat* was established (see 4.3.4).

The joint management project presupposes that having one concrete basin plan will be more efficient than if the two states only allocate water in accordance with their own needs. One of the main aims of the project is the capacity building at national, provincial and local level on both the Kyrgyz and the Tajik side. The main idea behind the initiative is that involving local actors is beneficial when it comes to water allocation and the project is therefore aiming to ensure public participation in the management of the river basins. More specifically it focuses on the establishment of mechanisms for public participation in decision making concerning the joint management – i.e. the creation of a platform where local and provincial actors meet to discuss water management.

Measures for ensuring capacity building are two-fold. The first requirement for involvement of the local population in the cooperation is awareness-raising (online: *The Water Chronicles - “Joint management of Isfara and Khodzha-Bakirgan river basins”*). The project therefore informs the local population about the joint management. The second requirement is to establish mechanisms for public participation in decision making on transboundary river basins. This is done by creating joint institutions on transboundary river basin management that will be equipped with tools for management and necessary capacity to take efficient decisions.

4.3.4 The structure of the project

The structure of the joint management project reaches from international down to local level and embraces a variety of actors. GIZ’ main project partner is *the Kyrgyz-Tajik Inter-Ministerial Working Group*. The Kyrgyz group is led by the Chairperson of *the State Committee on Water Economy and Amelioration*. The group is further composed of central representatives of the latter body, local representatives of Batken oblast and by rayon water management organizations. The Tajik group is led by the Minister of *the Ministry of Land Reclamation and Water Resources* and is composed of central representatives from the ministry and of representatives of the oblast and rayon’s water management organizations. GIZ’s role is basically to assist the cooperation by facilitating the conditions for the Kyrgyz and Tajik actors. The institutional framework for the joint management of the transboundary river basins refers to the legal base for establishing joint institutions like *the Joint Water*

Commission, the River Basins Committee and the Secretariat. These project activities are managed by international law and international practice, and are influenced by the experiences of *the Chu-Talas River Basin Commission*.

4.3.5 About the agreement

The different stakeholders of the project met to sign the TWM agreement in Khujand in August, 2011. Amongst the stakeholders were representatives from the Kyrgyz and the Tajik water ministries, representatives from the oblast and rayon level water management bodies, in addition to five representatives from GIZ (for more details about the stakeholders that participated at the meeting in Khujand, see 4.3.4). The cooperation between Kyrgyzstan and Tajikistan is implemented by that the states are fulfilling a number of measures stated in the agreement. The agreement consists of 20 points, ranging from vague formulations on the importance of cooperation to more concrete statements of how the cooperation will be conducted in practice.²⁸

4.3.6 The relationship between local/central actors within the project

The actors from *the Kyrgyz State Committee on Water Economy* and the *Tajik Ministry of Land Reclamation and Water* constitute the most central level within the TWM project. Subordinated to this level are the actors at oblast level, i.e. *OblVodkhoz*. The lowest level within the TWM project is made up by actors from water management bodies at rayon level, i.e. *RayVodkhoz*. Actors at lower levels, such as representatives from WUAs, are not included in the project. However, the local population in the area has been consulted throughout the project in order for the stakeholders of the projects to gain input from local actors.

4.4 What impact will the TWM project have on water management?

4.4.1 Will the TWM project be a success?

The TWM project is still in progress and it is therefore too early to determine to what extent the project will succeed in actually securing better water distribution. Assessing the effects of measures taken in order to reduce tensions and conflicts often takes much time and it is also

²⁸ The first point of the agreement does for instance quite vaguely state that the purpose of the agreement is to strengthen the cooperation concerning Isfara and Khodzha-Bakirgan river basins. The fourth point is more concrete in that it includes which measures that will to be taken in order to implement the agreement. These measures encompass the need of establishing *the Joint Water Commission, the Basin Committee and the Secretariat*.

too early to say if the project has reduced tensions related to water in the Batken and Sugd h oblasts. However, already at this stage it is possible to point to some aspects of the agreement that concerns the involvement of local actors in water projects.

The project has not met any significant challenges since its start-up in 2007. There have indeed been challenges of minor administrative character. Also including Uzbekistan in the project proved to be so difficult that the idea of a three-state initiative including Kyrgyzstan, Tajikistan and Uzbekistan was quickly replaced by today's bilateral agreement between Kyrgyzstan and Tajikistan. However, the agreement has so far been implemented more or less according to the plan. When I interviewed four GIZ-employees (IN-7a, IN-7b, IN-7c, IN-7d) in Khujand right after the signing of the agreement, they expressed almost surprise at how smoothly the process of signing the agreement had proceeded.

4.4.2 Future hopes for the TWM project

When asked about their hopes for the project in the long-term perspective, the GIZ-employees emphasized the project's official goals, i.e. that the measures will give better distribution of water and enhance bilateral cooperation, thus reducing the tensions between the Kyrgyz and Tajik populations in the Batken and Sugd h oblasts. Another point was how they hoped that the project will serve as a good example for water management in Central Asia, and that other actors may start similar initiatives. The respondents did also emphasize the way projects like the TWM are beneficial in terms of attracting donor-investments.

One man whom I spoke with from the Tajik *OblVodkhoz* (IN-10) also expressed his enthusiasm for projects like the TWM and Chu-Talas. He emphasized the importance of involving local actors in water management. As will be seen in Chapter 5, the *OblVodkhoz* is vulnerable to corruption and were by many of my respondents considered an obstacle for efficient water management. Including more local actors in water management will not necessarily pose a threat to the impact of the *OblVodkhoz*. However, given that one of the outcomes of including several actors (see inclusive management, 3.5.2.2) is that power is divided among several actors it is not unlikely that a bigger number of actors involved in water management will reduce the impact of the *OblVodkhoz* in the long term. One may therefore question the sincerity of the enthusiasm the representative from the *OblVodkhoz* expressed over measures that will increase local level involvement in water management. It is not my intention to imply that even though the *OblVodkhoz* is prone to corruption all its employees have personal interest in cases regarding water distribution – i.e. that all officials

working in the sector are dishonest. One may nevertheless question the sincerity in statements like the one above.

4.4.3 Possible traps

Talking about measures to be implemented will not necessarily result in the goals of the project being fulfilled. The TWM project has indeed proceeded smoothly so far but it is crucial that the actors involved continue to follow up on the agreed measures. Wegerich (2008) argues that the stakeholders from the Chu-Talas project risk not fulfilling their project's goals. According to him, the discourse around this project has been much focused on goals to be achieved in the future rather than on dealing with past events. This means that the perceptions of good relations are probably better than the real relationship. This viewpoint should be kept in mind during the further implementation of the TWM project.

