

# Troubled water



The Soviet legacy of water management in Kyrgyzstan  
and Uzbekistan  
-an institutional perspective-

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## Chapter 1: Introduction

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This thesis examines the Soviet legacy of regional water management in Kyrgyzstan and Uzbekistan. Located in Central Asia between the Caspian Sea and China, the Soviet republics of Kyrgyzstan and Uzbekistan became independent states with the dissolution of the Soviet Union in 1991. With no real history as independent nations and after seventy years of socialism and planned economy, independence came as something of a shock to these countries. In the junction of past Soviet practices and post-Soviet nation building, regional water management has proven particularly challenging.

Throughout the Soviet era the Central Asian region had become integrated physically, administratively and economically through complex systems of resource sharing. The water-rich upstream republic of Kyrgyzstan served the arid downstream republic of Uzbekistan with water for an extensive cotton industry. In return Kyrgyzstan was supplied with energy from the gas reservoirs of Uzbekistan. The system of resource sharing as a whole was tightly regulated and subsidised by Soviet ministries located in Moscow.

With independence the Central Asian states inherited this complex system of resource exchange, no longer with an authority to guide it, nor the financial resources to maintain it. The previous Soviet economic structures soon proved incompatible with the new geo-political context. The legacy of Soviet water management has nevertheless continued to prevail in the regional water institutions since independence. This has led to highly inefficient schemes for resource sharing as well as political tensions between the upstream and downstream states.

The object of this thesis is to study why there has been a continuity of Soviet water institutions in Kyrgyzstan and Uzbekistan, despite that these repeatedly have proven highly inefficient in a post-Soviet setting. To examine this I will use the theoretical school known as new institutionalism. I will discuss whether the theories within this school can elucidate possible reasons behind the enduring force of the Soviet legacy in regional water management. Moreover, I will study the institutional continuity in the light of the post-Soviet transition strategies that Kyrgyzstan and Uzbekistan have embarked upon. By doing this I want to link regional water management to the backdrop of a transitional context. I will examine how the divergent transition trajectories of Kyrgyzstan and Uzbekistan have affected regional water management.

### ***Why Kyrgyzstan and Uzbekistan?***

Regional water management in Central Asia is not just an issue between Kyrgyzstan and Uzbekistan. It is also an area of concern including Tajikistan, Turkmenistan, Kazakhstan and Afghanistan. However, I have chosen Kyrgyzstan and Uzbekistan as the focal area of this study based on a set of geographical, economic and political considerations. First, Kyrgyzstan and Uzbekistan represent an upstream, water rich country and a downstream water poor country, respectively. The transboundary river of Syr Darya, starting in Kyrgyzstan and flowing into Uzbekistan, is therefore at the heart of the issue. Second, Kyrgyzstan and Uzbekistan represent two divergent pathways of transition towards market economies. This provides an opportunity for comparative contemplations of the economic and political trajectories of the countries and how they have affected the institutional framework for water management. However, I will note that this thesis is first and foremost a study of regional water management, meaning an integrated social phenomenon, where Uzbekistan and Kyrgyzstan must be seen as a single unit of study. Hence, the thesis does not offer a comparative analysis *per se*.

### ***Scope of thesis***

The complexity of the water management context of Central Asia calls for a holistic approach. To study water management as an isolated object would fail to see the very nature of the problem of water management i.e. the integration with other economic sectors. Although the main focus of the thesis is water management, I will therefore find it necessary and relevant to discuss related spheres, such as agriculture, as to provide a broader understanding of the water management problem as a whole. Moreover, the economic and political transition context in which Central Asian water management takes place, will be discussed closely. The thesis does not, however, aim to evaluate which reform paths have been the most successful in terms of economic and political performance. It will rather discuss how these reform paths have affected regional water management of Kyrgyzstan and Uzbekistan. Given the geographical, political and historical complexity of the area, in particular in the water management sector, it will occasionally be necessary to comment on the situations in neighbouring Tajikistan, Kazakhstan and to a lesser degree Turkmenistan and Afghanistan.

The thesis does not aim to go into the details of particular water management institutions. In line with the theories of new institutionalism, the thesis rather seeks to examine how institutional outcomes are shaped. What are the mechanisms through which



institutions shape action? Are the water management institutions in Central Asia shaped by underlying forces or are they outcomes of strategic interaction based on preferences? Posing such questions inevitably brings up the debate on structure and agency. The thesis will discuss how the dual relation of structure and agency form institutional outcomes in the regional water management system of Kyrgyzstan and Uzbekistan. The thesis adheres to the structuration theory within modern social science and thus seeks to go beyond the structure-agency dichotomy as to elucidate mechanisms of institutional change and continuity.

### ***Related literature***

The supposition that a Soviet legacy is prevalent in the post-Soviet context of Central Asia, stems from a range of previous empirical studies in the area. Luong (2002) has used theories within new institutionalism to study institutional continuity in Central Asian electoral procedures. Mearns (1996:25) has studied how socialism has influenced post-Soviet societies, causing what he describes as “an erosion of social capital”. Directly related to water management has been the study of Thurman (2001), concluding that there is a general need for reforms as to achieve effective water management. Micklin (2000:61) has also studied the water management situation in Central Asia and suggests that it still “reflects its Soviet origin”. Weinthal (2002) has studied the efforts of the Central Asian states to cope with the Aral Sea crisis, concluding that the post-Soviet region has been characterised by an institutional inertia.

The very challenge of this thesis will therefore be to relate my own research material and secondary data on water management, to theories of new institutionalism. Moreover, the thesis will seek to join the extensive literature of transition theory and strategy to the empirical analysis which will be carried out in the thesis.

### ***Research question:***

Based on the above I have developed the following research question forming the object of the thesis:

*Q. How does the Soviet legacy continue to affect the institutional framework for regional water management in Kyrgyzstan and Uzbekistan?*

I argue that a comprehension of the transitional policies in Kyrgyzstan and Uzbekistan is essential in order to grasp the context of the Soviet legacies. Related to the above question I have therefore developed a complementary research question:

*Q. How have the transition approaches in Kyrgyzstan and Uzbekistan, respectively, affected the institutional framework for regional water management?*

### ***Outline of thesis***

In order to understand the complexity of the water situation in Central Asia, knowledge of the geographical and historical context of the area is essential. Hence, in **chapter 2** I begin with a brief introduction to the geographical context of Kyrgyzstan and Uzbekistan. The chapter continues with a historical background of the region, starting from the end of the 19<sup>th</sup> century up until today. **Chapter 3** introduces the theoretical framework of the thesis. The chapter starts with an introduction to the concept “institution”. This concept has in the past decades paved its way into theories of social science and I will present some common interpretations. The chapter goes on to a briefing of the debate on structure and agency. I continue with an introduction to the theoretical school of new institutionalism. I will give a presentation of three approaches within this school: historical institutionalism, rational choice institutionalism and sociological institutionalism. These theories will be discussed with particular attention to their perspectives on institutional change and continuity. I will also relate the approaches to the debate on structure and agency. **Chapter 4** presents the methodological approach of the thesis. I will give an account of the methods used for the collection of data and the considerations behind the choice of methodology. **Chapter 5** discusses the debate of economic and political transition evolving after the collapse of the Soviet Union. There are two main opposing sides in this debate: the radical reformers and the gradual reformers. In the first part of the chapter I will present each side of the debate,

focusing primarily on their views concerning institutions. In the second part of the chapter I go on to look at how these reform approaches have been prevalent in Kyrgyzstan and Uzbekistan respectively. This chapter will serve as the backbone for discussing the complementary research question in chapter 7. **Chapter 6** is concerned with the main question of the thesis. By using empirical data I discuss how the Soviet legacy has affected the regional water management system in Kyrgyzstan and Uzbekistan in post-Soviet time. By using the theories of new institutionalism, this chapter examines how Central Asian water management in large has been object to institutional continuity. The chapter is divided in three, discussing the integrated legacy, the legacy of an irrigation regime and the legacy of culture, respectively. I close each section of the chapter by revisiting the debate on structure and agency. **Chapter 7** is concerned with the complementary research question of the thesis. The chapter picks up on the post-Soviet debate presented in chapter 5. Here I discuss how the legacies identified in chapter 6 must be seen in relation to the post-Soviet transitional approaches carried out in Kyrgyzstan and Uzbekistan. I close the chapter by discussing how the transitional reforms carried out in the two countries, have affected the institutional framework for regional water management in post-Soviet time. **Chapter 8** provides the conclusion where I will answer the main research question and the complementary research question based on the previous analysis. I will close with some reflections caused and produced by the work with the thesis.

## Chapter 2: Background

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### Geography

Kyrgyzstan and Uzbekistan are situated in the region commonly referred to as Central Asia<sup>1</sup> together with Kazakhstan, Tajikistan and Turkmenistan. The region was part of the Soviet Union until the dissolution in 1991. Kyrgyzstan and Tajikistan, the upstream countries, are mountainous countries rich in water but poor in other natural resources. In the downstream countries, Kazakhstan, Uzbekistan and Turkmenistan, the opposite is the case. The latter are all self-sufficient with energy resources. Kazakhstan and Turkmenistan possess vast deposits of oil and coal while Uzbekistan has enough gas to cover both its own needs and additional export to neighbouring countries (World Bank 2004). The uneven distribution of natural resources is a key element for the comprehension of water management in Central Asia.



Map 1: Uzbekistan<sup>2</sup>

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<sup>1</sup> Afghanistan and Pakistan are occasionally also included in the term “Central Asia” while Kazakhstan from time to time is left out. Central Asia will in this thesis be defined as the five previous Soviet republics of Kyrgyzstan, Uzbekistan, Tajikistan, Kazakhstan and Turkmenistan.

<sup>2</sup> [www.cia.gov/cia/publications/factbook/geos/uz.html](http://www.cia.gov/cia/publications/factbook/geos/uz.html)



Map 2: Kyrgyzstan<sup>3</sup>

Kyrgyzstan and Uzbekistan are part of the region constituting the Aral Sea basin. The basin has an area of 2.2 million square kilometres and a population of 35 million in Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan and South Kazakhstan. The key water resources of the basin are the two major rivers of Syr Darya and Amu Darya, both flowing towards the Aral Sea. Amu Darya originates in the Pamir Mountains and continues through Tajikistan, Afghanistan, Turkmenistan and Uzbekistan. Syr Darya is formed by the confluence of two major tributaries, Naryn and Karadyrya, both originating in Kyrgyzstan. Syr Darya passes through Tajikistan, Uzbekistan and South Kazakhstan. The tributary Naryn has multipurpose reservoirs with hydroelectric generators in upstream Kyrgyzstan, while Karadyrya and Syr Darya have extensive irrigation infrastructure in the downstream countries of Uzbekistan and South Kazakhstan diverting water for irrigation. Kyrgyzstan uses 20% of the water resources on its territory while the rest is distributed to the downstream countries (Micklin 2000).

Agricultural production is the dominant source of income in both Uzbekistan and Kyrgyzstan. By 1999 agriculture contributed to 33% of GDP in Uzbekistan and 38 % in Kyrgyzstan. Cotton is the heart of the economy in Central Asia and is the third largest producer of this product in the world. Cotton accounts for nearly 40% of the exports from the Central Asian region as a whole (World Bank 2004). In the desert like areas of Central Asia, large scale cultivation of crops such as cotton, is only possible through extensive irrigation.

<sup>3</sup> [www.cia.gov/cia/publications/factbook/geos/kg.html](http://www.cia.gov/cia/publications/factbook/geos/kg.html)

## ***History***

### ***Prior to the Soviet Union***

Between the 1860s towards the end of the 20<sup>th</sup> century the Russian empire brought parts of Central Asia under control, mainly through conquest. The region, then known as Russian Turkestan, was dominated by nomadic settlement in today's Kyrgyzstan and Kazakhstan and sedentary traders and farmers in the ancient cities and regions along the Silk Road (Kappeler 2001).

Cotton had been a part of the traditional agriculture in Central Asia long before the Russians arrived. Russia's desire to be self-sufficient of this product, however, led to the expansion of cotton cultivation towards the end of the 19<sup>th</sup> century. Nevertheless, the farmers largely preserved their traditional patterns of cultivation (Weinthal 2002). The traditional system of irrigated agriculture was adjusted to the environmental constraints of the arid region. The arid environment demanded strong incentives for farmers to cooperate in maintaining the irrigation systems, as well as using both land and water resources carefully. Moving closer to the 20<sup>th</sup> century, cotton cultivation increasingly replaced other previously grown crops. This was paralleled by a major expansion of irrigation systems. Initially this construction of irrigation systems focused on developing new systems within the bounds of the traditional areas of Tashkent, Bukhara, Korezm and the valleys of Ferghana and Zeravshan. However, it also started to expand to desert areas not previously irrigated, mainly in Uzbekistan (Micklin 2000).

### ***Soviet rule***

With the Russian revolution in 1917, Russian Turkestan initially became the Autonomous Republic of Turkestan. It was later abolished and replaced by new national units, of which Uzbekistan and Turkmenistan received the status as Soviet republics in 1924. During the 1920s the Bolshevik authorities rearranged the borders several times. In 1936 they settled for the borders, constituting the five Central Asian republics as they exist today (Kappeler 2001).

As in other parts of the Soviet Union, the process of massive agricultural collectivisation started in 1929. Soviet authorities forced individual farmers to combine into *kolkhozy* (collective farms), while *sovkhozy* (state farms) were set up on newly irrigated land. Farmers' use of distinct, separate portions of the land was abolished and people were organised into teams, or brigades, working collectively on the land (Kappeler 2001).

While irrigation had been practised for over 2000 years in the river basin, it was first during Soviet rule that water was diverted from the rivers on a larger scale. To enable agricultural cultivation, water was allocated through an extensive irrigation infrastructure, comprising storage dams, canals, distributaries and pumping stations. Irrigated agriculture was converted into a completely state controlled enterprise and set the stage for subsequent developments in irrigation for the rest of the Soviet period. By the 1960s the diversion of water from the Syr Darya for irrigation purpose, was reaching such levels that in dry years the irrigation needs were greater than the total flow in the river (Micklin 2000).

To avoid shortage of water, large construction of multi-year storage reservoirs were built in Kyrgyzstan on the Naryn River. The purpose of such reservoirs, was to store water in wet years that could be released downstream in dry years and facilitate the irrigated cultivation. One such reservoir built, was the Toktogul reservoir. Toktogul was the largest in the region and the only reservoir with substantial storage capacity. It controlled the release of water to the lower reservoirs along the Naryn River. Several reservoirs, including that of Toktogul, were also provided with hydroelectric generators which could be used for electricity production when water was released (Weinthal 2002). To use the dams and reservoirs for agricultural purpose, water had to be stored in the reservoirs in winter time only to be released in spring and summer to meet the irrigation needs. The energy production was hence limited to the summer season and has been estimated to cover a merely 10 % of its actual potential (Wegerich 2004).

Irrigation in Central Asia was controlled by a highly centralised and hierarchical system. All major decisions were made by the Ministry for Land Reclamation and Water, *Minvodkhoz*, in Moscow. The decisions were then supposed to filter through to the republican affiliates. The Central Asian region was managed through complex systems of resource sharing regulated from Moscow through a bartering system. The barter institution formed the very backbone of the resource sharing in the Soviet Central Asia. Water from the upstream republics was diverted for irrigation to the downstream republics. In exchange the upstream republics received fossil fuels for energy by the downstream republics. Consequently the upstream and downstream republics became geographically, economically and politically integrated (Micklin 2000).

The extensive water usage had its price. The extraction of water for irrigation from the Syr Darya and Amu Darya severely diminished the inflow to the Aral Sea. As a result the Aral Sea decreased to merely half its size in the period from 1960-1990. In the 1980s Soviet engineers launched a plan to solve the increasing water problems in Central Asia. The plan

was to reroute two major Siberian rivers so that these could divert water to the Central Asia region. However, the plan was halted due to fierce opposition from scientists and environmentalists (ICG 2002).

### *Independence*

The republics of Central Asia became independent states with the dissolution of the Soviet Union in 1991. There had been little domestic pressure for independence in the Central Asian region and the new status as nation states came rather surprisingly to the republics (Tishkov 1997). Although sovereign countries, they continued to be closely woven together. However, the new geopolitical situation disrupted the previous structures and with the absence of the Soviet regime, the successor states were left to manage on their own.

The economies of the Central Asian republics were never designed for an independent existence and faced many challenges with independence (Abazov 1999). However, compared to Kyrgyzstan, the economy of Uzbekistan had better prospects to manage independently from Moscow. A self-sufficiency of energy was an important factor contributing to this. The extensive cotton production, increasing even further with independence, also offered substantial foreign revenue. Uzbekistan managed relatively fast to find alternative markets for its cotton outside the former Soviet Union and could therefore substitute its reliance on Moscow with foreign buyers (Kotz 2002). Kyrgyzstan, on the other hand, experienced a severe economic crisis in the aftermath of independence. The country was, together with Tajikistan, one of the least developed republics in the Soviet Union and possessed few other natural resources than water. The disintegration of the Soviet unified economic space had therefore severe impact on the Kyrgyz economy as they now experienced to be cut off from this. As opposed to Uzbekistan, Kyrgyzstan could not rely on agricultural production for securing foreign revenue. The agricultural sector in Kyrgyzstan had not experienced extensive investments during the Soviet era as had the neighbouring republic.

The Kyrgyz leadership soon realised that water was their only valuable asset. Calculations showed that through further substantial investments in power stations, Kyrgyzstan had the potential for both serving domestic energy demands as well as produce energy surplus for export (World Bank 2004). Using the water in the reservoirs for energy purpose would, however, mean that the reservoirs had to discharge most of the water in wintertime, when energy demand was at its peak. This would imply that water previously saved up in wintertime for releases to irrigation in summertime, now had to be saved up during the summer months and released for energy purpose in wintertime (Micklin 2000).



Conflicting interests over the water resources between the upstream and the downstream states have prevailed since independence. Throughout the 1990s the Central Asian states made numerous attempts to reach formal agreements over shared water resources. These attempts have produced only limited success (Fradchuk 2006).

## ***Chapter 3: Emphasising institutions***

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### ***Introduction***

Due to the growing literature on institutions I will begin this chapter by discussing some of the interpretations suggested for the concept “institution”. The chapter continues with a brief discussion of one of the key issues in social science: that of structure and agency. In doing so, I wish to relate the theoretical framework used in this thesis to a broader context in social science. The relation between structure and agency will function as a red line throughout the thesis, as it raises important questions concerning how institutions are shaped. Considering that the thesis concerns the institutional outcomes in post-Soviet water management, I therefore find it relevant to use the structure-agency debate as a starting point. Institutions have gained increased popularity in theories concerned with the relation between structure and agency. Anthony Giddens’ structuration theory is an example of this. I will briefly discuss Giddens’ theory as it provides interesting insight to how institutions relate to both structure and agency.

The chapter will continue with an introduction to the theoretical school of new institutionalism which will be used as an analytical approach throughout the thesis. I review three theoretical approaches within this school: *historical institutionalism*, *rational choice institutionalism* and *sociological institutionalism*. Within each approach I will define concepts and elements that I find particularly relevant for the issue of the thesis. These concepts will be used later for the empirical analysis in chapter 6. Perspectives on the relation between structure and agency will be commented on within each theoretical approach.