4.5 Conclusion

In this chapter I have presented the TWM project. This has been done both to provide an example of how local actors can play a bigger role in water management, and to exemplify the center-periphery relations between the actors involved in water management in Central Asia. Because the project has not yet been completed, it is too early to decide to what degree it has proved successful. However, by accounting for what has been achieved so far and by comparing the TWM project to a similar initiative, I have showed that the project has been succeeding in reaching their goals so far in the process. However, the stakeholders of the project should be careful not to focus too much on future plans and instead take learning from the Chu-Talas project and focus on the measures that need to be taken here and now. The experiences from this chapter will be important in the next chapter where I analyze whether local actors should be included in water management to a larger extent.

CHAPTER 5 Discussion

This chapter seeks to answer the thesis' overall research question, namely whether increased involvement of local level actors can improve water management in Central Asia. In order to answer this question I will apply the theoretical concepts presented in Chapter 3, i.e. the concepts of decentralization, inclusive management and the top-down versus bottom-up approach. By linking theoretical and empirical findings, the discussion will center on the three hypotheses presented in chapter 1.

I start by discussing how conflicts at international and local level in Central Asia are linked to water issues. The main focus of the thesis is indeed on the local level but because understanding the overall structures of water management in Central Asia is so important also when discussing local level involvement, conflicts at the international level will to some extent be dealt with as well. I discuss how the states' lack of a mutual trust and the inadequate framework for dealing with water management are decisive with regard to how they relate to water resources. I also assess to which extent corruption within the *OblVodkhoz* is destabilizing the water situation and I seek to answer whether involving local actors may reduce the impact of this body, thus possibly decreasing the level of corruption in water management.

In the second part of this chapter I discuss which measures that are needed in order to secure local involvement in an efficient manner. Here, I argue that perspectives of inclusive management may be applied in order to secure the necessary capacity building among local level actors. I follow up by elaborating on the role of international actors in a donor setting, and ask whether donor activity has a negative impact on water management in terms of corruption.

In the third part of this chapter I draw lines to the TWM project and discuss the manner in which this project involves local actors with a view to mitigating the water situation. I argue that the project appears to be succeeding in establishing a small-scale framework for water management and in doing so, also in creating a common goal for the actors involved in the project and building trust between the states. I further ask whether it would be beneficial to involve actors from a lower level of governance than the project does. The chapter is ended with some observations on how local cooperation may facilitate cooperation between national states in Central Asia.

5.1 Causes of conflict

In Chapter 3 I explained how the system of water management in Central Asia provides actors located at central level almost executive control over what happens in peripheral areas and how a few strong actors are setting the rules according to which water users orient themselves. The central actors are not necessarily best placed to determine the needs of more peripherally located areas of which they tend to have little knowledge. This has contributed to poor water management in many places throughout Central Asia. Today, there are tensions between the Central Asian states at the international level as well as between people at local level (see Chapter 4). The main focus of this thesis is how local level actors can be better included in water management. It is therefore beyond its scope to thoroughly address the various measures that may be taken at international level so as to mitigate the water situation. Understanding the overall structures of water management is nevertheless crucial for discussing local level involvement. The international aspect will therefore be included to some extent.

5.1.1 Causes of conflicts at the international level

At international level, upstream states face downstream states in what some scholars refer to as "a resource game" (see 3.2.1). This was also emphasized by many of the respondents. Tensions at state level are connected with the structural conflict between the upstream states and those states located downstream in the river basins. In the first chapter of this thesis I explained that in the Soviet Union, the union republics were tied together in a reciprocate system of resource sharing where the upstream states provided water to the downstream states in return for gas and coal during winter time. Since the collapse of the Soviet Union, the Central Asian states have pursued national interest rather than focusing on what would benefit the region as such (see 1.5.2).

5.1.1.1 Lack of trust between the states

Shalpykova (2002) notes that since independence, the Central Asian states have been disagreeing about the use of water. While the upstream states have pursued large-scale projects to develop the countries' hydropower industries, the downstream states have been more focused on maintaining and further develop the agriculture sector (Rønningen 2006: 16). Nevertheless, agriculture constitutes a vital part of the economies of all the Central Asian states (Torjesen 2003: 363). In Uzbekistan, for instance, it accounts for 20 per cent of the

GDP, in Kyrgyzstan – for 21 per cent and in Tajikistan for 21 per cent of the GDP (online: The World Bank: “Agriculture, value added (% of GDP)”).

A Project Coordinator from Biom (IN-15), a Kyrgyz environmental NGO, explained that the Central Asian states are disagreeing about how water can best be allocated. The view that the Soviet system is not working in today’s reality given that the states have their own interests, was an opinion that was expressed by several of the respondents. According to a professor of history (IN-6) and Director of “Sharq”, a Tajik NGO, the Central Asian states are prioritizing their own wishes rather than paying concern to the wishes of their neighbors. He explained that the notion that the countries are more interested in their own national needs than trying to find a solution that will benefit the whole region is a common conception among people dealing with water management.

The Director of an NGO located in Shurab (IN-13) explained how the friendship between the countries has been deteriorating since 1991 and that going independent has made the Kyrgyz, the Tajiks and the Uzbeks more conscious about their ethnic belonging. Besides, people tend to focus more on ‘their area’ now than they did earlier. The Director of “Shoto” (IN-12), another Tajik NGO, argued that agreements are often not respected and that this makes it harder to develop a common structure for water management: *“It is hard to do water politics today (...) young people are thinking in a new way (...) it is a problem that people today are so concerned about what belongs to them.”* The different wishes of the states are with other words interacting with a growing lack of trust among the states, thus aggravating the conditions for interstate cooperation on for instance water.

5.1.1.2 Inadequate framework

Rønningen (2006) explains that in the Soviet Union, the former republics that now constitute the Central Asian states, were joined together in a common system of resource sharing. This system functioned well at the time. However, it has not functioned satisfactory after the Soviet Union collapsed and the states started pursuing national interests (see Chapter 1). In the first chapter of this thesis I described how the Central Asian states after 1991 had to create their own systems for water management. The Soviet legacy was that of a water system where those in charge of water management were located at the central level. Several of the respondents argued that water-related conflicts have mainly been a problem after the collapse of the Soviet Union because there is no longer a common framework for addressing water issues. The Director of Sharq (IN-6) argued that water management was easier when it was

made by one big cooperation body rather than by several small units. This view was supported by one employee at the OSCE in Tajikistan (IN-5), who stated that there is a new rhetoric now, which emphasizes how everything supposedly was better in the Soviet Union.