### ***Institutions in theory***

The status of institutions as analytical units has changed considerably in social science over the last fifty years. From being almost an invective, to the claim that “we are all institutionalists now” (March and Olsen 2005:3). The increased use of the concept within different disciplines of social science, has led to a myriad of definitions of the very concept. The common and more traditional connotations of institutions are those of material substance, usually formal organisations like universities, courts or hospitals. The behavioural revolution during the 1950s and 1960s, however, represented an attack on the traditional view (Hall and Taylor 1996). The focus on formal government institutions, constitutional issues and public law was seen as too formalistic and old-fashioned in the eyes of a new generation

of scholars. A standard complaint was that this approach was “relatively insensitive to the non-political determinants of political behaviour and hence to the non-political bases of governmental institutions” (March and Olsen 2005:6). In a broader sense institutions have been defined simply as rules (Steinmo 2001). Greif gives a slightly more nuanced definition naming institutions “systems of social factors that conjointly generate regularity of behaviour” (Greif 2005:5).

Also within the theory of new institutionalism there are varying conceptualisations of institutions. Historical institutionalists are concerned with the rules and conventions emanating from formal institutions, which would include not only decision-making institutions but also organisations for collective action (Steinmo 2001). Rational choice institutionalists view institutions as a set of rules and information that promote gains from exchange by reducing the costs associated with the pursuit of individual rationality in strategic interaction (Hall and Taylor 1996). Finally, sociological institutionalism views institutions as the embodiment of symbols, scripts and routines which act as filters through which actors interpret their situation, their particular place in it and the most appropriate course of action for whatever decision they face (Peters 1999, March and Olsen 2005).

As noted, the study of institutions raises a basic question in social science: the relation between structure and agency. This is due the study of institutions being an analysis of what causes institutional origin, continuity and change. Attention has more recently been placed on the dual role of institutions, meaning that they result from both structures and the purposely design of actors. This I will discuss more closely after a brief presentation of the debate on structure and agency.

### ***Structure and agency***

The debate on structure and agency is one of the key concerns in social science and forms an important part of the theoretical perspectives of different disciplines. In brief, the debate has evolved around whether individual behaviour can be explained by structures in which individuals act, or whether individual behaviour can explain the formation of structures (Peters 1999). Each side of the debate has been mutually criticised for being too focused on the role of either structure or agency (Stokke 1999). Social scientists adhering to either side have consequently been accused of treating structures as the active and determinant category and agency as an empty and passive category, or conversely of regarding agency as active and social structure merely as instruments to perform actions (Smith 1998).

### ***Structuration theory***

Anthony Giddens has tried to overcome the one-sided nature of the structure-agency debate as he regards the structure-agency distinction a false dichotomy. He attempts to overcome the view that social structures and the actions of agents are two different things and instead seeks to join the two. Giddens argues that in order to understand human action, it is necessary to focus upon the duality of structure and agency. By this he means that social structures must be seen as both enabling and constraining for human action and that structures are both the medium and outcome of social agency (Giddens 1984). According to Giddens, the analysis of society involves three levels: structures, institutions and agents. Agency and structures interpenetrate in complex ways. Structures, through a host of institutional arrangements, both constraining and enabling for human action, while human agents, by their behaviour, reconstitute and may change both institutional arrangements and structures. Institutions are hence understood as both limiting and enabling the actions of human beings. Giddens has furthermore used institutions to explain how the dualistic process between structure and agency provide different societal patterns in specific locations. He has in particular been concerned with the way in which interaction becomes sediment in time and space through institutions. Institutions, he argues, develop through a process of reproduction when actors interact with one another (Giddens 1984).

### ***New institutionalism***

New institutionalism developed in political science during the 1960s and 1970s. It has been seen as a reaction to the behavioural perspectives that were influential at the time. In contrast to the behavioural perspective, which considered institutions simply as arenas where political battles were fought, the new institutionalists started to analyse how institutions *per se* shape political outcomes. New institutionalism has since its first appearance and up until today, grown increasingly frequent in political science, economics and sociology literature. The central theoretical argument of new institutionalists is that institutions shape action (Lecours 2005). By emphasising institutions in theory, new institutionalists reject two behavioural perspectives on the relationship between institutions and human action. First, they reject the perspective on institutions simply as reflections of societal forces such as socio-political, economic, cultural and ideological forces. This view is contested as it presents institutions as neutral, adjusting mechanically to changes in society. New institutionalists do not understand

institutions as continually embodying current balance of power or cultural-ideological landscapes, nor as the inevitable end-product of social change (Lecours 2005). The second behavioural perspective criticised in new institutionalism, is the claim that institutions are instruments ready to be manipulated by actors. This position is considered inadequate because it is seen as exaggerating the extent to which actors can use institutions to serve their political objectives. New institutionalists suggest that such a view marginalises the constraints on action which they argue result from the very existence of institutions. In contrast new institutionalists argue that institutions themselves can affect political outcomes. The common theoretical argument shared by these approaches is, in other words, that institutions are not only shaped by action but also shape action themselves. Hence, they argue that political analysis is best conducted through a focus on institutions or, more specifically, that political analysis should start off with analysing institutions (Lecours 2005). The dual role given institutions, implicates common features with Giddens' structuration theory. New institutionalists elaborate on Giddens' idea of duality between structure and agency where institutions work as the enabling and constraining force on both structures and agency.

New institutionalism, however, does not constitute a unified body of thought. The theoretical school is represented by several institutional approaches. Three approaches most commonly connected to new institutionalism, are the historical institutionalism, rational choice institutionalism and sociological institutionalism. Despite some common features, these approaches view the mechanisms of institutions rather differently. Their understanding of institutional continuity and change differ, as do their view on the relation between structure and agency. In the following part, I will continue with a presentation of these three approaches of new institutionalism, discussing the distinct features that separate them from one another.

### ***3.1 Historical institutionalism***

Historical institutionalism developed partly in response to the group of politics and structural-functionalism dominating political science in the 1960s and 1970s. It borrowed from the conventional approaches but also sought to go beyond them. Historical institutionalism is often considered the first approach within new institutionalism, emerging in the discipline of social science (Peters 1999). On the one hand, historical institutionalists focus on formal institutions, for example legislatures or bureaucracies. On the other hand, some historical institutionalists rely on vague concepts such as ideas to define the existence of institutions.

Hall for instance, studied the ideas which economic paradigms such as Keynesianism and monetarism, were built upon. He sought to understand how the philosophy behind these paradigms constrained the limits of action of governments through their related institutions. Institutions can through this perspective be understood as both bureaucratic agencies and their embodied ideas shaping the behaviour of their members (Peters 1999, Smith 1998).

In general historical institutionalists seek an explanation to what causes distinct national political outcomes. They have found this explanation in the way the institutional organisation of the polity and economy works as the principal factor, structuring collective behaviour and generating distinctive outcomes. Consequently they understand institutions as the structures of the polity. They hence deny the structural-functionalist view of political outcomes simply as responses to needs in the system (Hall and Taylor 1996). Through such view, a sensitivity to the geographical context is prominent. This is particularly evident in the emphasis these scholars place on national or regional trajectories and how past policies and strategies of nations or regions have formed current institutions. Historical institutionalists interpret institutions as being both developed and influenced within their geographical and historical context. Institutions are therefore seen as resulting from their particular context and further reinforced by the procedures, norms and conventions that have been embedded in these structures. One of the first studies considered to be historical institutionalist, is Hall's (1986) analysis of the development of economic policy in France and Great Britain. Through this analysis Hall pointed out the importance of institutions in shaping policies over time. Hall argued that "to understand the economic policy choices being made in these two countries (or any others) it is necessary to understand their political and policy histories" (Peters 1999:64).

Historical institutionalists have a broad conceptualisation of institutional scope and temporal influence and thus generally focus their analysis on macro level institutions with long time horizons (Greif 2005).

### ***Path dependency***

Central to the historical institutionalism is the theory of path dependency. The basic idea is that policy choices made when institutions are being formed, will have a continuing and largely determinate influence over institutions and policies far into the future. The concept more specifically involves the idea that "once a country or a region has started down a track, the costs of reversal are very high. There will be other choice points, but the entrenchments of certain institutional arrangements obstruct an easy reversal of the initial choice" (Lecours

2005:9). This is a typical evolutionary perspective, arguing that the contemporary society is shaped by previous decisions and actions. When governments opt for an initial policy and institutional choices in a policy area, the patterns created will persist, unless there is some force sufficient to overcome the natural inertia of institutions. Historical institutionalists hold that path dependency is inevitable, as the institutions and their related practices are reproduced through routines. Subsequently they emphasises a search for historical processes that have led to present day institutions (Peters 1999). This can also be related to the concept of increasing returns understood as a cycle whereby the probability of further steps down a track, increases with each step made (Steinmo 2001).

Path dependency does not, however, have to occur in a simple straightforward manner, but can also work reflexively. This suggests that the institutional rules and structures generate attempts to solve the problems posed by the initial institutions themselves. March and Olsen (2005) argue that assumptions of historical efficiency cannot be sustained within the theory of path dependency. By historical efficiency they mean the idea that institutions adapt to their environment and quickly achieve a uniquely optimum solution to the problem of surviving. March and Olsen argue quite on the contrary that the matching of institutions takes time and can have multiple, path dependent outcomes. They further argue that adoption is less automatic and less precise than assumed by standard equilibrium models and it does not necessarily improve efficiency and survival (March and Olsen 2005). Steinmo (2001) agrees by arguing that any modifications to existing institutions appear to be highly contingent on the previous institutional structures even if its inefficient.

### ***Institutional continuity and change***

A critique of historical institutionalists has been their lack of ability to explain institutional change. The entire analytical framework of the approach is premised upon the *enduring* effects of institutional and policy choices. A notable feature of historical institutionalism is the prominent role that power and asymmetrical relations of power play in their analyses of the enduring effects of institutions. The historical approach is especially attentive to the way in which institutions distribute power unevenly across social groups. The proponents of the historical approach do not regard the individual *per se* as possessing power. However, they regard the very nature of institutions as inevitably giving some groups disproportionate access to the decision making process. Rather than emphasising that an outcome makes everyone better off, they tend to emphasise that institutions evidently make some groups lose while others win (Hall and Taylor 1996). Changes in institutions are believed to evolve when

such power asymmetries are disrupted. However, the approach is rather vague on how such changes really occur. Pierson (1996) has pointed out that evolution is the basic idea behind institutional change in historical institutionalism. In his view most institutional designs contain some unanswered or dysfunctional elements that generate a subsequent need for change. Thus, incremental adjustment, that is minor changes over time, can be seen as a means of change. As noted above however, these changes will not necessarily lead to more efficient institutions.

In general historical institutionalism appears to be much better suited for explaining the *persistence* of institutional patterns than how these patterns might actually change.

### ***The perspective on structure and agency***

The historical institutionalists view individual behaviour as strongly (i.e. unconsciously and internally) constrained by path dependent institutions. Scholars of this approach assign a minimal role to individual agency in creating or altering institutions. Institutions are portrayed as structures and subsequently products of evolutionary processes, rather than a purposeful design by strategic and forward looking individuals. Forces in society are regarded as structural elements of institutions, establishing constraining or enabling conditions that make certain outcomes more likely than others (Steinmo 2001). Even though historical institutionalists view structural elements as establishing conditions that make certain outcomes more likely than others, they argue that there is still a need for individuals to translate these constraints into action. If no such linkage exists between individuals and institutions, it is difficult to see what links present behaviour to earlier decisions of the institutions (Peters 1999). Some historical institutionalists make use of ideas as an explanation of how agency acts within the structures. The capacity of structures to “sell” ideas to members of an institution, and make institutions conventional or taken for granted, is crucial for the structure to persist. If not other structures will occur, they argue. The failure of historical institutionalism to explain or predict such structural changes, however, makes the approach more descriptive than explanatory (Peters 1999). The approach has therefore been criticised for placing too much emphasis on structures as the dominant mechanisms in society (Hall and Taylor 1996).



### ***3.2 Rational choice institutionalism***

Rational choice institutionalism, taking its leads from rational choice theory in economics, developed at the same time as historical institutionalism but nevertheless in relative isolation from it. The approach is inspired by the analytical perspectives in new economics of organisation. It emphasises the importance of rent-seeking and transaction costs in the operation and development of institutions. An especially influential perspective has been that institutions are resulting from efforts to reduce transaction costs. Rational institutionalists claim that institutions originate and endure because transaction costs *with* these institutions are lower than without them. Institutions are hence believed to develop as responds to necessities in the society (Hall and Taylor 1996).

A notable feature of the rational choice approach is the behavioural assumption, generally a disregarded feature within new institutionalism. The general perspective is that actors have a fixed set of preferences making them behave instrumentally. This is to maximise the attainment of preferences. Hence, actors behave in a strategic manner based on extensive calculations. Given that rational choice theory place a utility-maximising attribute to individuals, it would appear that attempting to relate this theory to institutions, and especially the constraining influence of institutions, would be somewhat contradictory. Despite the individualistic basis, underpinning their analytical approach, rational choice institutionalists nevertheless understand political life as occurring *within* institutions. They argue that to provide a comprehensive explanation of politics, their theories must address the nature and role of institutions. This has given the rational choice approach to new institutionalism the term “choice-within-constraints” approach (Lecours 2005:9).

Rational choice institutionalists have been criticised for having a functionalist view on institutions due to their argument that institutions emerge to meet social and economic necessities. More than any other approaches the rational choice version takes institutions as givens, or as something that can be easily created, rather than resulting from historical and differentiated processes. The supposition is that if effective institutions can be constructed and managed, then in time, and perhaps not very much time, the appropriate values will also be created. The general assumption, coming from Friedrich Hayek is that “if there is a logical need for the institution it will be created, given that actors are rational, or that it will emerge” (Hayek in Peters 1999:54). Terry Moe, one of the leading rational choice theorists within new institutionalism has argued that “economic organisations and institutions are explained in the same way: they are structures that emerge and take the specific form they do because they solve collective action problems and thereby facilitate gains from trade”

(Moe in Peters 1999:54). Elinor Ostrom assumes that “the tragedy of the commons” or “common-pool resource” situations often trigger the creation of institutions for the purpose of securing the commitments on the parts of the actors and enforce rules (Ostrom in Lecours 2005:12).

### ***Bargaining strategies***

The rational choice approach interprets the process of institutional formation in much the same way as contracts are negotiated and signed. That is, actors design institutions by adopting bargaining strategies based on their own preferences and the short- and long-term outcomes they expect these institutions to produce, as well as on the strategies they expect other self-interested actors to pursue (Lecours 2005). Rational choice institutionalists hence emphasises the role of strategic interaction in the determination of political outcomes. In other words they argue, first, that an actor’s behaviour is likely to be driven, not by impersonal historical forces, but by strategic calculus. Second, that this calculus will be deeply affected by the actor’s expectations about how *others* are likely to behave. Institutions structure such interactions by providing information and enforcement mechanisms, reducing uncertainty connected to the corresponding behaviour of others. Through such a perspective the rational choice theorists reject the emphasis that the historical institutionalists place on the role of history. The rational choice approach postulates that an actor’s behaviour is likely to be driven “not by impersonal historical forces” but by a strategic bargaining calculus (Hall and Taylor 1996:12). Moreover they argue that this calculus will also be affected by the actor’s expectations about how others are likely to behave. Put differently, the rational choice theory focuses on general patterns of behaviour rather than emphasising contextual influence, such as history or geography. Also the rational choice perspective assumes that institutions are formed on a *tabula rasa*. That is; independently from other influential forces. Peters (1999) notes that in the rational choice approach, past history of institutions seems to be of little concern. The assumption in this approach is that new sets of incentives for institutions, can produce changed behaviour rather easily. In short the basic argument by the rational choice approach is that utility-maximisation can and will remain the primary motivation of actors in the formation of certain institutions. They note however, that actors may realise that their goals can be achieved most strategically through institutional action and are therefore willing to sacrifice some latitude of action in order to receive benefits.

The rational choice approach thus focus on explaining institutions as the outcome of strategic bargaining between goal-oriented actors. They seem less interested in elucidating the nature of the very bargaining process themselves.

### ***Institutional continuity and change***

To explain mechanisms behind institutional continuity and change, the rational choice approach emphasises the role of strategic interaction. Such interaction is seen as determinant to political outcomes and consequently strategic interaction will produce outcomes resulting in the establishment of certain desirable institutions. Sened argues

[I]nstitutions are shaped from the desire of one or more individuals to impose their will on others. [...] those individuals must have the capability to manipulate the political structure in order to create such an institution, and must anticipate that they will be better off with the institution than without it (quoted in Peters 1999:55).

According to Hall and Taylor (1996) the rational choice approach explains how institutions change through this strategic interaction argument. Rational choice institutionalists argue that when political leaders feel their power threatened in some way, they will embark on certain bargaining strategies favouring their position. Luong (2002) explains institutional continuity and change in the same manner, exemplifying with political elites facing new political situations. She emphasises the role of elites' perception of shifts in their relative power. In short she argues that those who believe their relative power is increasing with a change in the political situations, will seek to alter or create new institutions such as to receive additional benefits. A perceived shift in relative power therefore motivates institutional innovation. On the other side, those who believe that their relative power is decreasing, will seek to retain as much of the distributional advantages, accorded to them by previous institutions. In the last scenario a greater degree of institutional continuity is to be expected. Institutional change and continuity can through such perspective be explained as resulting from a shift in perceptions of power, leading actors to choose certain bargaining strategies based on their own preferences.

### ***The perspective on structure and agency***

The rational choice approach ascribes agency a much more influential role than does historical institutionalism. The approach understands individuals as playing a deliberate and direct role in the design of institutions. Hence, in the rational choice institutionalism, politicians are seen as manoeuvring as to maximise personal utilities. What distinguishes this

approach from classical rational choice theory is the perspective that the options of actors are inherently constrained. This is due to their activities being operated in the rule set of one or more institutions. Actors are able to influence social processes but within constrained structures of institutions, initially imposed by the actors themselves. Institutions are therefore considered as self imposed constraints simultaneously establishing structures which enable access to otherwise uncertain terrains (Lecours 2005). This implies an understanding of institutions as collections of rules and incentives that establish the conditions for what the rational choice institutionalists call bounded rationality. Institutions in a given society therefore constitute the political space in which interdependent actors can function (Peters 1999).

### ***3.3 Sociological institutionalism<sup>4</sup>***

Sociological institutionalism arose primarily within the sub-field of organisation theory and dates roughly from the end of the 1970s. Scholars of sociology challenged the distinction traditionally drawn between the social world, reflecting rationality and the social world associated with culture. The traditional view in organisation theory understood institutional arrangements as efforts to make interaction as efficient as possible. Similarities in structures identified among diverse institutions, were therefore thought to result from an inherited universal rationality of all actors, wanting to perform tasks as efficient as possible. Through this view culture was seen as something altogether different. Contrary to this, sociological institutionalists argued that many of these structures should be seen as culturally and often geographically specific practices assimilated into institutions. This was not necessarily to enhance their efficiency, they argued, but as a result of processes associated with cultural practices more generally (Hall and Taylor 1996).

#### ***Cognitive templates***

The sociological approach to institutionalism reflects a cognitive turn in new institutionalism. Proponents of this approach argue that knowledge about institutions, are critical for understanding the structures behind social, political and economic interactions in different cultures (Steinmo 2001). They argue that cultures are shaped by common institutions which provide interaction for its members. Out of such interchanges, the actors are said to develop shared cognitive maps, often embodying a sense of appropriate practices, which are then

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<sup>4</sup> Peters (1999) categorises some sociological institutionalists to be normative institutionalists. In this thesis I adhere to Hall and Taylor's (1996) categorising who labels both these groups as sociological institutionalists.

widely deployed (Hall and Taylor 1996). Through the sociological approach culture became an element not exclusively associated with attitudes and values, but also seen as networks of routines, symbols or scripts, providing cognitive templates that guide human action (Lecours 2005). Peter Jackson's definition of culture shares common features with the sociological approach. Jackson defines culture as "maps of meaning through which the world is made intelligible" (quoted in Mitchell 2000:63). These maps of meanings and cognitive templates are what the sociological institutionalists define as the cultural environment where institutions origin, develop and change.

Sociological institutionalism shares a common feature with historical institutionalism by emphasising the role of history. The sociological approach argues that past culture provides a "tool kit" that facilitates the reconstruction of a society facing new situations and that past cognitive models shape the way new situations are perceived. Greif (2006:188) argues that

Institutional elements reside in individuals' memories, constitute their cognitive models, are embodied in their preferences, and manifest themselves in organizations, they are what individuals bring with them when they face new situations.

In line with this sociological institutionalists also recognise that institutions inherited from the past, have various capacities that they obtain through operations, such as routines, information and additional assets such as trust and legitimacy. These assets increase their ability to accomplish various tasks. The cognitive maps inherited from the past therefore make the bases for what is seen as morally right and hence appropriate in a society today. Sociological institutionalists thus argue that the cognitive templates of a society constitute legitimacy as the cognitive maps rule out what is regarded appropriate or not in a society. Legitimacy is moreover thought to be embedded in institutions which are developed over time (Lecours 2005). In some cases they argue, institutions may actually be dysfunctional with regard to achieving the organisation's formal goals and has been described as the "logic of appropriateness" by contrast to "logic of instrumentality". As an example Soysal points out that the state's policies connected to immigration, show such logic of appropriateness as these policies are pursued, not because they are the most functional for the state, but because the evolving conceptions of human rights promulgated by international regimes, has made such policies appropriate (Soysal in Hall and Taylor 1999:16).

Sociological institutionalists argue that institutions do not necessarily crumble when they lose efficiency as advocated by rational choice institutionalists, but rather when they no

longer are in tune with dominant social and cultural codes (Lecours 2005). Central to the approach is the question of what confers legitimacy or social appropriateness on some institutions and not others. Advocates of the sociological approach argue that this is ultimately an issue of cultural authority. Some sociological institutionalists argue that such cultural authority develops when a state expands its regulatory scope and impose practices on societal organisations by public fiat. Others stress the way in which the growing professionalisation of many spheres creates professional communities with the cultural authority to press certain standards on their members (Hall and Taylor 1996).

### ***Social capital***

An increased attention to social capital and the role of social capital for institutional performance have been adopted by sociological institutionalism. The concept is most often linked to Robert Putnam who defines social capital as

[T]he features of social organisation such as trust, norms and networks that can facilitate the efficiency of society by facilitating coordinated action” (Putnam 1993:167).

The concept has been object for much scrutiny due to a vague conceptualisation but has nevertheless provided interesting perspectives to the study of institutions. Putnam views social capital as the cornerstone in every successful institution. He has through extensive studies shown how trust affects institutional performance, making inter action more predictable for its members (Holm-Hansen 2000). Furthermore he emphasises that social capital such as trust is produced and re-produced over time developing shared templates for interaction between actors. These shared templates are at the bases for institutional development as they provide common understanding about interaction.

The Polish sociologist, Piotr Sztompka, follows up Putnam in his insistence on the importance of trust. Sztompka makes use of trust as a precondition for proper and full utilisation of other resources like entrepreneurship, legalism and full exploitation of institutional opportunities emerging from the market, democratic policy and pluralistic thought. Sztompka further argues that the key to a robust civil society is a high level of trust in public institutions. Trust in the state strengthens civil society, according to Sztompka. Sztompka explains his point through an empirical example using the post-socialist society. He describes the previous socialist states as “civil society in conspiracy” where the state is conceived as entirely alien. This is due to the previous institutional framework based on

assets such as control and a complete lack of trust. Without a culture of trust he characterises the pathology of state socialism as a “*culture of distrust*” (Holm-Hansen 2000:9)

### ***Institutional continuity and change***

The sociological approach explains institutional continuity and change in a different manner than the two other approaches. Proponents of the sociological approach reject the rational choice approach’ explanation of institutional development as a response to functional needs to make society more efficient. It also differs from the historical institutionalists by modifying the role of history, claiming that other forces than historical structures shape institutions. Sociological institutionalists argue that society adopt new institutional practices, not because it advances the means-end efficiency or because the history inevitably has caused these practices, but because it enhances the social legitimacy of the organisation or its participants. When discussing institutional continuity and change, the advocates of sociological institutionalism use their concept of cultural environment. They argue that institutions are conditioned on the cultural environment for whether it is conceived as legitimate or not. Sociological institutionalists illustrates this by arguing that if an unknown and previous isolated society was discovered, their interaction with the outside world would cause a number of changes to their society. These changes would be caused by the outside world’s cultural expectations rather than their own sets of goals. In other words, societies embrace specific institutional forms or practices because the latter are widely valued in a broader cultural setting<sup>5</sup>. This implies that institutions embedded in the cultural environment will be challenged if the cultural environment and the cognitive templates constituting this environment is exposed to change (Lecours 2005).

### ***The perspective on structure and agency***

None of the above suggests that individuals are not purposive, goal oriented or rational. However sociological institutionalists emphasises that what an individual will see as “rational action” is itself socially constituted. The above implies that institutions interpreted as networks, social capital and common cognitive templates, may enable agency but that this is contingent on the cultural environment. An example of this is a cultural environment where institutions are based on trust contra one that is based on control. A society based on institutions that provide a high degree of trust among its members, will create a more

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<sup>5</sup> [www.ir-online.org/insti\\_ext/text\\_start.shtml](http://www.ir-online.org/insti_ext/text_start.shtml)

enabling environment for the agency within the existing institutional structures. Similarly will a society with a lack of institutions based on trust, constrain the agency through more controlling structures. As institutions are embedded in society individuals become socialised into particular institutional roles. Individuals will internalise the norms associated with these institutional structures so that institutions affect behaviour by either constraining or enable it (Lecours 2005). Sociological institutionalism does hence regard the duality of structure and agency as conditioned by the cultural environment.



## *Chapter 4: Methodology*

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### ***Studying institutions***

While institutions tend to appear to people in society as part of the natural, unchanging landscape of their lives, the study of institutions in social science tends to reveal the nature of institutions as social constructions and artifacts of a particular time, culture and society (Lecours 2005). However, the study of institutions immediately raises some methodological challenges. First and foremost there is an absence of a clearly stated methodology in new institutionalism, making it difficult to categorise a study as being “institutionalist” (Harty 2005). Second, due to the conceptualisation of institutions comprising everything from material substances to ideas, the very outset for the epistemological fundamentals are rather blurred. However, new institutionalism is a theoretical enterprise, meaning that its objective is not to describe institutions and how they work *per se*, but rather to elucidate how they affect political outcomes (Lecours 2005). The object of this thesis is to discuss how Soviet institutions have affected regional water management in Central Asia. Hence, I argue that the theory of new institutionalism provide a theoretical framework consistent with this aim. However, the vagueness of institutions as a concept gives implications for what methodology is the most suitable. This will be discussed in the following chapter. First I will comment on the research field in which the data collection was conducted.

### ***Field work***

All of the first-hand information was gathered during a period of two months fieldwork. The field research was conducted from September through November 2005 in Kyrgyzstan and Uzbekistan. I spent the longest time in Kyrgyzstan, where I conducted seven interviews in Bishkek, one interview in Osh and one in Batken. In addition I had several informal conversations and group discussion with farmers and local people in different locations in Kyrgyzstan. One formal interview was carried out in Tashkent, Uzbekistan. Acquiring an Uzbek visa proved to be a time consuming process and constrained by bureaucratic affairs. I therefore had to spend more time in Kyrgyzstan than anticipated. My initial plan was to do research both in the Kyrgyz and Uzbek part of the Ferghana Valley. However, due to political uprisings in Andijan in the Uzbek part of the Ferghana Valley in May 2005, I decided to keep to the Kyrgyz part of the Ferghana Valley. Hence, I made only one daytrip to the Uzbek side of the Ferghana Valley. I also spent some time in northern Tajikistan as my initial idea was to

include Tajikistan in the study. As I soon became aware of, however, Tajikistan hold a distinct position, compared to its neighbours as the country struggled with civil from 1991-97. This meant serious set-backs in terms of political and economic development. Hence, I chose to concentrate on Kyrgyzstan and Uzbekistan. Consequently I have not included the data collected in Tajikistan in this study. The stay in Tajikistan nevertheless gave me an extended understanding of the general water management situation in Central Asia.

### ***Qualitative method***

I have chosen a qualitative research method for the collection of data material. I hold that a qualitative approach to a study of institutions serve as the most suitable method as this allows for a in-depth analysis of such social phenomena. Based on the choice of theoretical framework I also find it reasonable to choose a qualitative approach as the epistemological perspective of new institutionalism is grounded in social constructivism (Lecours 2005). Hence, institutions can best be analysed through peoples own perceptions of how society is organised. Based on such assumptions I hold that institutional formation, continuity and change can best be elucidated through a qualitative approach which offers a multidimensional in-depth research method and analysis. By choosing to interpret institutions as both formal and informal social constructions, such as norms, networks and unwritten rules, it was important to choose a methodological angle which allowed me to discuss such rather vague elements of the society more in-depth with my informants.

Qualitative research methods are also particularly appropriate for gaining an understanding of the complexity and multiplicity of societies. Qualitative methods provide multidimensional tools that are appropriate for the study of such complexity (Thagaard 2002). Interpretation and thorough analysis are essential in qualitative methods and therefore require substantial insight about the field of research from the researcher involved. In order to maximise my understanding of the highly complex water management situation in Central Asia, I wanted to use a method that could provide me with in-depth knowledge of the issue. I have used qualitative interviews as the main method of data collection. I also used group discussions and to a lesser degree observation.

### ***Semi-structured interviews***

As I anticipated that my informants would hold different positions, rank, experience, nationality etc., I chose semi-structured interviews as the most appropriate means of data collection. The advantage of this approach is that it is more sensitive and people-oriented,

allowing interviewees to construct their own accounts of their experience by describing and explaining using their own words (Flowerdew and Martin 1997). Such an approach also allowed me to change the angle of the interviews according to the positions, rank etc. of the informants. As the aim of the thesis not have been to compare what the informants said, but rather try to gain an extensive insight on the issue of concern, using such a flexible interview form was a suitable method.

Another important reason for choosing semi-structured interviews was that this would allow the informants to raise issues that I myself had not anticipated. Even though I had tried to read as much as possible about the issue prior to the fieldwork, I initially found the water management situation somewhat confusing. The first interviews I conducted was therefore characterised as an explorative phase. The first interview I conducted was with a representative of an international organisation who had extensive knowledge of Central Asia, both in relation to the water management sector and economic transition. The second interview was with the director of The Institute for Water Problems and Hydro Electrical Power in Bishkek. Both these interviews provided me with a useful overview of the water management situation and gave me a solid starting point for the following interviews.

Prior to the fieldwork I had developed an interview guide (see appendix 2). This guide was helpful particularly during the first few interviews when I was not so familiar with the field. It was also useful to have the guide as to make sure the interview stayed relevant for the issue at concern. The problems of water management in Central Asia are very complex. It was therefore easy to get “carried away” by the topic, sometimes ending up discussing issues that had no direct relation to the thesis. The guide helped me to get back on track when I felt that the interview came out of focus. However, as my informants varied extensively in position, rank and background it was not possible to have a standardised interview guide. It was therefore necessary to redesign the guide several times as to match the informant.

The topic of the thesis did sometimes cause problems as it could be difficult to communicate the actual issue in question. Given that the legacy of the Soviet Union and the concept of institutions can produce different connotations to different, people it was sometimes a problem that the conversation ended up being a detailed account of formal institutions. This was particular so with the informants which were not academicians but technical experts. When this was the case I would try to ask questions that indirectly could touch upon institutional factors rather than asking direct questions on institutions. For example would I ask questions about how decision-making in water related fields in the Soviet Union was carried out and then I would ask about decision-making in the same

spheres today as to possibly track differences or similarities that could be interpreted as institutional change or continuity. When preparing questions for the interviews I also tried to reflect on what answers I thought the questions would produce as to prepare for possible follow-up questions based on such assumptions. This process also made me reflect over the intention with the questions I developed and how they could be further improved or clarified.

My initial intention was to record all the interviews on tape. However, this was only done with the first two interviews. After that I chose not to tape the interviews for a number of reasons. First of all it proved difficult to appoint interviews with the informants in closed rooms. Several interviews were carried out with other people in the room, causing noise that I presumed would make the recording poor. In addition there was also two informants that did not want me to record their interviews. One interview was also appointed spontaneously and I did not have the recorder with me. Most of my interviews were therefore documented by carefully notes which were worked through in detail after the interview had ended. I did not experience any major constraints by simultaneously writing and listening. To avoid missing information, I would try to summarise the main essence of the interview as it came close to an end . The interviews that were taped were transcribed both during and after the fieldwork. The interviews lasted from 20 minutes up to one and a half hour.

All the quotas that are used in the thesis are direct quotations that I wrote down during the interviews or from the transcribed material. Appendix 1 provides information on which interviews were carried out in which language.

### ***Informants***

As an ideal goal prior to the fieldwork, I set out to gain as many different views of the regional water management situation as possible. I therefore tried to contact informants of different ranks and positions, informants with Kyrgyz and Uzbek nationality as well as representatives of international organisations. My informants can roughly be grouped in two (see appendix1). The first group consisted of water experts and officials. The second group was international organisations. Some informants, however, belong to both groups.

The first group was important for the study as to gain an insight to the problem in terms of how the water institutions work in practice, technical as well as political problems, their personal views on regional water management, prospects for the future and the like. To get in touch with water experts was easier than anticipated. However, the informant at the ICWC in Tashkent was rather reluctant towards my interview. I was told that the ICWC has a lot of foreign researchers coming at all times and I got the impression that they were rather sick and

tired of answering questions. I had problems to get in touch with water officials, which number only one out of my informants. This was often due to practical problems as I found it difficult to find contact information, addresses and the like for where to direct my inquiries. I also sometimes experienced strong reluctance when I presented myself as a student.

The second group of international organisations, was rather easy to get in touch with. This group was relevant for my study in particular in Kyrgyzstan where foreign actors have been playing an important role in the water management sector. It was also useful to gain information from “outsiders” and I experienced that these informants had a clearer vision of what I meant by Soviet legacy.

The selection of informants was partly based on already arranged meetings. These were mainly informants of the second group to whom I had found contact information on the internet. I was, however, also basing the selection of informants on the snowballing method, which meant that informants I talked to suggested other informants they thought would be interesting for me to talk to. This proved both effective and challenging. I experienced one informant calling a colleague during the interview, organising for me to meet with another informant in ten minutes. This meant that I had no time to prepare for the interview. The snowballing method was nevertheless helpful and produced meetings with informants I might not have found on my own.

All of the informants, except one, permitted me to use their name in the thesis as well as to quote what they said. I have, however, chosen to leave out the names as I believe the positions that they hold are more relevant in this case. The informant who wanted to be anonymous I have chosen to call the “economist”. Apart from the informants listed in appendix 1, I also talked to a range of other actors both in formal and informal settings.

### ***Group interviews***

In order to capture the local level dynamics of how people have adapted to and experienced the water situation in a post-Soviet context, I also wanted to talk to local farmers. As for the local level of the thesis I chose the Ferghana Valley as a suitable area. The Ferghana Valley is a densely populated area divided between Kyrgyzstan, Uzbekistan and Tajikistan. Tensions over water is highly prevalent here and have occasionally turned violent.

Brandth (1996) defines group interviews as a method where more than one person discuss a topic and where the interviewer leads the discussion. This definition fits the description of the group interviews that I conducted in the Ferghana Valley. I conducted four sets of group interviews. These were in the villages of Barak and Djangarif in the Osh region,

and the village of Bunjun and Ravat in the Batken region. All villages are located on Kyrgyz territory. The village of Barak, however, is situated in a Kyrgyz enclave on Uzbek territory. At one group discussions I was attended by a local NGO, the other three I conducted independently. The informants were picked randomly as the single purpose of the conversations was to gain insight in local peoples situation in general. The number of informants varied from 5-15 and would increase and decrease as farmers chose to attend or leave. I used an interview guide (see appendix 2) which structured the topic of the discussions. I tried however, to make the discussion flexible and open for issues of concern by the farmers themselves. I made notes of what the farmers discussed. This was challenging when people talked in each others mouths and could have been eased by the use of a recorder. However, I wanted to keep the conversations casual and decided that the farmers would talk more freely without recorder. Inevitable I missed some information this way. Nevertheless I value this method as a great opportunity to gain insight into the local water management situation. This also has helped me to capture a broader understanding of the issue.

### ***Observation***

In addition to the interviews and group interviews, I also used observation as a research method. On two occasions I joined a NGO out in the field where I was guided around to local water stations and canal building projects. Both these field trips were in the Ferghana Valley, one in Kyrgyzstan and one in both Kyrgyzstan and Uzbekistan. During these trips I was thorough explained how the regional water management system worked in practice. On several occasions I could see for myself how the irrigation canals crossed national borders. These trips were very useful in means of perceiving a greater understanding of the problem of regional water management.

### ***Language***

Russian is still the international *lingua franca* in Central Asia. In Kyrgyzstan Russian is the official language together with Kyrgyz. However, Russian is more widespread in large cities than in the countryside. Nevertheless, most people in the countryside also have good communication skills in Russian. In Uzbekistan Russian is no longer an official language, but is is nevertheless widespread as *lingua franca*.

After two longer periods of work and study in Russia and one year studying Russian at the University of Oslo, I characterise my Russian as relatively good. However, the language

situation still gave me some challenges in the interview situation as the conversation could get quite technical at times. Five of the interviews were carried out in English, four in Russian and one mixed with both English and Russian. When the interview was carried out in Russian I experienced a greater restraint for asking spontaneous follow-up questions. However, I made sure to note all contact information in case I needed to reconfirm or elaborate on the information at a later point. This was also done in two separate cases, once by e-mail and once by telephone, which helped me clarify important points.

### ***Reliability and validity***

Reflections on reliability and validity will inevitably be an issue of concern in any study. I will therefore conclude this chapter with some reflections on the reliability and validity of the data material. The question of reliability of the data concerns whether the data is collected in what Thagaard (2002) calls a trustworthy manner and would yield the same results on repeated trials. In order to increase the reliability of my data material I have used the material in its original form where this has been possible. That is I have used the informants' own words and statements, to the extent possible. This allows for the reader's own interpretations of the material. I have also throughout the thesis made available the sources of secondary data which gives the reader the opportunity to check all data sources. This has also contributed to a distinction between the interpretations that are my own and those of the informants, different organisations or authors. Thagaard (2002) also notes that a problem of reliability arises where interviews are documented only through notes. She points out that this raises the chance of the notes being subjective as the researcher will note what he/she finds most important. An objective position by the researcher is impossible when using qualitative interviews. By checking my information up against secondary literature where this has been available I do, however, find my data material consistent. To assure reliability in general I would ask different informants the same questions as to check whether the answers were consistent. I have also tried to cross check the information with other secondary sources of data.

Another problem of the reliability is whether the information coming from the informants is reliable. A question of reliability of the informants, also pointed out by Thurman (2001), is the recalling of the Soviet era as "the golden age". This was in particular a wide spread opinion among the farmers I talked to in the Ferghana Valley. I was repeatedly told by farmers that "There was never any problems in the Soviet Union". Thurman points out that such "glorification" of the Soviet era is highly questionable as he argues that the

water management system was far from flawless in the Soviet times. He therefore argues that golden memories from the Soviet era says more about poor water management today rather than how good it used to be. However, I still argue that the “glorification” contributes to shedding light on the aspects of legitimacy in the Soviet Union, which is the context in which I use such “golden memories”. Hence, I argue that such glorification is nevertheless an interesting aspect of post-Soviet water management, even though the reliability of such statements can be scrutinised.