Nostalgia for the Soviet era concern more than water management only. When the Soviet Union collapsed, many people were thrown out in economic hardship as a consequence of the introduction of capitalism in a society that was unprepared for it. This made many people long back to the stable model of communism (Fitzpatrick 2007: 61). This yearning for old times is still evident today, but scholars more or less agree that such nostalgia is more an expression of dissatisfaction with present conditions rather than a real wish to return to life as it was in the Soviet Union (Holak *et al.* 2008: 651).

A German national working for OSCE in Tajikistan (IN-4), argued that there were less quarreling concerning natural resources during the Soviet period: *“In Soviet there were hardly any conflicts between the states”* (sic).²⁹ He continued by saying that the exchange of energy worked well and that the countries cooperated. Also GIZ’ National Expert in Tajikistan (IN-1) described the Soviet period as a time with less tensions related to water than at present: *“This [water distribution] was not a problem when we had one government. Different wishes make cooperation hard.”* In the Soviet Union, the different union republics might have had varying wishes. However, a centrally controlled framework made sure that water was allocated according to defined limits.

5.1.1.3 Possible solutions

If conflicts were more absent in the Soviet Union when one big mechanism was responsible for water management, is it possible that creating a new cooperation mechanism may mitigate the problematic water situation in Central Asia? A woman I spoke with, who worked as a secretary at Small Hydro Power Development (SHPD) – a company occupied with hydro power development in Tajikistan – who was very knowledgeable about the water situation in Central Asia, stated that a regional framework for water allocation should be created in order to mitigate water conflicts: *“We need norms and rules for the use of water”*, she said and added that there is indeed a framework for water allocation, but that this is not being respected. The framework she was referring to is the 1992 Almaty Agreement which sets the

²⁹ The respondent referred to the former union as “Soviet”, even though the correct notion is “the Soviet Union”. Further, in this context it is not correct to refer to today’s Central Asian states as “states”. The term should be “union republics”, as were their correct notion during the Soviet period.

quotas for how much water that is to be allocated to each state (ICG 2002: 11). These quotas were set based on population size and the amount of water that was allocated to the union republics prior to the collapse of the Soviet Union. However, the needs of the states have changed much since then and they have been disagreeing about the size of these water quotas ever since they were established.

The need for common norms and rules was also pointed out by GIZ' National Expert (IN-1) whom I spoke with on several occasions: *"The solution is one concrete mechanism than can deal with the water problems"*. In his opinion, the potential for conflict is smaller if a good framework for dealing with water-issues is established. On a later occasion he underlined the need for having a kind of mechanism at the international level to get the heads of the five countries together to properly address water issues in Central Asia. This opinion was shared by the German working for OSCE (IN-4) who said that no regional body is adequately equipped to deal with the demands of the five states in the region. If one had a functioning regional framework there would be no concern, as everyone would do what is in the interest of the region. This was also the opinion of one of the directors of the Interstate Commission for Water Coordination (ICWC) in Kyrgyzstan (IN-17), who underlined the need for a common structure for water management: *"The countries need to learn to cooperate in order to enhance the situation for the better of the whole region instead of putting national interests first"*. He added that a common framework could help mitigate tensions at state level but noted that as long as the states are unwilling to give up a certain amount of self-determination to a supranational body, it is unlikely that such a framework may be established.

5.1.1.4 Lack of suggestions

A clear tendency among the people I interviewed was that even though there are general dissatisfaction with today's water management structures, there is a lack of concrete suggestions as to how the structures may be improved. The Central Asian states' need for a common framework for dealing with water issues is a topic that was raised by many of the respondents. However, few explained what kind of a framework this could be. When I asked what kind of framework they had in mind, several of them referred to IFAS. However none of the respondents – with the exception of a specialist working for IFAS herself (IN-18) - fully supported the IFAS structure. This structure requires the Central Asian states to give up a certain amount of decision-making power to a higher body that will then allocate water according what will serve the region as a whole.

5.1.2 Causes of conflicts at the local level

Menon and Spruyt (1999) identify three main causes as to why internal instability occurs in Central Asia. The authors argue that creating a national identity, building effective political institutions and coping with the consequences of late economic development are the biggest challenges the local governments are facing (Menon and Spruyt 1999: 91). These factors form the backdrop for conflicts happening at local level within each of the Central Asian states. Wolswinkel (2009) illuminates how tensions among different population groups are caused because access to water occurs along ethnic lines. In Chapter 4 of this thesis, I pointed out how cross-border tensions have been further exacerbated by the lack of access to natural resources. This is the case in the Ferghana Valley, in the bordering area between Kyrgyzstan, Tajikistan and Uzbekistan. Here, border communities have experienced tensions for decades and in the post-Soviet period these tensions have been exacerbated by uneven distribution of water and soil resources (Dale, 2011).³⁰

5.1.2.1 Ethnic diversities fueled by inadequate access to resources

The Conflict Prevention Specialist (IN-14) from the UNDP office in Khujand explained that the most visible clashes due to water-related issues happen among water users at the local level. This has been elaborated on in a report written by his office. The report notes how earlier, conflicts between Kyrgyz and Tajik citizens happened mainly due to inadequate access to water resources (UNDP 2011b: 7). For the last couple of years however, territorial disputes have been the main contributor to conflict. The Director of “Shoto” (IN-12) elaborated on this by explaining how young people after the collapse of the Soviet Union do not share language and culture as they did earlier, and that this makes cooperation harder: *“Today people steal water from the pipe line and already existing small conflicts gets bigger because of water issues.”* Rules and regulations what water concerns are being violated. Ethnic diversities have been increasing since 1991, and inadequate access to water and other resources are fueled because of these diversities. This tendency is discussed by Gleick (1993) who explains how water shortage interacts with other conflict-triggering factors and that water thus plays a significant role in conflicts. The Director of “Sharq” (IN-12) explained that across the borders people are friends and family but political conflicts arise due to lack of resources. The same respondent noted that: *“When you mix in politics, it is hard to remain good neighbors”*.

³⁰ Telephone conversation with Ivar Dale, Advisor in The Norwegian Helsinki Committee. June 29th, 2011.

5.1.2.2 Disagreeing about conflict level

One official (IN-10) at the *OblVodkhoz* in Tajikistan, on the other hand, claimed that conflicts of this kind never get serious, because the authorities intervene at an early stage and deal with the problems. One employee of the GIZ (IN-7d) dryly commented on this rhetoric by saying that: *“People beat each other up with sticks because of disagreements about water so there is obviously some kind of conflict (...)”*. My understanding is that respondent 10 – being an official in the Tajik state apparatus - is trying to paint a brighter picture of the situation than there is reason for. By agreeing to that there are violent conflicts happening, he is admitting that Tajikistan fails to deal with problems within the state.