The validity of data material refers to whether the data provided actually can elucidate the issue of concern. To ensure the validity of the data material I would try to repeatedly reflect over the questions of my interview guide and whether these provided information of relevance. As noted did the complexity of the issue sometimes lead the interviews into topics of less relevance for the thesis. By paying attention to this during the interviews, however, I consequently tried to lead the interview back on the issues of concern. This called for a careful balance as I did not want to risk cutting informants off. I therefore tried to the degree possible to link their information to the relevant topic as to get the interview back on the right track. In the group discussions with the farmers it was difficult to ask direct questions of institutions. As discussed is the conceptualisation of institutions rather vague. I therefore tried to ask questions that could produce relevant information as to make the data collected here as consistent with the issue as possible.

### ***Concluding remarks***

Central Asia is a challenging field in terms of practicalities. These were in particularly great since the research was carried out independently. This meant that I had to rely on my own judgements about where to carry out research and decide which regions that I believed would be suitable research fields. Travelling in the region proved time consuming as the infrastructure is rather poor. However, within the time and resources at hand, I am satisfied with the material provided and feel confident that the information contributes to shedding light on the regional water management situation.



## Chapter 5: Post-Soviet transition

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### *Introduction*

With the downfall of state socialism a theoretical debate evolved among social scientists throughout the 1990s. The issue of concern was the economic and political transition of the former socialist states in Eastern Europe and parts of Asia. At the heart of the debate were general questions concerning the nature of past socialist societies. Were these societies essentially marked by the past, or did the dissolution of the Soviet Union offer a new start for the independent states to build democracy and market economy? Related to the above was another major disputed question: Should reformers accept and build on remnants of the previous state structures, or should such elements simply be ignored or even eliminated? Two main camps developed among scholars, represented respectively by advocates of radical reform and proponents of gradualist reform (Holm-Hansen 2000).

The divide between the radical and gradual transition approach, was clearly evident in the strategies presented as the most feasible way of transforming the plan economy to a market economy. As the names of the approaches indicate, one of the key issues at dispute concerned the time frame in which the market-based reforms should be carried out. Would a radical break, “no-look-back”, be the best solution or would a step-by-step approach lead the way? Apart from the stark disagreement regarding the pace of transition, another point of departure in the debate was related to the role of institutions. The radical reformers regarded the collapse of the Soviet Union as an opportunity to start from scratch (Åslund 2002). The demise of the Soviet Union did, in their view, offer a *tabula rasa* upon which completely new democratic and market-based institutions could be developed. The gradualist reformers, on the other hand, opposed this view, arguing that such a *tabula rasa* was neither possible nor desirable for acquiring a society based on democratic and market friendly institutions (Stiglitz 1999a). A general disagreement about the role of past institutions was therefore central to the transitional debate.

The dominating discourse within the transition strategies of both the proponents of radical reform and gradual reform, framed transition as a linear trajectory from socialism and plan economy towards democracy and market economy. However, the assumption of such a linear transition have been criticised by some scholars who have accused the transition discourse for being based on teleological presuppositions. Critics such as Stark (1998), Vedery (1996) and Gerner (1995) have pointed out that merely using transition as a

concept, implies assumptions of a linear process leading from a known society A to a given society B. Vedery has claimed that societies of transition would inevitably produce a variation of outcomes “some of them perhaps approximating Western capitalist market economies and many of them not” (Vedery 1996:15). Vedery has therefore argued that transition must be understood as a more open-ended process. She calls for a greater understanding of the post-socialist states as experiencing a transition *from* socialism, not necessarily *to* democracy and market economy.

Being aware of the contestation with the actual concept of transition, I will nevertheless continue with a presentation of the two opposing sides of the transition debate. I will present their normative perspectives on a transition from socialism and plan economy towards democracy and market economy. I will place particular emphasis on their distinct views on institutions. Due to the complexity of these economic reforms, I will focus primarily on the general ideas of the strategies. The reform approaches each share some significant resemblances to the theories within new institutionalism. Hence, I will make final comments to each reform approach, pointing out their common features with these theories.

### ***Radical reform***

The radical reform strategy was fronted by neo-liberalist Western economists and academics such as Jeffrey Sachs, Anders Åslund and David Lipton, Eastern European economist such as Leszek Balcerowicz together with financial institutions such as the International Monetary Fund (IMF) and the World Bank (Holm-Hansen 2000, Åslund 2002). These all became influential advisors to leaders in post-socialist societies facing transition. Their argument was that a transition towards democracy and market economy would most efficiently be carried out through so-called “shock reforms”. According to the World Bank 1991 World Development Report, this policy implies that reforms are “implemented quickly in a concentrated period lasting less than two years, with the focus on reaching a macroeconomic equilibrium” (WDR 1991:117).

The advice to transition economies stemming from the advocates of radical reform, stressed the importance of reaching macro-economic equilibrium through a rapid liberalisation of prices and markets. Extensive privatisation and a withdrawal of state control, was further more promulgated as to attain macroeconomic stabilization. It was believed that such policies would set the transition countries, after a relatively brief period of difficulties, on a path towards an efficient, rapidly growing market economy (Kotz 2002). Implementing such changes in the post-socialist states would, however, imply a considerable break with the

current fundamentals in these societies. It would lead to the introduction of complete new sets of market conditions and the demolition of the previous economic and social structures. Anders Åslund, a Swedish economist among the most prominent advocates of radical reform, argued that it was essential for these reforms to be

[R]adical, comprehensive and fast to break hold of the old system and introduce a viable new market economy” (Åslund 2002:79)

Part of the reason why the radical reformers stressed that the transition had to be rapid, was to avoid a state of cognitive dissonance. Balcerowicz (1995) argued that

[P]eople are more likely to change their attitudes and behaviour if they are faced with radical changes in their environment, which they consider as irreversible, than if those changes are only gradual.

The proponents of radical reform claimed that the old economic structures, and the institutions embedded in these, represented a threat to transition. Old socialist institutions, ideas and networks were therefore regarded as obstacles in the building of democratic and market based institutions (Sachs and Lipton 1990). The proponents of shock therapy feared that the radical reform would face opposition by the state bureaucracy, as the latter inevitably would lose its prior power. The radical reformers therefore believed that the danger of a bureaucratic counterrevolution was apparent, if bureaucrats were not “disarmed through radical reform” (Åslund 2002:81). Åslund argued that instead of dwelling upon legacies from the past, such as cultural attitudes and old institutions, and the way these affect the current institutional environment, it was more important to emphasise the role played by contemporary factors, such as reform policies, technology and investments, when forming new institutions. Åslund has through such a perspective warned against looking back and into particularities of countries and cultures, claiming that “more often than not, culture, history and religion are brought up as substitutes for solid analysis” (Åslund 2002:75).

Fundamental to the radical reform approach was also that the trajectory towards a market economy would be based on the same premises for all countries. At a World Bank meeting in Bangkok in October 1991, the chief economist at the time, Lawrence Summers, claimed:

Spread the truth - the laws of economics are like the laws of engineering. One set of laws works everywhere (Gerner et.al. 1995:208)

Due to such views the radical transition strategy has been criticised for relying too much on textbook models and blueprint strategies of economics.

The critique directed towards shock therapy has particularly been concerned with its institutional approach to transition. The radical reformers have been accused of advocating what March and Olsen have called a non-institutionalist approach. This is the conviction that historical processes move rapidly to “a unique solution, conditional on current environmental conditions, and is thus independent of the historical path” (March and Olsen quoted in Holm-Hansen 2005). Douglas North, a prominent institutional economist, has also criticised the radical perspective, reasoning that

[W]hile the rules may be changed overnight, the informal norms usually change only gradually (North 1994:359)

Åslund responds to this critique by stating that this forgetfulness of institutions was indeed wrong and with inspiration from Hayek “all radical reformers were deeply committed to changing the old communist institutions” (Åslund 2002:100).

The above shows that the radical reformers share some common features with rational choice institutionalism. Åslund (2002) states that Hayek, previously noted within rational choice institutionalism, was the main source of inspiration for the radical reform approach. Hayek’s general assumption was that if there is a need for an institution in a society, it will be created (Hayek in Peters 1999). This is in line with the radical reform approach viewing contemporary factors as playing the major role for the formation of institutions. Both the radical reform approach and the rational choice theory reject the idea that history influence institutions. They rather hold that institutions result from functional needs in the society. Both use concepts such as *tabula rasa* and therefore hold that contemporary institution-building is independent of past institutions. Another common feature is how they view norms and values as attributes to institutions. Rational choice institutionalism argues that if effective institutions can be constructed and managed the appropriate values will follow shortly (Hayek in Peters 1999). Åslund shares the same view, stating that when the appropriate institutions are put into place, then the appropriate values will be adopted accordingly. He points out the need to build institutions that can promote simultaneously democracy and stability in regimes undergoing change, especially those going through the joint challenges of democratisation and transition towards market economy (Åslund 2002).

A final resemblance to be noted between the radical approach and rational choice institutionalism, is that of elites' perceptions of their relative power. The rational choice institutionalists regarded the elite's power perception as influencing institutional change or continuity. This through the elites' own perception of their power as increasing or decreasing with new situations (Hall and Taylor 1996). If the elite experienced a conceived loss in their relative power, a strengthening of the existing institutions retaining their power could be expected. This would lead to a continuation of institutions. Fear of such continuation formed one of the key ideas behind the radical reform approach (Balcerowicz 1995). To avoid that the previous elites would constrain transition by holding on to previous institutions, a radical break with these institutions was essential, they argued. If the previous institutions were cleared out of the way, new institutions could be built more easily.

### ***Gradual reform***

The gradual reform approach developed in the 1990s mainly in response to the radical reform strategy. While the radical reformers represented a more or less unified school of thought, gradualism has not been dominated by one single school. Instead they have been grouped together based on their opposition to radical reform (Holm-Hansen 2000). I have chosen to concentrate on the perspective on gradual transition as viewed by Joseph Stiglitz. This is because he has drawn upon the general aspects within the different groups of gradualism. Stiglitz's view has been prominent within the gradual camp and also have the most explicit theoretical perspective on the role of institutions. His view is therefore of particular interest for this thesis.

The gradualists tried to develop an alternative program of gradual economic reform to reach market economy. It was therefore the radical means by which to reach a market economy that the gradualists starkly opposed, not the end-goal. The opposition towards radical approach was based on what the gradualists regarded as an attempt to impose institutions in societies. The gradualists rejected the idea of an easy transfer of Western institutions to the East and criticised the radical approach for presenting "a utopia of social engineering" (Stiglitz 1999a:22). Stiglitz claimed that the efforts of installing western institutions in the post-socialist economies originated from a Western triumph left over from the Cold War. According to Stiglitz', the radical reformers had set themselves out to erase the "evil" institutions of communism and to socially engineer in their place the new, clean and pure textbook institutions of private property and economy (Stiglitz 1999a).

The proponents of gradual reforms argued that rather than erasing previous institutional structures in the transition to market economy, the transition should be carried out through incremental steps. The fear was that if a radical reform approach was carried out with its intended shocks, valuable social capital could be destroyed. Thus, they argued that to avoid such loss of valuable assets, the transformation towards a market economy had to start with already existing institutions and rather induce incremental changes to these. A process of trial and error was recommended favouring gradual instead of fast change. The idea was that institutions need to evolve over time and can not be legislated, decreed or in some other way be imposed from above (Gerner et al. 1995). Stiglitz has been one of the starkest proponents of such views arguing that

[I]f reformers simply destroy the old norms and constraints in order to “clean the slate” without the timeconsuming processes of reconstructing new norms, then the new legislated institutions may well not take hold (Stiglitz 1999a:7)

Stiglitz has explicitly referred to Robert Putnam, using Putnam’s argument that successful market economies cannot be understood in terms of narrow economic incentives. He deploys the role of norms, social institutions and trust as playing important roles and that such assets of an economy cannot be installed by a reform government. In line with this, Peter Murell (1992) has argued that transferring the formal political and economic rules of successful Western market economies to third world countries and Eastern European economies is not a sufficient precondition for good economic performance. Gerner, Hedlund and Sundström also rejected the idea of law-like processes of social development presupposed by the radical reformers to unfold in the post-socialist countries. Furthermore they pointed out that the countries, often grouped together as “post-socialist” differ significantly as to their readiness to incorporate and adapt “Western” institutions. Gerner drew comparisons to studies of Italy where the northern and southern regions have varied in their ability to make use of modern, capitalist institutions. Without explicitly referring to Putnam, Gerner makes use of concepts like social capital and civic society by pointing to elements such as trust, norms and networks (Holm-Hansen 2000).

The role of the state was another point of departure between the gradualists and the shock reformers. The gradualist reformers claimed there were certain areas of macro-economic management where central government-initiated action should be the norm. At the same time they accepted that there would be vast domains of institutional transformation well outside the reach of central government dictates. In short the gradualists advocated that the

state should inevitably play a large role in the transformation but most of all creating environments in which evolutionary processes could occur (Stiglitz 1999a).

The radical reformers have criticised the gradual reformers for naively supporting the rent-seeking actors in the transition economies. Åslund (2002) has accused the gradualists of ignoring that the communist state had been highly corrupt and that politically influential groups would benefit from the state of inconsistency that gradual reforms would enforce.

The link between the gradual approach and the approaches of historical and sociological institutionalism are many in the above presentation. The explicit emphasis on the importance of past institutions in the gradualist approach is in line with the historical institutionalist concept of path dependency. The argument of institutions evolving over time is essential for proponents of the gradual reform approach as well as for the historical institutionalists. Moreover is the thought that institutions change through incremental changes evident in both historical institutionalism and in the gradual reform approach.

The sociological institutionalist aspects of legitimacy and trust are also evident in the gradualist approach. Stiglitz' reference to Putnam by stating how trust is a necessary asset of every successful market economy, is an example of this. Stiglitz also touches upon the relation between common norms and legitimacy. The point is that norms form the common understanding in a society of what is appropriate, cannot be installed and that an installation of institutions most likely will fail due to its lack of legitimacy in the society. This point is can be traced back to the sociological institutionalism. The sociological approach regards common cognitive templates as constituting legitimacy as such common templates makes the norms of what is seen as appropriate or not in a society.

### ***Central Asia in transition***

After a decade of transition experiences in various countries, the results of the reforms are starting to prevail throughout the economic map. It is generally an accepted view that most post-Soviet states embarked on a transitional path close to the radical reform (Åslund 2002). The collapse of the Soviet economic structures based on a plan economy, together with substantial external financial help conditioned on radical structural changes, lead most of the leaders of previously plan economies to adhere to the reform programs advised by substantial financial institutions such as the World Bank and the IMF. Economists widely agree, however, that no such thing as a full fledged transitional approach has been possible to carry out. According to most observers, Kyrgyzstan embarked on a rapid transition path immediately after in the immediate aftermath of independence (Luong 2002). Åslund

(2002:66) has claimed that Kyrgyzstan was “politically ripe for a market economic transformation”. Uzbekistan is by Åslund grouped among the least reformed economies.

I will now give a brief introduction to the transition approaches as followed by Kyrgyzstan and Uzbekistan. The following section provides a general background to the empirical analysis that will be carried out in chapter 6. It moreover provides a background for the discussion related to transition strategies and water management institutions in chapter 7.

### ***Kyrgyzstan***

[I] think Kyrgyzstan is today recognised by the entire world community as an independent, sovereign state advancing along the path of truly democratic transformations and market reform  
(President Akaev 1993, quoted in Luong 2002)

Faced with independence Kyrgyzstan was one of the poorest and least developed successor states of the Soviet Union. Stripped from previous subsidies from Moscow, Kyrgyzstan found it financial difficult to proceed alone (ICG 2002). As the first country in the Central Asian region, Kyrgyzstan sought financial aid from the international community and joined the International Monetary Fund (IMF) in 1992. Self-proclaimed as “the island of democracy” in Central Asia, they opted for a closer relation to the west as to strengthen their relative power in the Central Asian region. International advisors therefore played an important role in the domestic politics throughout the 1990s (Weinthal 2002).

Following the advice from foreign financial experts, Kyrgyzstan adapted a radical reform program. The Kyrgyz government was consistently trying to follow all the recommendations that were given by international experts. Anders Åslund acted as the economic adviser to president Akaev and consequently exercised much influence. The government put all of its efforts into macroeconomic stabilisation (informant 1). Between 1991 and 1998 the government privatised all major segments of public assets. By mid-1992 Kyrgyzstan abolished most of its central planning institutions, it withdrew subsidies to major state-owned enterprises and simultaneously liberalised all consumer prices (Abozov 1999). Kyrgyzstan was also the first among the Central Asian Republics to leave the Russian Rouble zone and introduce its national currency (informant 4). Kyrgyzstan has, together with Kazakhstan, come the farthest regarding land reform and farm restructuring. Between 1991 and 1997 Kyrgyzstan privatised 90 % of agricultural land (Micklin 2000). The agricultural sector was restructures by splitting up state-run farms into smaller private farms (Gleason 2004).



However, the emphasis on trade development and liberalisation of markets, did not bring the expected economic benefits for the Kyrgyz economy. The efforts to reach macro-economic stabilisation led the country into severe economic crisis, as was the case with many other post-Soviet economies. By the end of the 1990s Kyrgyzstan had yet to produce stable rates of economic growth or experience any major positive social changes. The contraction of the Kyrgyz economy was much greater than that of neighbouring Uzbekistan, which had adopted a more gradual reform, and that of Kazakhstan which allowed for more state intervention (Abazov 1999). Nevertheless, Kyrgyzstan managed to achieve some of the economic goals initially targeted by foreign financial experts. The government succeeded in dismantling the central planning system, introduced institutions of private property and business, deregulated its economy and liberalised all prices.

### *Uzbekistan*

[The] republic has chosen its own path of development, which is based upon a gradual transition to the market economy  
(President Karimov 1993, quoted in Luong 2002)

Contrary to Kyrgyzstan, Uzbekistan rejected shock therapy and the advice of international financial institutions to carry out swift macro-economic changes. The independent government of Uzbekistan, headed by the authoritarian Islam Karimov, ignored the advice coming from foreign experts. The government concentrated its efforts on gradual reforms and focused on achieving changes at the microeconomic level (Abazov 1999). Luong (2002) describes the economic transition in Uzbekistan as a deliberate attempt to concentrate all economic control and activity in the central government. Gleason (2004:70) notes that the “government, economics and culture were subsumed in the drive to “recover” Uzbekistan’s heritage as the leading political force in the region”.

The gradual transition towards a market economy was directly supervised by the government. The central government maintained the sole control over privatisation in all spheres of the economy. This was paralleled by a tight control of the agricultural sector, including production and distribution. The cotton sector has in particular remained intact from the preceding Soviet system (Kotz 2002). The central government continued the Soviet practice of placing cotton under the control of state commodity boards. This implies that the state has monopoly on the cotton market. Prices are set artificially low for the government to purchase cotton which then is sold abroad for world market prices (Luong 2002).

Privatisation reforms have also been limited in Uzbekistan. Contrary to Kyrgyzstan where

most of the collectivised farms have been transformed into private farms, these have continued to exist in Uzbekistan now referred to as “cooperatives” (Kandiyoti 2004).

Due to the slow reform, outside observers expected poor results from the Uzbekistan economy. Although the numbers have been object of scrutiny, the Uzbek growth performance between 1992 and 2001 appeared to be the best out of the former Soviet republics (see appendix 4). The stabile growth rates have puzzled economists advocating radical change as the best means for pursuing growth. Stiglitz (1999b:4) also noted that Uzbekistan was “doing rather well” despite that this country had been castigated for its slowness.

Even though the loss in productivity has been less than in Kyrgyzstan, experts believe that Uzbekistan has only postponed the problem of structural economic changes and that many longstanding problems have yet to be addressed (Thurman 2001). Furthermore has the Uzbek growth rate given few social benefits to the majority of the population. The country has been characterised as a ticking bomb due to a lack of human rights and an increase in social unrest. The leadership of the country is constantly critique for a lack of democratically reforms and freedom of speech. A report from the International Crisis Group states that although on paper Uzbekistan looks prosperous, this growth has not been felt among the general population. Uzbekistan's growth is fuelled by high earnings from exporting cotton and gold, but the profits go to the Karimov regime, with minimum benefits to the average Uzbek (ICG 2004).

### ***Summary***

In this chapter I have discussed how scholars starkly disagreed concerning the reform processes of the post-Soviet countries in the 1990s. I have presented the debate of radical versus gradualist approach to post-socialist transition. The radical approach favoured a sudden break with past soviet practices and hence a building of complete new institutions. The gradualist approach strongly advocated a longer time frame and incremental institutional changes towards transition. I have further discussed how Kyrgyzstan and Uzbekistan embarked on different transitional paths towards a market economy. Kyrgyzstan followed the shock-therapy approach after advice by Western economist. Liberalisation and privatisation was carried out in a short time frame. Uzbekistan on the other side has preferred a gradualist reform, meaning that the state has kept extensive control and there has only been a limited degree of privatisation and liberalisation.

## *Chapter 6: The Soviet legacy in post-Soviet water management*

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### ***Introduction***

When looking at a map of Central Asia today, the most striking feature is the administrative geography compiling a myriad of tortuous borders, separating the post-Soviet states from one another. The borders drawn by Soviet planners in the 1920s have been object for a range of interpretations. Some experts on Central Asia argue that the borders were products of a Soviet divide and rule strategy. Others claim they were drawn in complex ways in order to keep the republics tied together by means of social control (Weinthal 2002). These views, however, has been contested by other scholars, arguing that the inter-tangledness simply must be understood as the most rational solution to a region thought to have great potential for the Soviet economy. The complexity has furthermore been explained as a Soviet attempt to create viable administrative units and that the borders simply reflected the ethnic boundaries already existing in the region (Slezkine 1994, Haugen 2003).

Whatever the purpose behind these borders might have been, they have nevertheless had immense impact on the policy and economy of the region. Rather paradoxically, the division of the Central Asian region led to a highly uneven distribution of the natural resources among the republics. The republics of Kyrgyzstan and Tajikistan got most of the water while Uzbekistan, Turkmenistan and Kazakhstan got most of the fossil resources such as oil, coal and gas. The division therefore led to a high degree of inter-dependence through a complex system of resource sharing. The nature of this extensive resource exchange has paved the way for the problem of concern in this thesis: the post-Soviet water management.

In this chapter I will discuss the regional water management situation in Kyrgyzstan and Uzbekistan and how it is still strongly influenced by the Soviet legacy. I will use the analytical perspectives within new institutionalism to see if these theoretical approaches can elucidate the enduring strength of the Soviet water management. By doing so, I seek to identify the role of Soviet institutional legacies in post-Soviet water management. The debate of structure versus agency will be revisited by discussing how structured-based and agency-based theoretical perspectives, can shed light on the institutional outcome of post-Soviet water management. The overall aim of this chapter is to discuss the main question of the thesis:

*How does the Soviet legacy continue to affect the institutional framework for regional water management in Kyrgyzstan and Uzbekistan?*

### ***6.1 The integrated legacy***

The most apparent legacy of Soviet water management in Central Asia today, is the cross-boundary infrastructure, visible in the physical geography comprising a web of irrigation canals, reservoirs and water regulation centres. Unlike the pre-Soviet irrigation systems, based on local institutional arrangements and tied to particular water sources, Soviet engineering linked different users across different drainage basins. By launching these massive development projects, Soviet planners engineered a highly integrated system with intra-basin and inter-basin water transfers (informant 2). The integrated physical infrastructure was, however, not problematic as long as the system worked *within* the borders of the Soviet Union. Domestically the system worked in its own logic and without it Central Asia would have been unable to produce 90% of the Soviet Union's cotton, a third of its fruit, a fourth of its vegetables and 40% of its rice (ICG 2002).

With independence, the Central Asian states inherited this web of infrastructure. The physical integrated system inevitably continued to exist in the new geo-political setting brought upon by independence. Consequently, the physical legacy of the Soviet water structures has formed the foundation of water management in the post-Soviet context. However, in the new independent setting, the reservoirs and dams in Kyrgyzstan, serving Uzbekistan's cotton production with water, now became the national property of the upstream country. This meant that Kyrgyzstan now got the legal rights to control the main bulk of the water infrastructure.

In this part I will use the approach of historical institutionalism to discuss how the structural-historical context of Kyrgyzstan and Uzbekistan has influenced the water management institutions in the region.

#### ***Regional specialisation***

The Soviet economic structures were based on regional specialisation. This meant a division of labour where the individual republics or regions were assigned the responsibility for one or another major economic input (Peachey 2004). Regional development in the Soviet Union was therefore based on strategic calculations in order to meet the national production goals.

This typical feature of the Soviet economy contributed to an uneven development of the Soviet regions (Luong 2002).

The role of the Central Asian republics, was to provide the agricultural basis for the Soviet economy, particularly cotton. Central Asia as a cotton-producing region had been the vision since the Russian colonial expansion in the second half of the 19<sup>th</sup> century. Even though cotton had previously been cultivated as a traditional crop, it was only with the extended irrigation engineering that cotton could be grown on a major scale. With Soviet investments in irrigation systems, cotton began to replace many of the traditional crops previously grown in the region. During the Soviet era, Central Asia became synonymous with cotton monoculture (Kappeler 2001). Although Central Asia produced the raw material, the processing of the cotton took place elsewhere, usually in Russia. As a consequence of the regional specialisation, other segments of the economy were sacrificed in order to sustain high cotton yields (Luong 2002).

According to Micklin (2000) Uzbekistan was Moscow's favourite out of the Central Asian republics due to its economic potential for an extensive cotton industry. Consequently investments in agriculture were concentrated here. Soviet investments in Kyrgyzstan were mainly related to water regulating infrastructure, such as dams, canals and reservoirs. An informant explained:

For the benefit of [the cotton output in] Uzbekistan and the other downstream republics, restrictions were imposed on our [Kyrgyz republic] irrigated agriculture  
(informant 2)

The philosophy behind the sequenced economy was to maximise production and ensure that the vast Soviet territory was serving its fullest potential for the gains of the national economy (Luong 2002). In order to manage the vastness of this economy, the system was based on centralised controlling plans. This was reflected in state controlling institutions such as the State Planning Committee, *Gosplan*.

### ***Water management***

The water resources in Kyrgyzstan played an important role in the regional specialisation scheme of Soviet Central Asia. Water-controlling institutions were established to strictly distribute water from the upstream republics to the downstream cotton fields (informant 2). The institutions controlling water management were, however, not established to meet regional or local needs, but the needs of the overall union (Micklin 2000). The structures of

water allocation were controlled by the Ministry of Land Reclamation and Water Resources, *Minvodkhoz*, which was located in Moscow. All decisions related to the various aspects of the water sector were directed from Moscow starting with *Gosplan* and the various affected government ministries that established production targets.

*Minvodkhoz* administrated the timetables and the amount of water allocated for irrigation between the republics [...] after reviewing the annual forecasts  
(informant 2)

During the 1980s Moscow sought to shift some of the decision-making to the republican ministries. This implied that local units coordinated and formulated plans for shared resources submitting them to the *Minvodkhoz* for approval. Soviet planners created two Basin Water Agencies (BWA) that were to control water allocation in Central Asia, one for the Amu Darya basin and one for the Syr Darya basin. Both were located in Uzbekistan. These were to control and monitor the flow of the rivers and allocate water to the different irrigation canals in the region (Wegerich 2004). Coordination was imperative to make the complex system work. One informant explained that

unlike the system of small scale irrigated agriculture that worked in the pre-Soviet period, where the mirab [local water manager] supervised water withdrawals, maintenance and clearing of the canals, the new large scale system required careful coordination among multiple users  
(informant 7)

The Soviet centralised institutions acted as the foremost hegemon in the distribution of the large common water resources in the Central Asia republics. Moscow also represented a stabilising force resolving potential internal conflict over water resources among the republics (Weinthal 2002).

The disintegration of the Soviet Union transformed administrative boundaries into national boundaries and integrated national water management approaches into trans-national ones (Wegerich 2004). With independence the Central Asian states hence inherited the previous system for water management with neither the authorities in Moscow to guide it, nor the financial resources to maintain it. An informant put it like this:

After independence the Central Asian states behaved like confused children having lost their authoritative father  
(informant 2)

Coordination had been essential for water management in the Soviet era. The Central Asia states therefore realised that they needed to establish institutional mechanisms to enhance cooperation in the management of interstate water resources (informant 2). In 1992 the new governments of the Central Asia states met in Almaty, Kazakhstan, to discuss the future schemes for water allocation in the region. By signing the agreement of “Cooperation in the Management, Utilisation and Protection of Water Resources of Interstate Sources” all five Central Asian governments agreed to

respect existing structures and principles of water allocation based on acting regulations for water resource allocation from interstate sources

(appendix 3)

This agreement also created the Interstate Commission on Water Coordination (ICWC). The creation of ICWC was made for the purpose of overseeing the regulations, efficient use and protection of interstate watercourses and bodies for the whole region. The ICWC directives moreover concerned the control of hydroelectric facilities (Peachey 2004). ICWC was given a similar role as *Minvodkhoz*, although on a much smaller scale. It was to regulate the annual withdrawal allocations based on estimates of water availability for the ensuing hydrological year (Micklin 2000). Corrections were to be made at the regular quarterly meetings or at specially convened sessions. Alongside the ICWC, the Scientific Information Centre (SIC) was established in order to train water officials and organise courses and round tables. The BWAs continued to operate and were placed under the ICWC functioning as executive bodies. ICWC was made responsible for setting out the water quotas while the BWAs were to work as monitors of these implementations. All these organs are today located in Uzbekistan (Wegerich 2004). Article 9 of the Almaty agreement shows that even though the hydro technical assets became the property of each territory with independence, they were transferred to the BWAs for temporary use (see appendix 3). The agreement signed was therefore in large a prolongation of the Soviet system. Uzbekistan, together with Kazakhstan, continued to receive the largest water quotas from the river of Syr Darya. Kyrgyzstan was given smaller quotas, reflecting its smaller population and low cotton production. Micklin (2000:44) notes that

As was the case under the Soviet system, the water sharing scheme is heavily tilted towards irrigation and the interests of the downstream states

### *The barter institution*

The continuation of similar structures for managing the water, was followed by a continuation of the same institutional arrangements for resource exchange as those existing in the Soviet time. As noted had the physical integration of the irrigation infrastructure and the uneven distribution of natural resources caused a high degree of economic interdependency among the republics (Luong 2002). To overcome this uneven distribution the Central Asian region was organised by complex barter deals. These served as an exchange of water and energy among the republics, tightly controlled and regulated by the *Minvodkhoz* in Moscow. Kyrgyzstan delivered water for irrigation to their downstream cotton field and in return Uzbekistan delivered fossil fuels for energy to Kyrgyzstan. The barter agreements were established and regulated according to the production targets which were to be met in the region. The prices for fossil fuels were kept at artificially low rates through heavy subsidies and contributed to a beneficial deal for both the upstream and downstream republics. As was the case with the water quotas, the Almaty agreement in 1992 also favoured a continuation of the Soviet barter agreement (ICG 2002).

Independence ruptured the very same economic structures upon which the barter deals were based. In the absence of a common controlling instance, both Kyrgyzstan and Uzbekistan have at various times broken the barter agreement, often causing serious problems for large numbers of the population. Uzbekistan introduced world prices for the gas that had previously been kept artificially low. Kyrgyzstan, depending on the gas for domestic energy, could not afford to pay. In order to meet the energy demand they increased electricity production at the Toktogul hydraulic complex during winter (informant 3). Farmers in Uzbekistan have experienced severe flooding in wintertime due to extensive water releases in Kyrgyzstan. Citizens in Kyrgyzstan have experienced longer periods without power due to Uzbekistan cutting the supply of gas (informant 1).

Modifications to the barter agreement were attempted introduced through a new framework agreement negotiated in 1998, often referred to as the Barter Agreement of 1998. This agreement showed some improvements regarding the interests of the upstream states. Among the improvements was the recognition of the need to compensate for the energy losses involved with the water storage. One informant explained:

The proposed compensations [...] was still in the form of equivalent energy sources[...] So, it was a further continuation of the barter agreement and payment for operation and maintenance has not been introduced. Also Kyrgyzstan still has to buy gas from Uzbekistan to meet domestic demand

(informant 9)



### ***A path dependent trajectory***

The theory of historical institutionalism offers a useful perspective to the enduring water management structures discussed above. Kyrgyzstan and Uzbekistan were part of a Soviet policy of regional specialisation. The development of an extensive cotton industry in Uzbekistan based on water withdrawals from Kyrgyzstan, led to an organisation of the region through highly complex and integrated economic structures. These structures were reflected in institutional arrangements such as the water quotas and the barter deals.

The concept of path dependency in historical institutionalism, can elucidate some important features of the institutional framework continuing to exist in the Central Asian water management. The idea behind path dependency is that policy choices in the past, will have continuing and determinate influence over institutions and policies in the future. This point is interesting when studying the economic structures of water management in post-Soviet Central Asia. The policy choices made by the Soviet regime have inevitably affected the policy choices of the leaders in Kyrgyzstan and Uzbekistan. The most obvious reason for this is the previously constructed irrigation system in the region, contributing to an interdependence between the upstream and downstream states. This is closely linked to the Soviet decision to make Central Asia its cotton cradle which implied an extensive reorganising of traditional agriculture. Interesting in this respect, is Lecour's point that once a country or a region has started down a track, the cost of reversal will be very high (Lecours 2005). This point seems to fit the Central Asian cotton monoculture very well. Through a constant intensifying of the cotton cultivation, only made possible by paralleled extensions of the irrigation systems, the Central Asian region became caught in a trajectory of cotton production. This can also be elucidated by what the historical institutionalists call a "cycle of increasing returns". According to Steinmo (2001) the probability of further steps down a given path, increases with each step taken. This is an observation that makes sense when studying regional specialisation and the economic integration in Central Asia. Through the cotton industry, the Central Asian region became object to a constant integration and interdependence. The region did in a sense get "locked" into structures based on the monocultivation of cotton. The cotton industry and the structures related to this, have proven difficult to reverse as the region became institutionalised through certain economic patterns. The production mechanisms, based on the sharing of the water resources were object to reinforcements and were established through an extensive period of time. With independence the cotton industry continued, calling for increasingly higher withdrawals of water. Centralised decisions regarding economic policy taken in the Soviet era have therefore

continued to impact the patterns of the post-Soviet water management. The institutional framework for water management in Kyrgyzstan and Uzbekistan can subsequently be said to prove the enduring strength of the Soviet system.

Historical institutionalism contributes to a sensitivity towards the historical context when studying policy outcomes. Hall (1986) as noted in chapter two, made extensive studies of the policy history of France and Great Britain as he believed this would provide a fundament for understanding the contemporary policies of these countries. Knowledge of the policy history of the Central Asian region is likewise essential to fully comprehend the policy choices carried out in post-Soviet time. A historical institutional approach permits a context-sensitive understanding of the Central Asian water management. The theory of historical institutionalism therefore offers an interesting analytical perspective for investigating the structural-historical context of Kyrgyzstan and Uzbekistan.

March and Olsen's (2005) perspective on historical efficiency sheds light on the continuation of the water schemes and barter deals. The barter agreement proved inefficient in the new geo-political context due to the conflicting interests in the exchanged resources involved. Nevertheless it has continued to exist with occasionally efforts of modifications. This is in line with March and Olsen's view that a path dependent trajectory does not necessarily have to be linear in nature. The idea was that institutions do not always adapt to the environment and that they not necessarily become more efficient over time. The matching of institutions take time, they argued, and can have multiple path dependent outcomes. The barter agreement as an institution, have yet to prove adaptable to the new water management context in Central Asia. Despite efforts of improvements, it is still far from being efficient. In this context, Steinmo's (2001) raises an interesting point, arguing that any modification to an institution appears to be highly contingent on the previous institutional structure, even if it is inefficient. The barter agreement can arguably be said to fit this description. The agreement is not working sufficiently, yet it is so heavily embedded in the Central Asian resource sharing that the cost of reversal is very high. Following the historical institutionalist argument, however, the barter agreement cannot be regarded as a robust institution as it offers only limited resolution. According to Pierson's (1996) evolutionist argument, the dysfunctional elements of the barter agreement can function as an opportunity for change. As noted, he views most institutional designs containing some unanswered or some dysfunctional elements, which again can generate a subsequent need for change. Through Pierson's view the remains of the Soviet policy is thus not without prospects for change.

The perspective of historical institutionalism also calls on ideas to explain institutions. Hall argued that the philosophy behind different economic systems also contribute to the formation of certain institutions. The philosophy behind the Soviet economic structures was based on an idea of regional specialisation with a centralised control function. This idea is reflected in the nature of the institutions developed around water management in the Central Asian region. The idea of a sequenced economy was evident in the institutions established to allocate inputs to the different regions, as was the case with the barter deals. The Central Asian region was subdued to an institutional arrangement where all decisions related to water was centralised and which handled the region as unified, each part owning a function. The idea of tight state control of the economic structures, was reflected in the centralised *Minvodkhoz*, which despite its distant geographical location worked as the controlling instance. This idea has persisted, albeit at a smaller geographical level due to the dissolution of the Soviet Union. The ICWC, continuing with the same structures as the *Minvodkhoz* can arguably be understood as reflecting an institutional development out of the idea of centralised control.

The historical approach points out that the formation of institutions will inevitably create “winners” and “losers” through asymmetrical power relations embedded in institutional structures. This is an interesting point shedding light on the water quotas scheme and the related barter deals. The water allocation scheme and the barter deals did not present issues of asymmetrical power relations as long as the scheme was part of the overarching Soviet resource scheme. Moscow served as the control centre, serving as the driving mechanism balancing the benefits (ICG 2002). When this centralised force disappeared, however, the asymmetrical power structures emerged through a highly uneven distribution of the water resources upon which both Kyrgyzstan and Uzbekistan were contingent. Independence represented a rupture to the previous structures. Nevertheless they continued to exist also in a new economic context, where Kyrgyzstan’s economy had to manage without subsidies from Moscow. With independence the real asymmetrical power was reflected in Uzbekistan’s immediate context that was more favourable than that of Kyrgyzstan. Hence, I argue that due to substantial agricultural development, Uzbekistan possessed a more advantageous initial position when faced with independence. This implies that despite the fact that Uzbekistan and Kyrgyzstan shared a common structural-historical context, the independent states, and their respective political elites, had different starting points when faced with independence.

### *Structure and agency revisited*

The historical institutionalist perspective on structure and agency is interesting in the Central Asian context. Historical institutionalists start from the premise that pre-existing social, economic and political conditions determine the conditions for change. They regard these factors as the structural foundation of a society, constraining the choice options available. In the case of Kyrgyzstan and Uzbekistan and their water related institutions, such a perspective makes sense. The structures inherited from the Soviet era, such as economic structures with its regional specialisation and barter agreements, had made the region interdependent in a range of spheres. These structures have constrained agency in terms of options available in post-Soviet time. The transitional context offered opportunities for change but was nevertheless constrained by the structural-historical context. The historical institutionalist approach does therefore elucidate the process of institutional continuity in water management in Central Asia through a structural approach model. Historical institutionalism also sheds light on how the path dependent structures inherited from the Soviet era have played a constraining role in shaping a new institutional framework for water management in the area. The approach gives useful insight by identifying the sources of continuity in the structural-historical context.