5.1.2.3 Corruption gives root to conflict

Corruption as an obstacle to efficient cooperation in Central Asia is an issue emphasized by several of the respondents, for instance respondents 7, 11, 12, and 14. According to people I spoke with, much of the problem is that salaries in the government sector are so low that officials at oblast and rayon level are forced to find other means of income.³¹ The Director of the Kyrgyz branch of ICWC (IN-17) on the other hand claimed that it is almost impossible to have corruption within the water sector. He stated that there are several reasons for this, the main reason being that farmers are too poor to pay the bribes. *“Basically, we don’t have this problem”*, he answered when asked whether corruption is a problem in water management. He followed up by explaining how the water management structure nevertheless makes it almost impossible to put corruption into system. Also another of the respondents worked for ICWC, this one as a Deputy in the Tajik branch (IN-8). When I asked him about corruption in water management in Central Asia, he gave elusive and fleeting answers, and tried to avoid the topic. I tried asking indirect questions, for instance about how people within the government sector are supplying their low income, but the respondent was all the time making efforts to changing the subject and it was obvious that he was feeling uncomfortable discussing corruption at all.

³¹ See van Rijckeghem and Weder (1997) and Klitgaard (1998) for more on how low wages in civil service cause corruption.

5.1.2.4 An example of corruption in water management

This position was contested by several of the respondents working for NGOs, among these respondent 11 and 14. The Conflict Prevention Specialist from the UNDP (IN-14) explained how illegal taps into water pipes are tolerated if bribes are paid to the authorities. He said that this is a problem among local actors and told me how he had recently found out what he referred to as “*an interesting way of doing water management*”. His office had been involved in a project where representatives from the local population were to guard certain control point along the Isfarinka river in order to prevent illegal tapping. As part of the project, shacks were set up by the control points for the person who guards the area. In this specific shack, the respondent laughed, the wife of the guard had turned the whole house into a *dacha*³² where she was growing vegetables.

5.1.2.5 Some admitting, others denying corruption

A British woman I spoke with who worked with local empowerment in WeltHungerHilfe (WHH) in Tajikistan (IN-11) said that she had met many farmers that complained that they had to pay bribes just to get the water they were to be provided with in the first place. These bribes were not very big, but had to be paid quite often and represented a burden on the poor farmers. My understanding is that as a representative of the Kyrgyz state, the ICWC Director presented in 5.1.2.3 did not want to admit that corruption is a problem. Another respondent, the Main Specialist in the Ministry of Agriculture and Processing Industry in Kyrgyzstan (IN-16), did however admit that there is a certain amount of corruption in water management. He did not say how the corruption happens in practice, but underlined how most public employees have such a small income that they are completely dependent on receiving extra money. Respondent 16 has a lower rank than respondent 17, something which might explain why this respondent admitted that corruption exists, while the other did not. Respondents 11, 14 and 15 especially emphasized that the oblast level officials are prone to corruption (see 5.1.2.7).

5.1.2.6 The mandate of the OblVodkhoz

OblVodkhoz is the official government supplier and maintainer of water from glaciers, rivers and canals. The *OblVodkhoz* officials are located at province level (see Chapter 3) and are

³² To a none-Russian speaker it should be explained that the word “*dacha*” refers to a summerhouse, usually equipped with a small kitchen garden.

directly subordinated to the state. Actors subordinated to the *OblVodkhoz* are the water officials at rayon level and farmers organized in WUAs. The actors at the local level do not hold a significant amount of power and when people concerned with water management in Central Asia discuss the role of the *vodkhoz* in a general matter, it is usually the role of the *OblVodkhoz* they refer to. The mandate of the *OblVodkhoz* is to monitor that water is used properly and that those who need water, get it. The *OblVodkhoz* should also secure that management and water outlet is controlled, sustain water outlets and in general provide access to water.

5.1.2.7 Corruption within the OblVodkhoz

Several of the respondents emphasized how *the OblVodkhoz* officials are to a certain extent responsible for poor water management in Central Asia. The problem, according to the GIZ Team Leader (IN-9) is that the *OblVodkhoz* officials are extremely corrupt, that the employees change often and that deals are not kept due to this. The *OblVodkhoz* officials, the respondent argued, lack interest, skills and knowledge about water resources. He continued by saying that the officials have personal interest in resolving some of the water issues for their own personal interest. This respondent described the *OblVodkhoz* in general as: “(...) *completely corrupt and very hard to cooperate with*”. In the next section I will discuss whether allocating power from oblast level to rayon level or below can help mitigate the water situation in Kyrgyzstan and Tajikistan.

5.1.2.8 Will decentralizing power reduce the impact of the OblVodkhoz?

If poor management of water is partly a result of corrupt officials at oblast level, a possible way of mitigating the problematic water situation could be to reduce the amount of power these officials hold. In Chapter 3 I discussed how the governance structures in Kyrgyzstan and Tajikistan are predominantly top-down. Power is in other words located among a few strong actors at the highest levels of governance. Allocating power from the *OblVodkhoz* to actors at the same level of governance is thus not a solution as there are no other actors at this level to whom power can be allocated. A possible solution could be to apply perspectives from inclusive management and to decentralize some of the power from oblast level to actors at lower levels of governance, i.e. to rayon level or possibly to WUAs. In Chapter 3 I accounted for how an important aspect of inclusive management is the involvement of public actors – in this specific context – in water management. The Project Coordinator from WHH (IN-11) argued that the only way for farmers to gain power to deal with the *OblVodkhoz* officials, is if a body is created consisting of farmers where all the farmers in a community came together to

discuss water management. This may be a good solution as corruption can happen because efficient control routines of local authorities are lacking. Including local authorities may thus contribute to making these actors more responsible.

5.1.2.9 The role of NGOs and WUAs

In Chapter 3 I noted that Micklin (2000) considers centralized distribution systems for water to alter corruption. A way of reducing the impact of provincial actors, e.g. actors within the *OblVodkhoz*, is to transfer water management tasks to WUAs (UNDP 2011a: 39). The intention is to join farmers together in order to make them stronger to meet the pressure from above. In Chapter 4 we saw that rayon level actors constitute the lowest level of the TWM project.

However, the Conflict Prevention Specialist from UNDP (IN-14) claimed that corruption in water management is mainly a problem among local actors. Illegal taps are tolerated as long as bribes are paid to the authorities. The authorities in this context usually represent the oblast level, i.e. the provincial level, but representatives from the rayon level are also responsible. Against this backdrop, I claim that involving local level actors in water management will not necessarily lower the level of corruption within the sector.

5.2 Measures needed for good cooperation on water management

The previous section discussed how transferring power from oblast level down to local level actors can be beneficial in terms of reducing the impact of the *OblVodkhoz*. However, just decentralizing power is useless if the actors at local level do not have the necessary competence to deal with water management. In this section I will be addressing which measures that are needed to secure local involvement in an efficient manner. The discussion will center around two of the theoretical concepts presented in Chapter 3, namely decentralization and inclusive management.

5.2.1 Knowing the local conditions

Ostrom argues how local participation is crucial for securing efficient management of natural resources and that the social capital of those actors directly concerned with the particulars of a local situation should not be underestimated (Ostrom 1994: 2). Local level actors are close to the areas of interest that concern water allocation. It is therefore likely to believe that actors at the local level are better equipped to stating the needs of this level than actors at oblast level or above. Someone critical of this position may argue that understanding own needs does not

necessarily constitute being competent in the field of water management. For this reason they may say that this way of decentralizing power leads to a lower level of competence. This view was contradicted by the GIZ Team Leader (IN-9) who argued that the actors on the ground are those who know the local conditions best and that including local actors is the only way to create stable structures for water management. The British woman (IN-11) from WHH supported the view, underlining the need of equipping local water users with more power. According to this respondent, the local farmers are those who best know the local conditions and who are thus the best to state the needs of this level.

5.2.2 Using inclusive management aspects to mitigate the water situation

Knowing which measures that should be taken in each local setting is an important aspect by local involvement in water management. However, if involving local actors is to be beneficial, measures to improve competence among the actors at this level must be taken. As seen in Chapter 3 the concept of inclusive management is referring to how public and political actors collaboratively address concerns of public interest (Feldman and Khademian 2004: 4). At the backdrop of water management in Central Asia, the concept is alluding how local actors can be included in water management issues. Inclusive management in terms of administrating water resources engages both public and political actors. If local actors are the best at stating their own needs in terms of water, then it is likely that involving more actors from the local level in water management will give a more just distribution of water. By involving elements of inclusive management in the administrative process concerning water allocating, i.e. including local actors in water management, this may give more efficient management of water.

5.2.2.1 The need of capacity building

Feldman and Khademian (2004) argue that cooperation between actors at different levels will build capacity at lower levels. The British WHH representative (IN-11) gave me an example in this regard. After having finished the field work, I contacted her via email in order to follow up on whether WUAs can be included in water management to a larger extent. Her opinion was that actors - such as WUAs - at the local level can be supported by organizations such as WHH by means of knowledge and financial support: *“But it is important that we don’t underestimate the locals (...) They know what there is to know about their own situation.”* The need of building capacity among local actors was supported by the Director from the Kyrgyz branch of ICWC (IN-17) who said that: *“It’s a problem that we don’t have technical competence where daily maintenance is needed. Competence building is needed at*

the lowest level.” The two respondents are, in other words, saying that in order to secure the successful involvement of local level actors in water management, capacity building is crucial among the actors located at this level.

UNDP’s Conflict Prevention Specialist (IN-14) stated that the countries lack the resources and knowledge needed for establishing a good system for water management. The same respondent emphasized that in Tajikistan, there is a specific lack of skills and knowledge about managing water resources in addition to corruption at all levels. The five year long civil war in the 1990s had a devastating effect on the country’s institutional structures, and capacity building is needed at all levels of governance.

Kyrgyzstan is also in need of capacity building. The Director of “Sharq” (IN-6) stated that: *“In Central Asia (...) even small and simple basin management projects cannot be done because the countries lack resources and knowledge.”* In the Soviet Union, civil actors played a marginal role and there is still a long way to go before NGOs and institutions independent from the government constitute a dominant position in society. However, the impact of civil society has grown considerably since independence (Abdusalyamova 2007: 32). According to Anderson however, the political elite only encourage capacity building of civil actors as long as it does not challenge their dominance (Anderson 2000: 90).

Donor projects in Kyrgyzstan – as in Central Asia in general – are increasingly aiming at capacity building to strengthen the role of the civil society by creating opportunities for local communities to make decisions and to take control of development intervention (Abdusalyamova 2007: 32). The TWM project is an example of a project that aims to build capacity at the local level by implementing measures aimed at strengthening civil actors, i.e. the lay water users.

5.2.2.2 Donor projects

Today there are several donor projects that aim at capacity building among both regional and local actors as was argued by the GIZ Team Leader (IN-9). However, he continued, donor-money has a short-term effect and long-term measures must be taken in order to create a stable structure what water management is concerned: *“The best we can do is to teach the local offices how to work more efficiently. We need to teach people to create own projects and to do follow-ups on projects started by international organizations.”*

Micklin (2000) argues that the donor community can promote corruption, as far as donor money are being funneled through actors that actually generates corruption in the first place. An example of how corruption in water management takes place in practice was given in 5.1.2.4. People from the local level, e.g. farmers, in need of water, pay bribes to the right authorities for being allowed access to a water pipe for illegally tapping water. In Central Asia, corruption often happens this way: people located at the low end of the power structures receive the bribes. The money are then moved up the system, sometimes ending at the very top end of the power structure (ICG 2001).

If donor money are used to support these mechanisms, money from donor projects are indeed fueling corruption (Tangri and Mwenda 2006: 102). Bichsel (2011) also emphasizes how aid often has unintended consequences and supports the processes of authoritarian state-building. The practice of giving and receiving money under the table is nevertheless wide-spread in Central Asia and infiltrates society in an all-encompassing way it may be hard to grasp the full scale of (Gray *et al.* 2004: 20). It is therefore too easy to say that donors not should support these mechanisms responsible for corruption, because corruption takes place in almost all sectors of governance. Donors can, however, pay the utmost attention to how they fund different actors, and can work for awareness-raising and voicing a zero-tolerance what corruption concerns.

5.2.3 Cooperation likely to be conflict mitigating

Another aspect by involving local actors in an inclusive management manner is that cooperation may in itself have a stabilizing effect. Feldman and Khademian (2004) argue that the use of inclusive management techniques helps develop knowledge about how to work together and may create political capital in the form of public support for projects. Cooperation, the authors argue, is likely to be stronger when the public has participated during the development of a project. If local actors are given a better opportunity to cooperate with other local actors – for instance if Kyrgyz farmers and Tajik farmers can cooperate on water issues - this may have a stabilizing and mitigating effect per se. The role of international actors such as the GIZ should not be underestimated in this context, as they in many ways contribute to bring together local and central actors when implementing projects. Further, cooperation projects are more likely to be successful when they do not demand large sums of money from the local actors that participate in the project. When international actors such as

the GIZ are involved in a project they often generate money and local actors are thus not given an economic burden.