However, historical institutionalism does not prove sufficient to fully understand why continuity plays such a dominant role. Arguing that institutions continue to exist due to the nature of the previous institutions would suggest a rather deterministic causal link between the past and the present. The historical institutional approach consequently falls short when analysing the actual attempts for change in the institutional framework, such as the ones made by Kyrgyzstan to change the barter agreement in an effort to gain a more favourable position. In the following part, I argue that the theory of rational choice institutionalism offers a useful analytical perspective by elucidating the mechanisms behind the continuation of the Soviet water management.

## ***6.2 The legacy of an irrigation regime***

Given that independence and transition represented an exogenous rupture to the asymmetrical power relations embedded in the barter deals in the Central Asian region; and given that Kyrgyzstan gained owner rights over the water resources and the related infrastructure, it would be reasonable to argue that the relative bargaining position of Kyrgyzstan was altered. This in particular as Uzbekistan was highly dependent on water withdraws from Kyrgyzstan. Still, a continuation of the Soviet water allocation scheme and barter deals favouring downstream Uzbekistan, have been the case.

The following part discusses how political motivation can be understood as shaping institutional outcomes in the water management sector in Kyrgyzstan and Uzbekistan. I will make use of the rational choice approach to discuss how these motivations have formed the political elites' bargaining strategies when negotiated over water allocations.

### ***Irrigation regime versus energy regime***

In a geography book for the Kyrgyz republic written in 1978, the following words of Lenin are quoted:

Irrigation is above all necessary and important for the recreation and reviving of this region [Central Asia]. It will help to bury the past and to enforce the entrance to socialism (Kartavo and Sereda 1978:75, my translation)

These few lines sum up the major plans that the Soviet leadership had in mind for the Central Asian region. Irrigation became the heart of this system and in 1987 there were 967 irrigations systems, 915 hydraulic structures and 260 dams in Central Asia. In Uzbekistan alone there were about 170, 000 km of canals, irrigating 4,2 million hectares of land (IMF 1992). The Central Asian region was consequently ruled in accordance to what can best be described as an irrigation regime.

Independence ruptured the controlling base for the resource-sharing scheme, leaving the new independent states to manage on their own. The immediate situation stranded at a status quo. Coordination of water allocation at a regional level was a new concept for the Central Asian states since all previous directions had come from Moscow (Peachey 2004). The uncertainty in this situation was reflected in the Almaty agreement signed in 1992. Sievers (2002) argues that in the immediate aftermath of independence, it was in the interest of all the Central Asian leaders to continue with the Soviet arrangements as to avoid short-term dislocations.

However, in close correspondence with foreign financial advice, the national interest of Kyrgyzstan soon started to crystallise. An increasing degree of discontent with the existing water quotas and barter agreement, clearly favouring Uzbekistan, evolved throughout the 1990s (Micklin 2000). In theory, independence opened up for a possibility to change the irrigation regime (high summer discharges and low winter discharges) to what would be a more economic and political favourable energy regime (low summer discharges and high winter discharges) for Kyrgyzstan. Such change would enable a more favourable economic and political condition for Kyrgyzstan as it would ease their dependence on fossil fuels from downstream Uzbekistan. In practice, however, Kyrgyzstan on their own had few options to change this regime as they financially had no capability to invest further in the power-generating infrastructure (ICG 2002). Nevertheless, by controlling Toktogul, the largest artificial reservoir in Central Asia and of great importance for serving irrigation to downstream Uzbekistan, Kyrgyzstan possessed an important bargaining card in water negotiations (Sievers 2002).

The bargaining strategy of Kyrgyzstan was based on two elements: By controlling the Toktogul, vital for serving Uzbekistan with water for irrigation, Kyrgyzstan made attempts to convince the downstream neighbour to share the financial expenses of two more hydro electric stations, Karambata 1 and 2, to be located above the Toktogul (informant 9). The building of such hydro electric complex would allow Kyrgyzstan to produce energy in wintertime for domestic consume and potentially exports to China and Pakistan (ICG 2002). Kyrgyzstan argued that this would also benefit Uzbekistan as water running from the upstream complexes would be collected in Toktogul for irrigation in summer time. By building Karambata 1 and 2, more water would be available for irrigation as water from Toktogul would serve irrigation only. Second, while Moscow had provided subsidies for maintenance and operation of the water infrastructure, these benefits disappeared with independence. Consequently, Kyrgyzstan was left with the unilateral responsibility for the operation and maintenance expenses of Toktogul and the related infrastructure. Kyrgyzstan demanded that Uzbekistan should share the expenses of operations and maintenance of Toktogul as they pointed to the fact that Uzbekistan benefited more from Toktogul through irrigation than did Kyrgyzstan (informant 9).

The director of Environmental Consulting (EnCo) in Kyrgyzstan was clear in his statement when he claimed that

Uzbekistan thinks that God gave them the water and that because of that it should be for free [...] But what about their gas? [H]ow come, that the gas is nobody's but Uzbekistan's, but the water in Kyrgyzstan belongs to all the Central Asian states? [...]Uzbekistan should pay if they want to maintain an irrigation regime  
(informant 3)

Uzbekistan, however, has strongly opposed the Kyrgyz suggestions. A potential change towards a power regime that would make Kyrgyzstan self sufficient in energy, would weaken Uzbekistan's bargaining position. In an energy regime Kyrgyzstan would no longer be dependent on the latter for fossil fuels. Uzbekistan feared that by losing their grip on Kyrgyzstan, Kyrgyzstan would gain more control over its water resource which again would jeopardise the very bargaining position to the political leaders of Uzbekistan. If Kyrgyzstan became self-sufficient in energy, they would no longer possess the political pressure on Kyrgyzstan (Fradchuk 2006).

The issue of water management has been highly politicised among the upstream and downstream countries (Karaev 2005). In 2001 Kyrgyzstan passed a new water law, causing much debate among the leaders of the neighbouring states. The law framed that water has its own economic value and that water resources created on Kyrgyz territory are the property of the country. Thereby the neighbouring countries should hereafter pay for the water. In an interview done by the International Crisis Group, a senior water analyst from Uzbekistan reacted on the question of the Kyrgyz water law by asking

Why should we pay? Because they got more snow than we do?  
(quoted in ICG 2002:16)

Kyrgyzstan has been accused of using its control over Toktogul as means of political pressure. Holding back water in summer time and increased releases in wintertime has caused severe damage to Uzbek irrigated land (Karaev 2005). Director of the EnCo commented on the water-energy question and the interest of Kyrgyzstan to switch to an energy regime:

It is true that in post-Soviet times Kyrgyzstan had to increase the generation of electric power, particularly in winter months. But Kyrgyzstan is not to blame for this. The cut offs in gas in the cold season [...]are the only reason why Kyrgyzstan switches to power generating regime and there is nothing strange about it!  
(informant 3)

The sensitivity of the issue is also evident in a letter from the former Communist Party's first secretary of the Kyrgyz republic, Turdakun Usubaliev, to the prime minister of Uzbekistan, Utkir Sultanov. The letter is a reply to Sultanov's critique of the new Kyrgyz water law.

Usubaliev writes:

Uzbekistan continues to use the Toktogul reservoir for irrigation purposes without paying a single penny therefore. On the contrary they trade gas, coal and mazut for dollars charging the highest rates. However, Kyrgyzstan cannot afford to buy them at such high prices for shortage of currency facilities. What is more important is that Uzbekistan and Kazakhstan use gas and coal as an instrument of political pressure  
(Usubaliev 2001:34)

In 1996 a report suggested that Uzbekistan would be willing to use military force to seize the Toktogul dam in Kyrgyzstan if the water security was threatened. ICG (2002) interpret such threats also to include considerations of military action to protect its water supply.

### ***Political motivation***

Uzbekistan's fear of a shift towards a hydropower regime must be seen in close relation to the cotton industry. Cotton forms the very corner stone of the Uzbek economy. A Kyrgyz attempt to become self-sufficient in energy and an increased Kyrgyz control over water, posed a threat to the water intensive cotton cultivation in Uzbekistan. A reduction in the cotton industry would not only mean a potential loss of foreign revenue, it would also mean a weakening of the domestic means of political and social control. A restructuring of the cotton industry would mean that the very structures that the Uzbek economy is based upon would erode. Weinthal (2002) argues that the Uzbek elite had a stake in perpetuating the system of cotton monoculture as they gained access to special privileges not available to the majority of the population, primarily better opportunities for social and political mobility.

The Soviet system was in large an elite based system. Moscow found local leaders in each republic with whom they trusted loyalty. The strategy of co-opting local elites into the Soviet power structures by giving this group privileges, enabled the Soviet centre to keep control also in the distant regions (Kappeler 2001). Regional leaders in Central Asia were therefore empowered under the Soviet system, wherein they served a crucial role in overseeing the production of raw materials in exchange for material benefits or political mobility. Luong (2003) has noted that state actors in Central Asia exercise authority as they have managed to either maintain or expand their power base after independence through their



privileged access to scarce resources and control over distribution networks. Luong further notes that

[L]eaders were able to preserve these networks after independence in Turkmenistan and Uzbekistan, for example, because the cotton sector continued to play the dominant role in the state's economy (Luong 2003:273)

Peachey (2004) supports this view arguing that the Uzbek elites and authorities stalled some of the efforts to diversify the cotton industry because they had a vested interest in maintaining the Soviet economic structures. In line with this Micklin (2000) argues that even though the dissolution of the Soviet Union disrupted previous patterns of power, the legacy of cotton monoculture enabled the national and regional elites to maintain a strong hold on state power and social control in the Aral Sea basin. Consequently, if the irrigation regime was obstructed this would mean that the foundation of the cotton industry would be eroded along with the bases for social and political control. To avoid this Uzbekistan has sought strategies to retain status quo (Kandiyoti 2004).

### ***Water nomenklatura***

To maintain the status quo, the Uzbek elite had an important bargaining card in the water nomenklatura that had developed in Uzbekistan during the Soviet era. A majority of the formal water institutions had been located to Uzbekistan. The majority of the interregional water institutions also continued to be situated in Uzbekistan in post-Soviet time, contributing to a concentration of water related skills by Uzbeks or Russians living in Uzbekistan. Micklin (2000) has pointed out that since water related institutions like the Central Asian Scientific Research Institute for Irrigation (SANIRII) produced and developed most of the information and data concerning the water system and irrigation use, the research related to water issues was rarely questioned by water officials from the other Central Asian republics. Weinthal (2002) points out that even when SANIRII's influence began to decline at the national level, former leading scientists and engineers there guaranteed themselves a permanent position in the new water institutions that was built through the creation of the Scientific Information Centre (SIC). The rejection of major changes to the water management structures has by several experts been ascribed to the continuation of a Central Asian water nomenklatura, descending from Soviet time. One informant explained that

[T]he management of the ICWC has to be changed; they have been there too long (informant 6)

ICG (2002) adhere to this, arguing that part of the water management problem in Central Asia since independence has been the domination of water structures by a small group of Soviet-era officials, seldom open to new ideas or alternative opinions.

Thus, Uzbekistan had every means to dominate the water bargaining situation due to the desire of both the elite and the water nomenklatura (sometimes overlapping one another) to retain their power and due to the intellectual capital in water issues that was concentrated here.

### *Strategic Cooperation?*

Weinthal (2002) argues that whereas the conventional theoretical literature on interstate cooperation and the empirical evidence from other international water basins suggested that these newly independent states should have been concerned first and foremost with sovereignty-enhancing behaviour and consolidating their independence, the Central Asian successor states actually coordinated their water policies in the Aral Sea basin immediately after independence. This also seemed to be a positive sign in the immediate aftermath of independence. Throughout the 1990s however, the national interests to the countries started to prevail reflected in the above-mentioned disputes over the water allocations and the related barter deals. Supported by the international community numerous negotiations over a new water allocations scheme have aimed for embracing both upstream and downstream interests. By 1994 as many as 300 agreements concerning the Aral Sea basin had been signed (Peachey 2004).

The Barter Agreement of 1998 was signed by representatives of the Central Asian states agreeing in principle to the form and extent of interstate exchanges of fuel and water resources. A focal area of the agreement was the notion of compensation arrangements for wintertime water storage and summer releases from the Toktogul Reservoir (informant 9). Sievers (2002:373) points out that this agreement is made on an annual basis, leading to “a process that has encouraged strategic behaviour”. An informant explained that this agreement worked for a while, but the downstream countries soon recognized that gains could be made through the annual character of the agreement. Commitments to provide winter fuel to Kyrgyzstan would depend on the annual need for water from Toktogul:

In rainy years, when there is enough water from sources downstream of the reservoir to meet irrigation needs, Uzbekistan is not showing up to the meetings

(informant 6)

Uzbekistan was consequently able to minimize its irrigation-related obligations to Kyrgyzstan. Thus, the cooperation pointed out by Weinthal, might prove to be based on strategic moves. An indication of this is evident in the Barter Agreement mentioned above. Karaev (2005) points out this agreement was primarily driven by Uzbekistan but that they chose only to invite Kazakhstan and Kyrgyzstan, leaving out Tajikistan from the negotiations. Karaev argues that this was a strategic move from Uzbekistan, expecting that it would be harder to come to an agreement with two water rich states present at the table and that Tajikistan would comply with an agreement when Kyrgyzstan had joined first. Sievers (2002:397) concludes the issue of regional coordination stating that

The good news is that ten years later vocally repudiate harmful orientations of the USSR, embrace multilateral environmental conventions and have taken some strong steps towards resolving some longstanding water controversies. [...] The bad news is that behind this public face of reform, today's water management in Central Asia is Soviet business as usual

### ***Bargaining strategy***

Based on the discussion above, it is quite evident that an irrigation regime has continued to exist in the Central Asian region. Moreover, the water allocation scheme continues to favour the downstream cotton-producing Uzbekistan. However, Kyrgyzstan has becoming increasingly aware of the potential for hydro-electricity production and has consequently sought to shift the irrigation regime towards an energy regime.

The view of bargaining strategies in rational choice institutionalism, offers a useful insight to processes regarding irrigation versus energy regime between Kyrgyzstan and Uzbekistan. Rational choice institutionalists view institutions as being formed in the same ways as contracts are negotiated. This perspective can throw light on the process where the elites in both Kyrgyzstan and Uzbekistan have negotiated, using different bargaining strategies when shaping the water management institutions. Independence offered a new context in which these strategies could be carried out as previous power asymmetries now were challenged. As the existing water management institutions already favoured Uzbekistan, the political elite here opted for a strategy to retain these institutions as to maintain status quo. Kyrgyzstan on the other hand, opted for changing the previous institutional arrangements, as these did not provide the benefits in the new independent context. Kyrgyzstan sought to establish institutional arrangements based on an energy regime through payment demands and by suggesting further investments in hydro electricity. Both

Kyrgyzstan and Uzbekistan therefore chose approaches based on their own preferences and strategic calculus.

The bargaining strategies of the respective countries were contradictory as independence opened for changes in the relative power for the parties involved. This can be elucidated through Luong's rational choice perspective of elites' power perceptions. Kyrgyzstan's efforts to change the irrigation regime to a more favourable power regime, represented a threat to the Uzbek elite. Particular worrying was Kyrgyzstan's national rights to control Toktogul. The elite in Uzbekistan had established their fundamentals of domestic power through the cotton industry. These power structures were conditioned by a continuation of an irrigation regime now challenged by Kyrgyzstan. Arguably the Uzbek elite perceived their relative power in the water management issue to be decreasing with independence by Kyrgyzstan's altered position. The Uzbek elite hence chose bargaining strategies that they thought would retain as much of the distributional advantages accorded to them by the Soviet institutions (Luong 2002). The bargaining strategy was also based on the assumption of how Kyrgyzstan would behave, i.e. try to gain more control over its own water resources. A continuation of the barter agreement would therefore mean a higher degree of predictability over how Kyrgyzstan would behave. The perception of decreased power therefore led to a strategy of institutional continuation.

On the contrary the Kyrgyz elite's perception of power in the water management issue was increasing with independence. To further increase this power they opted for new water institutions and arrangements that would give further control over own water resources. Motivated by the potential for self-sufficiency in energy and the possibility for additional energy exports, their bargaining strategy was based on what they considered as benefiting their national economy in the long run. A desire to become more political independent from Uzbekistan was also motivation behind their efforts to change the institutional framework. The elite's perception of increased relative power therefore led to an institutional innovation strategy. Luong (2003:271) has called these bargaining strategies for

[T]he interaction between elites who are competing over the authority to create the structural framework through which policies are made and enforced

Such processes would hence be in line with the rational choice institutionalism that actors may realise that their goals can best be achieved through institutional arrangements. Sened's point within rational choice institutionalism makes an interesting contribution. Sened argued that institutions are shaped from the desire of one or more individuals to impose their

will on others and that those individuals must have the capability to manipulate the political structures (Sened in Peters 1999). The rational choice approach interprets institutions as mechanisms for channelling and constraining behaviour. This point is interesting taken into consideration that the water nomenklatura evolving in the Soviet era, were mainly based in Uzbekistan. The water nomenklatura and the information they possessed, gave Uzbekistan an advantage in the bargaining over water resources. The intellectual competence in water issues can most arguably be said to have gained Uzbekistan when bargaining over water allocation.

The framework agreement signed in 1998 committed the states to coordinate an exchange of water and fossils fuels through barter deals. Previous arrangements had proven difficult to coordinate due to opposing national interests. Nevertheless, both Kyrgyzstan and Uzbekistan continued to be dependent on each other. Rational choice institutionalism views institutional outcomes as a result of actors realising that their goals can best be achieved through institutional action. Through such a view the Barter Agreement of 1998 can be understood as an effort to stabilise the barter agreement making it more predictable and more efficient for the parties involved. Both upstream and downstream states agreed to the modified conditions on the new barter agreement. By agreeing to compensate for the water storage cost at Toktogul, Uzbekistan partially adhered to the demands of Kyrgyzstan. Likewise Kyrgyzstan agreed to adhere to Uzbekistan's demand of limit winter releases from the Toktogul reservoir. Through the perspective of rational choice institutionalism the 1998 Agreement can be said to have been based on a bounded rationality. The parties realised that their goals could be achieved most strategically through institutional action and were therefore willing to sacrifice some latitude in order to receive benefits. However, the Barter Agreement has remained in large on paper and has yet to prove efficient. Given that the rational choice institutionalism consider institutions to exist or endure because they promote positive or collective beneficial outcomes, such as efficiency or cooperation, it seems that this approach fail to account for the actual duration of the inefficient barter institution. The barter deals have long failed to ensure the commitments of the members or the enforcements of the mechanisms behind this institution.