5.2.3.1 Creating knowledge

One may argue that bringing actors from different levels together and forcing them to address water issues is not in itself sufficient for securing efficient cooperation and that the different actors will have problems adapting to each other's needs and wishes. All actors involved in water management are nevertheless better off knowing how much water that actually is to be distributed. The actual size of the water quotas is something all current actors not always are aware of. When all the involved actors know how much water that is to be allocated it is harder to blame others for taking more water than they are entitled to. As was emphasized among several of the respondents who contributed with data to this thesis, cooperation will give all actors involved a better understanding of which measures that are needed to implement at each level. Central actors are thus likely to relate to the needs of local water users, and local actors will easier understand the reasons to why water is allocated as it is. Knowledge about the water situation may be enhanced in the meeting between different actors, as the different actors will have specific knowledge they can share with other involved actors.

5.2.3.2 Need of solid cooperation structures

Someone critical of involving local actors in water management may say that by letting more people have a say, it will be harder to reach consensus and to implement measures. The process of deciding about water distribution is likely to take more time and the chances of satisfying all the involved actors will be slim. When I spoke with the Director from SHPD (IN-2), he contradicted this view, saying that there are anyway many actors involved in the bureaucratic structure concerning water. GIZ' Team Leader (IN-9) argued that as long as the framework for cooperation is solid enough, it should not be problematic to involve more actors in water management. The respondent followed up by saying that the signing of the TWM agreement went almost surprisingly smoothly, and that this proves that involving actors the way they do not necessarily constitute a problem.

Solid structures for cooperation will be necessary to secure that adequate measures are taken quickly enough in case of drought or other unforeseen events. In order to include several actors from the local level in water management it will be necessary to reorganize today's

framework to a certain degree. Involving local actors should not pose too big challenges though, as long as the structures for including these actors are solid enough.

5.3 The TWM project's implications for local level involvement

5.3.1 Local participation in the framework

As I explained in Chapter 4, the TWM project seeks to involve actors from the local level in managing the water resources in the Isfara and Khodzha-Bakirgan river basins. In practice, this means that representatives from the Kyrgyz *RayVodkhoz* of Batken and Laylac, and the Tajik Isfara and Kanibadam *RayVodkhoz* form *the Basin Committee* (subordinated to *the Joint Water Commission*) which is in charge of implementing the measures determined by *the Joint Water Commission* through the latter's executive body, *the Secretariat*. As explained in Chapter 3, rayon level officials are responsible for issues at district level, thus representing a relatively local level of governance. As seen in Chapter 4 the local population has frequently been consulted during the project even though they not are a part of the project per se.

5.3.2 Creating a small-scale framework

In 5.1.1.2 I discussed how the Central Asian states hesitate to create a common framework for water management. Several of the respondents argued that a framework for water management similar to the one that existed in the Soviet Union, i.e. a framework including the five Central Asian states where decisions are taken at a high level of governance, could possibly mitigate the current water situation. The TWA agreement is indeed only bilateral, but the concepts of making a framework for water cooperation remain the same. The agreement is establishing rules and regulations for the use of water. In 5.3.3 I will discuss how this small-scale framework is creating a common goal, thus giving the participating parties a wider focus than only serving the needs and wishes of their own states.

5.3.3 Creating a common goal

In Chapter 3 I discussed how a realist like Mearsheimer would argue that the states will do what is in their interest rather than considering the needs and wishes of other states (see 3.2.1). One may claim that working together like the participating parties in the TWM project does not necessarily mean that the states get less concerned with own needs and wishes. However, based on the discussion in 5.2.3 on how perspectives within inclusive management can be applied in order to create political capital in form of public support and that cooperation is likely to be stronger when the public has participated in the development, I

hold that even if Kyrgyz and Tajik actors are still likely to act according to what serves their state, the actors are more likely to take into consideration the needs of the other state.

5.3.4 Small-scale involvement of local actors

Working closely together in the different bodies established by the TWM project, i.e. *the Joint Water Commission, the Basin Committee and the Secretariat*, makes the different actors aware of the problems among other local water users. The actors from the *RayVodkhoz* are familiar with the local water situation in their respective rayons, and are forwarding the needs of the local water users to the other members of the cooperation. The TWM project is thus succeeding in including local actors in water management and mitigating the water situation. This is indeed done in a small scale but the project stands out as an example for others dealing with water management – both in Central Asia and in other parts of the world – and may help mitigating the water situation also elsewhere.

5.3.5 What could be done differently?

In 5.1.2.8 I discussed whether decentralizing power may be a useful way of reducing the impact of the oblast level, thus implying that corruption within water management also may be reduced. In the TWM agreement, officials from the rayon level are included in the cooperation. The rayon officials represent a lower level of governance than the oblast level, and the power of the latter is thus to some extent challenged. But even though the rayon level constitutes a lower level of governance than the oblast level it would still be possible to include actors at even lower levels, such as the WUAs. The WUAs consist of local water users and they are thus the ones best placed to articulate the needs of the local level. Including actors from lower levels does not necessarily – as seen in 5.2.2.2 – help mitigating the water situation by lowering the level of corruption. However, including more actors from several levels of governance is likely to establish trust between the involved parties, eventually generating trust between the states at national level.

5.3.6 Further involvement of local actors

Even though the rayon level constitutes a lower level of governance than the oblast level it would still be possible to include actors at even lower levels, such as the WUAs. Local farmers are indeed being consulted by the different actors but could possibly have been included to a larger extent. A possible scenario is that farmers joined together in WUAs could control the utilization of water resources and make people aware of the importance of not exceeding the agreed water quotas. They could possibly join together the local population in

neighboring villages in order to discuss water related issues. By joining together representatives from this level, the farmers will have a stronger role in the meeting with local authorities and other relevant state organs. NGOs will possibly assist the WUAs and contribute to strengthen the local level.

5.3.7 Can local cooperation facilitate international cooperation?

The previous section illuminated how cooperation between states, i.e. Kyrgyzstan and Tajikistan, collaborating on international, oblast and rayon level, has proved beneficial in dealing with water management at the local level. An interesting side-effect by cooperating for benefits at this level is that building trust at the bottom of the system of governance may facilitate cooperation higher up in the power structures, even at the international level. This point was illuminated by GIZ Team Leader (IN-9), who said that local cooperation will not replace cooperation at an international level but rather make the countries more open for collaboration at this level.