### ***Structure and agency revisited***

The rational choice approach offers an agency-oriented explanation why institutional continuity occurred in the water institutions in post-Soviet Central Asia. It can provide useful insight as to how political motivation based on utility maximisation has shaped the

bargaining strategies of Uzbekistan and Kyrgyzstan respectively. The rational choice theory can hence contribute to an understanding of how some institutions continue due to preferences of agency, i.e. a privileged elite and the water nomenklatura. In the case of the continuity of water management in Central Asia, the approach contributes to an understanding of why bargaining strategies were chosen so as to maintain power structures and that these were driven by preferences of certain actors to remain status quo. Nevertheless, the rational choice approach pays little attention to the role of past structures. The theory is, as pointed out in chapter 3, based on the assumption of *tabula rasa*. To understand why a continuation of the water management institutions has prevailed in Central Asia, however, it is essential to acknowledge the importance of the cotton industry. The cotton industry has created structures of social and political control in Uzbekistan which the Uzbek elite has managed to maintain. The very structures of this system have constrained efforts to change the water management institutions to fit the independent context. It is also the structures that have constrained the bargaining position of Kyrgyzstan. Thus, by ignoring the structural-historical context, the rational approach does not take into consideration that the pre-existing institutions had established asymmetrical power relations. The rational choice theory therefore fails to include how these bargaining strategies were based on asymmetrical power relations inherited from the previous institutions. Hence, they fail to see the broader institutional setting in which these bargaining strategies are carried out.

Arguing that institutions have continued to exist in Central Asian water management due to the Uzbek elite's perceptions that their strategies will lead to efficiency, would also fail to actually take into account that these institutions have *not* been efficient. Moreover, it fails to take into account that efficiency might be perceived differently by actors. Even though Uzbekistan has a stronger bargaining position than Kyrgyzstan and calls for a continuation of the Soviet institutions, this has not curbed the discontent of the latter. The view of what is seen as legitimate and appropriate practices in the geo-political context is therefore highly divergent between the upstream and the downstream states. This I will discuss more closely in the next chapter.

### ***6.3 The legacy of culture – an opportunity for change?***

Resource sharing laid the fundamentals for the Soviet economic system in Central Asia. The system was moreover based on centralised management, hierarchical decision-making and a socialist ideology that controlled most spheres of social life.

In the following part I will discuss how the Soviet water management institutions have proved an enduring strength in the post-Soviet context. By linking the regional water management structures to structures at local level I seek to elucidate how the Soviet system pervaded the water institutions at all levels. This I hold, is contributing to enhancing the water management problems in Central Asia today and sheds light on institutional continuity. I will also discuss how the institutional framework in which water management is carried out, might well be digging its own grave by continuing to rely on the principals of the Soviet structures. I will relate this to the sociological approach of new institutionalism and in particular to their concepts of cultural environment, trust and legitimacy.

#### ***Vertical management structures***

The nature of the Soviet water management allowed little initiatives to come from the republican level. All decisions related to water allocations were made in Moscow. Local water administrators, not to mention the farmers, were rarely consulted (Thurman 2001). The logic behind the system was that decisions were supposed to slowly filter from state, republic and region down through to the collectivised farms. Even though the *kolkhozy* and *sovkhozy* would submit its overall plan to the local party administration for approval, the individual farmers themselves were completely disassociated from decision making (Micklin 2000). Rather than being owners or managers of the land the peasantry was simply employees executing the state economic plan. The gap between the top and bottom level had implications both ways. The *Minvodkhoz* and the local water administration possessed limited means to monitor the efficiency of use at the farm level. An informant explained that:

The water was distributed for free. No water gauges or other water regulating mechanisms offered means of controlling the water use of each individual  
(informant 5 )

A widespread view among the local farmers I talked with in the Kyrgyz part of the Ferghana Valley was that they had little or no influence on the water distribution during the Soviet era. I also found that many of the farmers when asked explicitly who had been in charge of the

water distribution during the Soviet era at the republican, region and farm level were unable to answer. This I hold as an indication of the extent to which the Soviet system was hierarchal. The peasantry had limited or no access to information to what was going on at higher level. Nevertheless, throughout talks with farmers I was constantly reminded that “there were never any problems during Soviet time” and how “water was for free and everyone had enough water”. A common view among the farmers I talked to was that “everything was better in the Soviet Union” and I was repeatedly explained how well functioning everything was before, compared to now. A farmer from Bunjun village, in the Batken region in Kyrgyzstan explained that

[M]oney is a big problem today. We used to get everything for free and canals were repaired when they had gone leak [...] now there is no one to repair the canals and wells. [W]e even have to pay for water!

(farmer, Bunjun village)

The disconnection of the local and central level is evident in several ways also in post-Soviet Kyrgyzstan and Uzbekistan. Head of the agriculture department of a foreign donor organisation in the Batken region, claimed that the most evident legacy from the Soviet Union is what he chose to call apathy among the Central Asian peasantry. By comparing Kyrgyz farmers with peasants from Afghanistan, close in geography, he claimed that

While the Afghan farmers are used to manage problems on their own, the Kyrgyz got used to that everything was fixed for them [...] Today, no one feels either responsible or capable of making decisions

(informant 8)

In line with this Luong argues that the weakness of societal forces vis-à-vis the state in post-Soviet Central Asia best can be understood as

[T]he result of the degree to which these Soviet legacies [top down management] have persisted. Central Asia societies not only remain dependent on the state for their basic needs, they continue to believe that the state’s primary role is to provide for them (Luong 2003:274).

The legacy of top-down management was also confirmed through talks with farmers in the Kyrgyz Ferghana Valley. A majority of the peasants found it difficult to answer who were in charge of the water distribution also today. When discussed in groups, the question of water authority was object to a range of different opinions and often produced different answers from members of the same village. What is right or wrong is rather irrelevant. The confusion



around the very question, however, might indicate that not much has changed since the vertical management structures of the Soviet Union.

The above indicates that the hierarchical Soviet system and the ideology it was embedded in influenced the way people conceived their possibilities for action in the Soviet Union. It resulted in a detachment of the people and the structures they were subdued (Luong 2003). The controlling force in the institutional framework gave little room for initiatives coming from republican let alone the local level. When, upon independence, water management was left to the republicans to solve, this produced a completely new situation for their leaders. During the first phase of re-negotiation institutions in Central Asia, the leaders worked within the old structures as few other options seemed plausible. Weinthal (2002:124) explains the continuation as caused by

[T]he shared fears of what the future would hold in the absence of Moscow created the enabling conditions for Central Asian states to prefer inertia to change in 1992

Micklin (2000) notes that the irrigation systems in all the former Soviet republics in Central Asia still reflect their Soviet origin. He further argues that the institutions responsible for water allocations are all centralised and hierarchical.

As in Soviet times these systems are run from the top down. Decisions about water allocations and deliveries are made in the central office and then communicated to the oblast' [region] branches and from there to the rayon [district] organisations which arrange the final supply to the consumers

(Micklin 2000:62)

Micklin further notes that these systems were designed for a planned economy where the basic agricultural and water management decisions were in the hands of central planning officials. Thus he argues that since independence, as the Central Asian republics are moving towards more market oriented economies, these systems suffer from a number of major difficulties.

### ***Society of distrust***

Several studies have been carried on the effects that the authorities system has had on the social capital and level of trust in the Soviet society. Mearns (1996) describes Central Asian as a society that has gone through a process of "erosion of trust". He further argues that

Collectives that are self-governing institutions for effective natural resource management in agriculture are fundamentally different from the Soviet experiment of hierarchically controlled agriculture (Mearns 1996:2)

Rather than being based on social capital such as trust, water management in Soviet Central Asia was based on an extensive control from state down to farm level. Mearns further argues that the very dilemma facing Central Asia in the new independent context is that social capital is an essential ingredient when carrying out reforms. He points out trust as a precondition for reforming institutions related to resource sharing and that in the case of Central Asia “it may be lacking precisely where it is most needed” (Mearns 1996:2).

The lack of trust in water management can be illustrated by an example from local level: A farmer I talked to from the Kyrgyz enclave of Barak in Uzbekistan, explained that his village, being located at the far end of the local irrigation canal, was constantly running short of water. The village experienced how farmers from settlements further upstream would disconnect the canal, leading all the water to their own fields. As a consequence, no water was left running for the villages further down the canal. This problem is also noted in Thurman (2001) where he describes how upstream communities take water that is earmarked for allocation schemes for those downstream. The lack of social capital at local level poses a serious problem for water management in post-Soviet Central Asia. What makes this example from local level interesting in the regional water management context, is that it reflects the extent to which the society lacks trust. Mearns (1996) suggests that social capital is the very precondition for successful political and economical reforms. Moreover he argues that social capital such assets have to come from the very local level. He further notes that

[R]eforms in post-Soviet Central Asia will fail to meet the objectives of [...]sustainable management of natural resources unless institutions at all levels of society relax the grip of power and control and instead foster trust and reciprocity (Mearns1996:25)

The lack of trust at the local level reflects the extent to which the society in general lacks social capital. Nevertheless is the lack of trust at the *republican* level, the real challenge for coming to terms with the water management problems in Central Asia today. A widespread assumption among my informants was that a lack of trust among the political leaders of Kyrgyzstan and Uzbekistan was the main reason for the inefficient water management of the region today. One informant explained that negotiations of the water allocation were reduced to merely the political will of the political leadership (informant 6). Another informant chose

to call it “an inexplicable political game at the highest level” (informant 10). Wegerich supports this stating that

[W]ater management agreements between the riparian states became dependent on the “will” of the upstream and the downstream users

(Wegerich 2004:338)

Wegerich (2004) points out that the main purpose of ICWC is to enable collective decision-making on water related questions and the implementation of these decisions. These decisions must be unanimous, although each state has the right to veto. Because of this right to veto, ICWC has been unable to address complaints from Kyrgyzstan regarding compensation for operating the reservoirs for the benefit of the downstream states. Hence, water related decisions are reduced to a matter of “political will” among the states. The localisation of the ICWC and its executive bodies of the BWAs, all situated in Uzbekistan, has also raised concerns from upstream Kyrgyzstan. O’Hara argues that the BWAs

Are not recognised by national legislatures and therefore lack legitimacy and authority  
(quoted in Wegerich 2004:339)

The director of the Institute of Water Problems and Hydroelectric Power at the National Science Academy of Kyrgyzstan, confirmed this unsatisfactory position for Kyrgyzstan and argued that the real power of institutions like ICWC lose their hold when they, by the upstream countries, are considered pro Uzbek. When asked about the role of the BWAs the swiftly reply was that

[T]hese [the BWAs] too are only concerned with Uzbek interests  
(informant 2)

A widespread view among the Kyrgyz informants was that no changes would be for the better “unless there is a change in the Uzbek leadership”. Statements like this clearly show a lack of political trust in Uzbekistan from the Kyrgyz side. However, this distrust goes both ways as Kyrgyz officials are accused for undermining the work of the water regulating institutions. In an interview done by the International Crisis Group an informant noted that

[A]s the Kyrgyz Ministry of energy regulates Toktogul water reservoir by itself what is there then left for the BWAs to do?  
(ICG 2002:9)

At the heart of the problem is the fact that the upstream countries do not accept the terms of these institutions. Hence it is difficult for these institutions to work as multilateral political institutions (Wegerich 2004).

### *Legitimacy*

Despite the nature of the vertical and top-down managed water institutions and the centralised system leaving little room for individual activity, the Soviet system nevertheless, seemed to have legitimacy. This is also evident in a letter from the former Communist Party first secretary of the Kyrgyz republic, Turdakun Usubaliev to the prime minister of Uzbekistan, Utkir Sultanov, where he comments on the resource sharing in Soviet times:

It was a reasonable and wise principle of inter-republican economic cooperation which met interests of all neighbouring republics (Usubaliev 2001)

Water management was run through well-funded departments at republic, province and district level. To a large extent these managed to fulfil the role distributing the resources among the republics (Thurman 2001). Thurman argues that the vision of this “golden era” of Soviet management can be scrutinised and ignores some unpleasant realities of the nature of this system. This being said, however, it is a widespread assumption among experts that the Soviet system managed to attain legitimacy through its resource-sharing scheme, both at a republican level and among farmers. Weinthal (2002:96) argues that

Although this [the hierarchical water management system] was a situation in which the hegemony (Moscow) was both coercive and exploitative, it also supplied a public good in the form of stability via an incredible elaborated patronage system

This patronage system worked as the link between the republics and the centre. The regional water nomenklatura would submit information on local conditions, thereby notifying the decision-makers of potential for increases in cotton production through expansions and improvements of the irrigation infrastructure. Through such information *Minvodkhoz* also mitigated potential conflicts among the republics over water-sharing through the provision of subsidies and transfers in the form of huge infrastructure projects (Weinthal 2002). Luong (2003: 280) also concludes that the Soviet Union’s relative success was dependent on a combination of infrastructural and coercive power but

[A]lso on a certain degree of legitimacy across a diverse population based on a broad social contract

The legitimacy of the system of resource-sharing was, however, ruptured with independence. The authoritative force, making sure the allocations scheme was followed disappeared along with the subsidies. When this controlling function, the fundamentals for its legitimacy also disappeared. Moreover, the early arrangements for water and barter deals made in the immediate independent context ceased to function when Uzbekistan started to charge for the gas supplies to Kyrgyzstan. Luong (2003) notes that as the social benefits of the Soviet Union eroded state power today relies entirely on its infrastructural and coercive capabilities and how Central Asian leaders have sought to maintain their control over resource distribution networks and to limit democratisation.

The loss of legitimacy of the resource allocation scheme must, at least in Kyrgyzstan's case, be understood in close relation to the role of the international community. Foreign influence has not been without significance for the perception of legitimacy in the Central Asian water management. Weinthal argues that by opening up for extensive foreign environmental advice Central Asia has been connected to a global environmental culture and consequently been "environmentalised". One of the main ways in which the international organisations have been building institutional capacity, is through the diffusion of norms and values (Weinthal 2005). Kyrgyzstan showed particular open to foreign assistance as their own means to manage the economy were few. The international community has, by actively assisting efforts of nation-building, contributed towards increased Kyrgyz awareness of its disadvantaged position resulting from the water allocation and barter schemes. Moreover, Kyrgyzstan was empowered by the foreign assistance and was assimilated into a new cultural environment and its environmental norms and values.

### ***Cultural environment***

The Soviet structures for water management have continued to exist in Central Asia. This continuation has prevailed despite the fact that the water allocation schemes and the barter deals have proven highly inefficient and object to increased scrutiny from the upstream countries. The sociological approach to new institutionalism contributes to an alternative perspective of the enduring strength of the Soviet water management than what is presented by the other institutional approaches.

The sociological approach holds that institutions are based on the cognitive templates shared by actors in a culture. Hence, the cognitive templates constitute the cultural environment

where institutions origin, develop and change. Greif (2005) argues that these cognitive templates moreover provide tool-kits for members of a society when they are faced with new situations as the templates shape the way new situations are perceived. According to the sociological institutionalists the “easiest” thing for actors to do in new situation, is to continue to behave in accordance with the past practices. By doing so actors can anticipate how other actors most likely will behave and coordinate their behaviour correspondingly. The sociological approach argues that such scenarios are common because agents in general find it necessary, useful and desirable to draw on the past.

These are all interesting and highly relevant perspectives when studying the continuation of water management institutions in Kyrgyzstan and Uzbekistan. The water allocation schemes and the barter deals had been institutionalised through the Soviet structures and though the principals of resource sharing. Furthermore this proved to work within its own logic by extensive funding and centralised control. Through a sociological perspective the cultural authority of the Soviet regime provided a perception of logic of appropriateness, establishing legitimacy through the provision of public goods. Through such a view the distribution of public goods can said to have developed shared cognitive templates giving common grounds for what was conceived as appropriate practices. Faced with independence the Central Asian leaders used these common templates as tool-kits provided from the Soviet era so as to cope with the new situation. That is, they continued to rely on the principles of the economic structures inherited from Soviet era. The arrangements from the Soviet era had legitimacy among both the upstream and downstream states as they had provided stability and benefits. Relying on the past practises when faced with independence was then conceived as providing a sense of stability in a situation of potentially destabilising conditions. Through the lenses of sociological institutionalism the previous institutions such as the barter deals and the BWAs, therefore served as a familiar guides in the very uncertain present and into a challenging future. New formal institutions such as the ICWC were established as substitutes for the overall controlling function of water resources previously carried out by *Minvodkhoz*. ICWC was to control and monitor the previous Soviet structures of water allocation (Weinthal 2002). Through the view of sociological institutionalism, legitimacy is an issue of cultural authority (Hall and Taylor 1996). The sociological institutionalists argue that past cognitive models also lays the fundamentals for what is appropriate in a society today. The regulatory scope of the controlling institutions in the Soviet water management, imposed highly hierarchical practices. The socialist ideology implied a collective organisation of the society, which left little room for social mobility.

This system imposed a detachment of the local and the central level. Nevertheless, the very existence of Moscow as a provider of stability, resources distribution and subsidised gave the system a cultural authority which gave the system a relatively high degree of legitimacy.

However, the legitimacy of the resource sharing scheme has been difficult to uphold since independence. Through the lens of the sociological institutionalism this can be seen in relation to the changing cultural environment brought upon the new geo-political context. During the Soviet Union the controlling instance in Moscow had served as a neutral arbiter of potential conflicts among the upstream and downstream republics. The system of resource sharing had been institutionalised in the Central Asian economy and through its distributional function it was also perceived as legitimate. Hence, the cultural environment in which this system had worked had produced cognitive templates that legitimatised the hierarchical system. When Moscow, the controlling centre disappeared, however, the cultural environment in which the previous system had worked in was inevitably exposed to changes. The transition towards more market-based economies involved a changing environment where new sets of norms and values were adopted, causing ruptures to the old cognitive templates. With independence, the formerly unified water management system now was transmitted into a context where the overall Union needs were changing towards national preferences. Without Moscow as the regulated force and with a transition towards market economy, the national interests of Kyrgyzstan and Uzbekistan started to crystallise. Under the changed conditions the continuation of the Soviet structures proved highly dissatisfactory for Kyrgyzstan. The legitimacy of organs such as the ICWC were not conceived as legitimate by the upstream state as the new institutions failed to assure that the barter agreements were followed, nor provide the benefits of the previous system. Kyrgyzstan lost their previous benefits of free fossil fuels and the water allocations schemes and barter schemes left them in an overall unfavourable position. The new institutional arrangements were by the upstream state no longer perceived as appropriate as the cultural authority had changed.

However, the hierarchical principles on which the previous system had functioned have continued to exist in the new context. This can be seen in relation to the lack of social capital in the Central Asian societies. The controlling feature of the Soviet system had evolved on expenses of other assets which in later studies have proven vital for institutions to be successful (Putnam 1993, Mearns 1996, ICG 2002, Luong 2003). These were assets such as social capital. Putnam's perspective on how trust is the fundamentals for successful institutions gives an interesting contribution to the discussion of the water management situation between Kyrgyzstan and Uzbekistan. Mearns (1996) noted that the Central Asian

society lack the social capital to perform reforms. The cognitive template in the Soviet society can arguably be said to have developed around a collectivised control hence giving little chance to build institutional interaction on trust. As discussed above, examples of a continuation of vertical management structures are many also today. With the absent of social capital to underpin institutions, the water management institutions have relied on a continuation of controlling and hierarchical principals. This have favoured Uzbekistan as the water nomenklatura is dominated by Uzbek experts. The sociological institutionalism point to how professionalisation of certain spheres creates professional communities with the cultural authority to press certain standards on their members. As the Uzbek water nomenklatura has dominated regional water management in Central Asia, this have endured the strength of the Soviet water management.