Based on the discussion in 5.3.3 about how cooperation between states at local level makes it easier for the participating parties to relate to each other's needs, I hold that cooperating about local issues at the lower levels of governance will facilitate cooperation at higher levels of governance as well. When the parties learn to cooperate at local level they learn to cooperate about issues at a higher level of governance as well. Further, the forum that initiatives such as the TWM project represent, functions as a platform where different stakeholders can meet and get to know each other. When the actors meet in official and unofficial settings, they develop contact and friendship that is likely to facilitate cooperation also in other settings.

5.4 Conclusion

This chapter has addressed how conflicts at international and local level are linked to water issues in Central Asia. The states' lack of mutual trust and the inadequate framework for dealing with water management are decisive for how water issues are being dealt with. Perspectives within inclusive management may be applied in order to secure the necessary capacity building among local level actors. By increasing the capacity among these actors and involving them in water management to a larger degree, one is building more trust between all actors involved in water management. This is likely to make cooperation more effective, not only regarding the local level but at higher levels of governance as well. By involving local actors in water management, the water situation in Central Asia may thus be mitigated.

Chapter 6 Conclusion

This thesis started with stating the need of a better regime for water management in Central Asia. The first chapter accounted for how the pressure on water resources in Central Asia is considerable and grows stronger due to population growth and global warming. The chapter stated the need for a better framework for cooperating on water distribution and suggested that including actors from the local level could help establish such a framework. Perspectives within the center-periphery theory provided a beneficial approach for analyzing how local actors may be included in water management with an aim to mitigate the problematic water situation in Central Asia.

The overall research question of the thesis has been as follows:

“Can increased involvement of local level actors mitigate the problematic water situation in Central Asia?”

To answer this question I applied three working hypotheses (H1, H2 and H3). This chapter seeks to answer these hypotheses.

6.1 Addressing H1

Many water users feel that they do not get the amount of water they need. Inadequate access to resources is fueling local tensions and contributing to exacerbating already existing conflicts among local actors. Enhancing the water situation is therefore likely to have a mitigating effect on local relations.

Water-related tensions were few in the Soviet Union as water was allocated according to defined limits. Given that conflicts were less common when one unitary mechanism was responsible for water management in Central Asia during the Soviet period than it has been after the collapse of the Soviet Union, could the creation of alternative mechanisms for managing water in this region help mitigate the problematic water situation?

In 5.1.1.3 I argued that it is a widespread conception that a better framework for water management would improve the water situation. For the last decades, the Central Asian states have to a large extent been prioritizing their own wishes rather than the overall needs of the region. The lack of efficient cooperation on water resources is among the key causes to water-related tensions in this region. If a framework could help distributing water in a holistic

manner according to what would serve the region as such rather than each state, this could help secure stable access to water for water users all over Central Asia. However, as none of the states are expressing a will to hand over sovereignty to a supranational body, small-scale frameworks may be a better solution than the all-encompassing framework that existed during the Soviet period and a remnant of which continues to exist at present. Small-scale frameworks like the one offered by the TWM project does indeed require the states to give up a certain amount of decision-making power, but to a lesser extent than what was done during the Soviet period.

In any case, cooperation is the key issue with regard to any framework for water allocation. The thesis has illuminated how cooperation is likely to be stronger if there is public participation during the development of a project. When local actors are given a better opportunity to cooperate on water issues this appears to have a stabilizing effect per se. Cooperation at the local level is likely to build trust between actors located at different levels of governance. Such trust not only facilitates cooperation at the local level: as the actors by cooperating on local matters not only develop a network but also learn about each other's conditions, they will more easily relate to the needs and wishes of the other actors. Cooperation in other forums may thereby also be facilitated. My findings thus suggesting that measures to strengthen cooperation in the area of water management is likely to have a positive effect on the water situation in Central Asia as such, thus facilitating a reduction in tensions related to water.

6.2 Addressing H2

Local actors are more familiar with the local water situation than actors at the national level. Increased involvement of local level actors is thus likely to give a more just allocation of water to local water users.

One of the main benefits by local involvement in water management is that increased cooperation will give all the involved actors a better understanding of which measures that are necessary at each administrative level. In 5.2.1 I argued that local participation is crucial to secure efficient management of natural resources and that the competence of the actors directly concerned should not be underestimated. It is likely that actors at the local level are better equipped to state the needs of this level than actors at oblast level or above. Against this

backdrop, I argue that creating stable structures for water management requires involvement of local actors.

One possible way of including local actors could be to apply perspectives from inclusive management and to decentralize some of the power from oblast level to actors at lower levels of governance, i.e. to rayon level or to the WUAs. Because this is likely to decrease the amount of power held by the *OblVodkhoz* this might also reduce the level of corruption at this level. However, corruption is a problem also among local actors as illegal taps are tolerated as long as bribes are paid to the right authorities. The thesis thus contests the view that increased involvement of local level actors is likely to give a more just allocation of water. As long as corruption in water management takes place also among local actors, increasing the involvement of actors from this level will not automatically result in more just water allocation. However, if the corruption at local level happens due to inefficient control routines, including actors from this level in water management may contribute to making them more responsible, something which will have a positive outcome with regards to water management. What constitute just water allocation does however depend on the eyes of the beholder and what some considers a just distribution of water, might appear unrighteous to others.

6.3 Addressing H3

Projects involving local level actors positively affect water allocation and offer a new way of dealing with water management in Central Asia.

The TWM project is creating a small-scale framework for cooperation about water management, thus creating a common goal that gives the participating parties a wider focus than the needs and wishes of their own states. The TWM project is linking together actors from different levels of governance, and is thus successful in including local actors in water management. This is indeed done on a small scale, but against the backdrop of how my findings (see H1) suggest that measures to strengthen cooperation on water management is likely to have a positive effect on the water situation, I hold that the TWM project will affect water distribution in a positive manner. However, it is not possible to answer this hypothesis based on my empirical data. My findings do nevertheless support the hypothesis to a certain extent, although it is too early to draw a conclusion concerning the project's full extent.

6.4 Summarizing the findings

My findings suggest that measures to strengthen cooperation on water management are likely to have a positive impact on the water situation, thus contributing to reducing tensions related to water. However, the thesis contests the view that increased involvement of local level actors will necessarily result in a more just allocation of water: as long as corruption in water management takes place also among local actors, increasing the involvement of actors from this level will not necessarily give more just water allocation. My findings further conclude that the TWM project is succeeding in creating a common goal for the parties involved in the project by creating a framework for water management. This is indeed done in a small scale, but on the basis of how my findings (see H1) suggest that efforts made to enhance cooperation on water management is likely to positively affect the water situation, I argue that the TWM project does have positive influence on the water situation.

6.5 Further research

This thesis suggests that local level actor involvement indeed may contribute to mitigating the problematic water situation in Central Asia. Further research on local involvement in water management in Central Asia can – as implied in 5.3.6 – investigate the possibility of involving actors at even lower levels of governance than what has been done so far. The TWM project suggests that involving actors from rayon level positively affects the water situation. A study following up on this perspective may investigate the benefits of including actors from even lower levels of governance, such as the WUAs or NGOs.

Another perspective further research can investigate is how local cooperation also can have regional and international benefits. My research has shown that by cooperating for benefits at the local level trust is built between actors at multiple levels in the system of governance. Because the actors by cooperating about local issues develop a network and start relating to each other's needs, cooperation higher up in the power structures may be facilitated.

List of respondents

Interview number	Date	Position	Location	Language
1	August 1, 2011*	National Water Expert, GIZ	Dushanbe, Tajikistan	Russian
2	August 2, 2011	Director, SHPD	Dushanbe, Tajikistan	English
3	August 2, 2011	Secretary, SHPD	Dushanbe, Tajikistan	Russian
4	August 4, 2011	Water Management Advisor, OSCE	Dushanbe, Tajikistan	English
5	August 4, 2011*	Employee, OSCE	Dushanbe, Tajikistan	English
6	August 5, 2011	Director of «Sharq» (NGO)	Dushanbe, Tajikistan	Russian
7 (a b c d)	August 8, 2011	4 employees from the GIZ: Team Leader (IN-9, here IN-7a), National Water Expert (IN-1, here IN-7b), Programme Director (IN-7c) and Regional Consultant (IN-7d)	Khujand, Tajikistan	English
8	August 8, 2011	Deputy, ICWC, Tajik branch	Khujand, Tajikistan	Russian
9	August 9, 2011*	Team Leader, GIZ	Khujand, Tajikistan	English
10	August 9, 2011	Deputy Chief of the Sugdh Oblast Vodkhoz	Khujand, Tajikistan	Russian
11	August 14, 2011*	Project Coordinator, WHH (NGO)	Khujand, Tajikistan	English
12	August 10, 2011	Director of «Shoto» (NGO)	Isfara, Tajikistan	Russian
13	August 10, 2011	Director of «Za mezhdunarodnoe soglasie i razvitie»(NGO)	Shurab, Tajikistan	Russian
14	August 15, 2011*	Conflict Prevention Specialist, UNDP	Khujand, Tajikistan	English
15	August 19, 2011*	Project Coordinator, Biom	Bishkek, Kyrgyzstan	Russian
16	August 22, 2011	Main Specialist, Ministry of Agriculture and Water Economy and Processing Industry	Bishkek, Kyrgyzstan	Russian
17	August 23, 2011*	Director of Scientific and Research Center of the ICWC, Kyrgyz branch	Bishkek, Kyrgyzstan	Russian
18	August 26, 2011	Specialist, IFAS	Almaty, Kazakhstan	English

*Respondents contacted via email for data supplement after the fieldwork was over.

Appendix 2a – Kyrgyzstan ³³

Actors in water management in Kyrgyzstan. Translation from English to Russian.

English	Russian ³⁴
Department of Water Management	Департамент водного хозяйства
Province Water Administration (<i>OblVodkhoz</i>)	Областное управление водного хозяйства и мелиорации
District Water Administration (<i>RayVodkhoz</i>)	Районное управление водного хозяйства и мелиорации
Water Users' Associations (WUAs)	Ассоциации водопользователей (АВП)
Kyrgyzenergo	Кыргызэнерго
President and Presidential administration	Президент и Президентская администрация
Parliament	Парламент
Academic institutions	Академические институты
International donor organizations. ADB, GIZ, OSCE, UN, USAID, etc.	Международные организации-доноры. АДВ (Азиатский банк развития), GIZ (Немецкое общество по международному сотрудничеству), ОБСЕ, ООН, USAID (Агентство США по международному развитию) и др.
NGOs	НПО
Local Governments (<i>aiyl okmotu</i>)	Органы местного самоуправления (<i>айыл окмоту</i>)

³³ Based on 3.4.1 – 3.4.2.

³⁴ This overview only provides a translation from English to Russian, even though the official languages in Kyrgyzstan are both Kyrgyz and Russian. Russian has been the dominating language in the state administration since the Soviet Union. Measures are taken to increase the use of Russian in the state administration. However, Russian still plays a dominant position.

Appendix 2b – Tajikistan³⁵

Actors in water management in Tajikistan. Translation from English to Russian.

English	Russian ³⁶
The Ministry of Land Reclamation and Water Resources	Министерство мелиорации и водных ресурсов
Province Water Administration (<i>ObVodkhoz</i>)	Областное управление водного хозяйства и мелиорации
District Water Administration (<i>RayVodkhoz</i>)	Районное управление водного хозяйства и мелиорации
Water Users' Associations (WUAs)	Ассоциации водопользователей (АВП)
Barki Tojik	Барки Точик
President and Presidential administration	Президент и Президентская администрация
Parliament	Парламент
Academic institutions	Академические институции
International donor organizations. ADB, GIZ, OSCE, UN, USAID, etc.	Международные организации-доноры. ADB (Азиатский банк развития), GIZ (Немецкое общество по международному сотрудничеству), ОБСЕ, ООН, USAID (Агентство США по международному развитию) и др.
NGOs	НПО
Local Governments (<i>mahalla</i>)	Органы местного самоуправления (Махалля)

³⁵ Based on 3.4.1 – 3.4.3.

³⁶ This overview only provides a translation from English to Russian, even though the official languages in Kyrgyzstan are both Kyrgyz and Russian. Russian has been the dominating language in the state administration since the Soviet Union but measures are taken to increase the use of Russian in the state administration. However, Russian still plays a dominant position.

Appendix 3 – Transcription of Cyrillic³⁷

Russian Cyrillic	Latin
Ё	E
Ж	ZH
Й	I
Х	KH
Ц	TS
Ч	CH
Ш	SH
Щ	SHCH
Ы	Y
Э	E
Ю	IU
Я	IA

³⁷ Source: University of Cambridge, Cambridge University Library: “Transcription of Cyrillic”.

Appendix 4 – List of illustrations

- Front page: Photography, Turid Austin Wæhler.

- Page 4: *Map of Central Asia*. Source: United Nations, Department of Public Information (1998).
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- Page 34: *Institutional map. Actors in water management in Kyrgyzstan and Tajikistan*. Source: Own material, GIZ, Sehring (2009).

- Page 46: *Map of Batken and Sugdh*. Source: UNEP, GRID-Arendal.
<<http://www.grida.no/graphicslib/Search?p=3&q=central%20asia>> [Last visited 29.05.2012].

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