However, the hierarchical feature of the regional water management system has been object to increased scrutiny by Kyrgyzstan. This has moreover been fuelled by a changed cultural environment which has been introduced in part by the international community. The legitimacy of the Uzbek water institutions such as the ICWC and the BWAs has crumbled as the principles for how these a run is not consistent with the new norms and values increasingly adopted by Kyrgyzstan. Demands of hard currency for compensation of water is an example of such. In this matter it is interesting to look back at how the sociological institutionalism argues that institutional change might occur. Sociological institutionalists argue that institutions do not necessarily crumble when they lose efficiency, as argued by rational choice institutionalists, but rather when they no longer are in tune with dominant social and cultural codes (Lecours 2005). This point, I argue, is particular interesting when studying the water institutions in Central Asia and the influence of the international actors. After a relative isolation from the outside world during the Soviet era, Central Asia, and in particular Kyrgyzstan has now opened up to the outside world through extensive foreign assistance. The influence of the international community and the values and norms that followed, therefore posed challenges to the previous cultural environment. Financial advice from international actors has moreover made Kyrgyzstan more aware of its own economic potential through hydro electricity and posed even more questions to the legacy of the Soviet economic structures. Through such a view, a change in the cultural environment might give opportunities for change in the Central Asian water management.



### ***Structure and agency revisited***

The above shows the dual approach to structure and agency within sociological institutionalism. It shows how the structures inherited from the Soviet Union have continued to exist as these were based on cognitive templates that ruled out what was conceived as appropriate practices. However, these structures were challenged by the new cultural environment brought about by independence. The new geo-political context did also cause changes in previous cognitive templates. Through the new cultural environment the previous structures of the Soviet water management changed the perception of this system as legitimate by the upstream state of Kyrgyzstan.

Sociological institutionalists hold that institutions are embedded in culture and the cognitive templates of its members. These institutions may be transformed over time, but they also retain much of their past history. However, unlike being the captive of that history entirely, as they might be in the path dependent historical institutionalism, the institutions are seen as redefining themselves as well as reflecting their past. Rather than a question of design and change that occurs once and for all, change involves developing new understandings through changes in the cultural environment. This makes change slower but on the other hand more possible than more absolutist positions about replacing values might be.

The theory of sociological institutionalism offers an interesting insight to how institutions continue to exist due to past cognitive templates of members of a society. It does however also elucidate how such cognitive templates can be challenged by changes in individual's cognitive templates. Consequently this can give changes in the cultural environment that the existing institutions are conditioned by forcing current institutions to change.

### ***Summary***

In this chapter I have used theories of new institutionalism to discuss how the Soviet legacy has affected regional water management in Kyrgyzstan and Uzbekistan. In the first part I used the theory of historical institutionalism to discuss how the integrated legacy of the Soviet water management has produced enduring strength in the post-Soviet setting. By using the concept of path-dependency I discussed how current institutions and institutional arrangements are influenced by past policy choices. This has proven to be the case in the Central Asian water management as the region has been caught in a trajectory of cotton monoculture which has proven difficult to break. The historical institutionalist approach

offered an structure based approach for understanding the continuity of the Soviet water management. In the second part I used the theory of rational choice institutionalism to discuss how an irrigation regime have continued to rule regional water management in Central Asia. By using the concept of bargaining strategies I discussed how political motivation and strategic calculations have influenced the continuation of the Soviet practices of water management. I discussed how the Uzbek elite and water nomenklatura have preferences for retaining status quo. They have in large managed to retain this given a better bargaining position than that of Kyrgyzstan. In the last part I used the theory of sociological institutionalism to discuss how the cultural environment upon which the Soviet institutions were used as a tool kit as to cope with the new geo-political situation. This has given institutional continuation in water management since independence although it has been object to much scrutiny by the upstream state. The fundamentals on which the Soviet system based its legitimacy is gone and hence the water institutions have started to crumble. A changing cultural environment can therefore give opportunity to institutional change.

## ***Chapter 7: Institutions in transition***

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### ***Introduction***

A widespread assumption among scholars and economists in the West was that the collapse of the Soviet Union represented an opportunity for the new independent states to follow more desirable paths of political and economic development. Anders Åslund, representing the proponents of radical reform, has described the immediate post-Soviet society as desperate for change: “The popular battle cry was: “We want a normal society!” “. Åslund further explains that “by normal, people in the Soviet bloc meant an ordinary Western society” (Åslund 2002:70). Hand in hand with such assumptions, there were expectations that once new Western institutions were implemented, Western values, norms and rules would follow accordingly.

Taken as a conventional wisdom at the time, scholars and economists also expected a decisive break with the Soviet past in the new independent states of Central Asia (Luong 2002). However, more than a decade after the demise of the Soviet Union, the transition across its Central Asian successor states have failed to produce new institutional outcomes consistence with these expectations. Contrary to what was expected, a great degree of continuity of past Soviet institutions has been the case. As demonstrated in chapter 6 this has also been the case in the regional water management institutions. This chapter sets out to discuss the complementary research question of the thesis:

*How have the approaches to economic transition in Kyrgyzstan and Uzbekistan, respectively, affected the institutional framework for water management in the region?*

By discussing this question the chapter returns to the post-Soviet debate presented in chapter 5. By using chapter 6 as an empirical backdrop, I will discuss how the gradual and radical reform paths of Kyrgyzstan and Uzbekistan respectively, have affected regional water management.

### ***Transition reforms revisited***

From the onset of independence a significant difference appeared in the political and economic reforms of Kyrgyzstan and Uzbekistan. The varying nature of the reforms carried out in the respective countries, can be mapped on a transition scale from the most to least

reform oriented trajectories. At one end of the scale is Kyrgyzstan's transitional context, characterised by widespread and fast-paced political and economic reform. Kyrgyzstan embraced the financial advices from the international community which meant an introduction of swift macro-economic reforms. At the other end is Uzbekistan who ignored advises coming from international financial institutions and chose a gradual reform approach. Did the respective reform trajectories produce the institutional outcome as expected? What impact has these reforms had on regional water management institutions in particular? These are questions I will discuss next, starting of with the radical reform in Kyrgyzstan.

### ***Radical break in Kyrgyzstan?***

In many respects Kyrgyzstan has come far in means of macro economic stabilisation. During the 1990s extensive reforms opting for the creation of market-friendly and Western-inspired institutions, were carried out. Rapid privatisation projects were performed in most spheres of the economy and through the reform-friendly president Askar Akaev, Kyrgyzstan was called a model to be followed for other post-Soviet states (Abazov 1999, Gleason 2004).

Reforms in the water management sector in Kyrgyzstan has also underwent several changes, encouraging market based principles. Adoption of government policies that has promoted irrigation pricing and extensive privatisation of agricultural land which has provided rights of self governance and responsibility for management of irrigation systems to farmers, are some of the steps taken in this direction (Micklin 2000). However, as chapter 6 demonstrates, the very nature of the water management problem in Central Asia is *regional* in scope. Any approach to this problem therefore calls for a regional perspective and will have only limited or no effect if the problem is approach only nationally. Yet again the barter deals can provide good examples. As water is the resource of truly abundance in Kyrgyzstan, hydro electricity was seen as an important potential source of revenue for the national economy. The international community consequently supported privatisation projects in the water and energy sectors as part of their efforts to promote a viable market economy. However, as shown in chapter 6, Kyrgyzstan signed the Almaty Agreement of 1992 together with the four other Central Asian states. This agreement committed Kyrgyzstan to a continuation of the principles of the Soviet water allocations scheme and the barter deals that these were based upon. In other words, while the radical reforms were implemented at a national level, urging for a privatisation of the water and energy sector, Kyrgyzstan still had to obey by the old water sharing agreements that did not allow for the generation of hydro electricity in the winter months (ICG 2002). Caught between the strategies of the radical reform and a continued

integrated resource sharing scheme, Kyrgyzstan was therefore somehow falling in-between old and new structures. While the radical reforms aimed at building a national economy after Western standards, the integrated legacy of the Soviet water management continued to make Kyrgyzstan highly dependent on its neighbour for supplies of fossil fuels. A mismatch between the old structures and the new policies in Kyrgyzstan did consequently occur. A restructuring of the water management institutions towards more market based institutions, could not possibly isolate Kyrgyzstan from its geographically, economically and administrative structures which had been allowed to reproduce over an extensive period of time. Weinthal (2002) notes that as part of the state-building process, the international community broke down the former interdependencies of the Soviet system and by doing this they failed to realise the mutual benefits of trading water and energy. Hence she is suggesting that the structures which were already laying the bases for a regional coordination, could more actively have been used as means of cooperation. Based on the above, I argue that the radical reform, by concentrating on restructuring the national economy of Kyrgyzstan, neglected the historical-structural context in which Kyrgyzstan was still heavily embedded. The proponents of radical reform failed to acknowledge the integrated legacy of the Soviet water management which formed the very bases for the economy in the region. It moreover added to the problems as it produced conflicting interests and tensions between the upstream and downstream countries.

One of the main ideas behind the radical reform was that previous structures should be eliminated as they were thought to obstruct the very transition towards democracy and market economy (Åslund 2002). This however, would in the case of Kyrgyzstan, imply that the entire economic structures that they were based upon would be eliminated. This would not only produce a scenario threatening the already uncertain stability in the region, it would also cut Kyrgyzstan off from supplies of fossil fuels which provided the country with the main bulk of power for heat and electricity. With the existing hydro electric stations only allowing a limited degree of energy production, Kyrgyzstan was still heavily dependent on these energy supplies from Uzbekistan. According to professor in economics and head of the OSCE and in Kyrgyzstan, the ignorance of the structural-historical context, resulted from an initial lack of knowledge about Kyrgyzstan and Central Asia in general from the outside world. When the international community, through financial organisations such as the World bank and the IMF, first got involved in the region at the beginning of the 1990s reforms were characterised by “blue print strategies” and “vague general presumptions of how a transition should take place” (informant 1).

Anders Åslund proved to be a major influence on the economic transformation in Kyrgyzstan. He worked as the economic adviser of the Kyrgyz president, Askar Akaev, throughout the 1990s. As part of the radical approach, Åslund warned against looking back into particularities and dwelling upon legacies from the past when building new institutions. Åslund advocated that the most crucial factors for institutional building were contemporary elements (Åslund 2002). This suggests the *tabula rasa* assumption discussed in chapter 3 and 4. Transition in Kyrgyzstan was thought to consist of a new context in which new institutions could be built. Åslund was inspired by Hayek's (in Peters 1999) perspective on institutions. He argued that assets of institutions usually related to institutions, such as norms and values, would follow if the right institutions were introduced. Stiglitz (1999a) strongly criticised this assumption arguing that the market economy, as developed in the Western societies, has developed throughout a long period of time allowing for such institutional assets to be created. As noted, Putnam (1993) also argued that institutions based on important assets such as trust, take a long time to develop. With an ideal timeframe being "less than two years" (WDR 1991:117) this was paradoxically something that the radical reformers did not have time for. There are several evidences from the Kyrgyz context that the institutional assets expected to develop with the implementation of new market based institutions has yet to develop. At a local level, farmers in general have been unsatisfied with the introduction of market based institutions. Micklin (2000:56) notes that the rural population in Kyrgyzstan "[C]ontinue to support the idea of retaining some form of collective agriculture and state ownership of land". Values such as the right to own land has therefore yet to follow despite the radical presumption of a rational adaptability of norms and values.

By focusing primarily on macro economic stabilisation the policy opted for a more passive role for the state in institution building. The role for the state was merely to foster new patterns of behaviour through new institutional arrangements based on principles of liberalisation and privatisation. However, in Kyrgyzstan where most institutions previously had been based on control, leading to what Mearns (1996) called the erosion of social capital, it has proven difficult to build new institutions based on trust, on an inter regional as well as at local level. This has also proved to be the case in the water management sectors where a lack of trust is clearly evident among both farmers, failing to follow local set quotas, and water officials at inter-state level, failing to agree and follow by the barter deals and water quotas negotiated. That the previous plan economy was based on a controlling institutions and what Sztompka called a "society of distrust" was hence a feature of the Kyrgyz society that was given little attention in the radical reform approach. Abazov (1999) agree with this point

arguing that ‘shock therapy’ has some major weaknesses even in a situation when the macroeconomic policy is right. The major problem, he argues, is that although ‘shock therapy’ tends to address macroeconomic issues, implementation of this policy often leads to ignoring the need of microeconomic changes and peculiarities in various regions. Sztompka (in Holm-Hansen 2000) argued that for full exploitation of institutional opportunities emerging from the market, democratic polity and pluralistic thought, trust was a precondition. Such institutional assets, he argues, need to be fostered in society and can not be implemented from above. Neither can it be fostered where the policy is large focuses on macro economic equilibriums. Thus, the radical reforms ignored the importance of social capital and trust for successful market institutions to function. Holm-Hansen (2000:10) argues that

[I]f Putnam’s conclusion [that social capital underpins institution] is valid also in the post-socialist countries, the current reform strategies may prove to fail as they are based on an assumption that radical transformation in attitudes, expectations and behaviour can be brought about in a comparatively brief period of time.

The proponents of radical reform had argued that a rapid break with old institutions was essential, not only to reach a market economy but also to break the power of the Soviet *nomenklatura*. Only by eliminating the old Soviet power structures would there be possible for building new democratic institutions and a strong civic society. The World Bank anticipated conflict over natural resources in the Central Asian region and was operating after the assumption that it needed to intervene early because they feared that national interests would develop later that could make cooperation more difficult (Weinthal 2005). The financial assistance offered by the World Bank was therefore made contingent on the Central Asian states devising *new institutional frameworks* for water sharing. In order to compensate for the predominance of the downstream specialists in the water sector, the international community initiated the establishment of new organisations with national and/or ethnic criteria. Yet because these organisations were fabricated to meet the conditions for international aid, many of them remained dormant. Weinthal (2002) moreover concludes that many of the new institutions were simply constructed as showcases to the international community. Thus, many of these organisations did not provide functioning mechanisms for coordination. Weinthal further notes that because these new institutions had limited or no power, it was the old water *nomenklatura* in Uzbekistan continued to rule the game. She further notes that “the legacy of cotton monoculture limited the scope and form of cooperation that emerged” (Weinthal 2002:171). Hence, I argue that the attempt to eliminate

the nomenklatura was constrained by power structures that pervaded the Central Asian society, economy and policy. These power structures were characterised by an Uzbek dominance where Kyrgyzstan's relative bargaining power has been weaker. I hold that the assumption of the radical reformer that they would eliminate such power structures by implementing Western standards was rather naive as to believe that the Soviet nomenklatura would "vanish" with the introduction of Western based democratic and liberal institutions. Hence at this point I find it reasonable to agree with Stiglitz arguing that new structures can not simply be legislated, decreed or in some other way be implemented from above.

The above clearly indicates that it is a big difference between choosing a policy and making it work. In a recent rapport the World Bank has acknowledged that the radical reform was perhaps not the most effective reform in the case of Kyrgyzstan

[T]he operations were sometimes modelled after Central and Eastern Europe, without tailoring project design to reflect Kyrgyzstan's particular conditions, including its geography, institutions and cultural characteristics

concluding further that there had been

[A]n over-optimism about the speed at which sustainable growth would be restored as a result of structural changes and insufficient attention to governance issues, the complexities of institutional development in the local context and the need for follow-up in implementation of the reforms (World Bank 2001:13)

### ***Incremental changes in Uzbekistan?***

Out of all the successor states of the Soviet Union, Uzbekistan showed the smallest economic contraction in the 1990s (see appendix 4). With an extensive cotton industry Uzbekistan managed to find new worldwide markets and had therefore ensured substantial foreign revenue. The economic reforms in Uzbekistan has been characterised by slow pace and incremental changes. Furthermore has the state continued to play a central role in the Uzbek transition process. These are all characteristics of a transition approach like the one advocated by the proponents of gradual reform. Stiglitz has indeed used Uzbekistan as an example of a country which is "doing rather well" despite that its transition path was doomed to fail by foreign financial advisers (Stiglitz 1999b:4). However, as for regional water management, the gradual transition in Uzbekistan provides quite a few question marks as for how successful this transition path has really been.



The proponents of the gradual approach also emphasised that the state should play a large role by “creating environments in which evolutionary processes -including local experimentation- can best occur” (Stiglitz 1999a:26). As demonstrated in chapter 6, however, the state has left little room for initiatives at local level. The reform processes in Uzbekistan have also occasionally contributed to a reversal in terms of creating market oriented institutions. The agricultural sector, which must be seen in close relation to the current water management problems, has in particular seen few changes with much of the Soviet structures still intact. Unlike Kyrgyzstan, there has not been a disbanding of collective farms and the state still regulates the cultivation patterns (Kandiyoti 2004). However, leasing of land to private farmers was introduced in 1996, giving small scale farming a boost (Micklin 2000). Nevertheless, farmers running private, still have to follow state guidelines on what crops to grow and hand over an agreed portion of their harvest to the state. If they fail to meet the agreed quanta they run the risk loosing their right to land. An example from the Jizak region in Uzbekistan can illustrate this. Several farms here have been taken to court as they have failed to fulfil the government requirements of harvest deliveries. According to the head of the court the farms had failed to sow cotton on around 8000 hectares of land as directed. He demised their argument that the heavy rain in spring had rotted the harvest, leaving the farmers with no choice but to plant other crops

[I]f the weather conditions in spring were terribly difficult the farmers could have sown the cotton at the beginning of summer. But they preferred to use the land as they pleased and planted wheat and onions there

(quoted in Khaidarov and Gadoev 2002 )

The regional administrators then ordered the unauthorised crops to be destroyed. The land is now in the process of being confiscated by the state.

Mearns (1996) has suggested that private farmers are particularly vulnerable in such as setting as they are seen to jeopardize the ability to collective farms to meet state orders of cotton as they divert land and labour from the collective. As a result many would-be private farmers are allocated the very driest and remote areas of land with no access to irrigated water. Being charged for not “having used the land properly” Mearns note that an increasing number of private farms have been transferred back to the collective farms.

Such gradual and occasionally reversed reforms in privatisation and agriculture have had direct consequences for regional water management in Central Asia. As the state keeps the full control and monopolise the cotton production such transition favours a continuation of the water management structures in the region. Proposals from the international

community have concluded that extensive amounts of water can be saved by a shift in agriculture away from the water-intensive cotton (informant 8). This would not only reduce the over exploitation of the water resources but moreover give a more fair distribution of the water resources between the upstream and downstream state. A reduction of the water acquired for irrigation in summer time would allow for more water to be used for hydro electricity in Kyrgyzstan in winter time (ICG 2002). However, as discussed in chapter 6, this option has been the least favoured solution by the Uzbek elite, since restructuring agriculture could potentially undermine the system of social and political control. A gradual reform approach to transition allowed for a continuation of the Soviet system. In terms of future prospects, however, such gradual strategy can arguably said to serve only short-term profitability.

The proponents of gradual reform emphasised that a transition should build upon old institutions and structures as to use the best of these to build up new structures and institutions. As discussed above Weinthal (2002) argued that the integrated structures of water sharing more preferably could have been used as means of cooperation among the states. Seen isolated such statement makes sense. However, such view does not take into consideration rent seeking actors which favour that the asymmetrical structures continue to exist. A gradual approach where Soviet power structures were allowed to be retained by the old elite, was one of the very reasons why the proponents of radical reform advocated a rapid transition. They argued that if the old Soviet elite were allowed to maintain the old power structures, this would obstruct a transformation towards truly democratic and market based institutions. The proponents of gradual reform were therefore criticised by the radical reformers by what the latter called a naive perception of the post-Soviet society (Åslund 2002). Apart for the fear that this would lead to extensive rent-seeking, the shock therapists warned that a gradual reform would lead to a state of cognitive dissonance, as old structures would continue to exist side by side with new structures. One of my informants, specialist on regional cooperation at the Asian Development Bank in Bishkek, made an interesting comment related to the above as she pointed out that

Uzbekistan can't decide how independence can benefit them the most [...] and the situation has therefore stranded at a status quo (informant 6).

The proponents of gradual reform stressed that a re-building of institutions should not begin with the destructions of old structures as valuable information could get lost (Stiglitz 1999a). They emphasised the importance of using the knowledge and networks already existent in

these societies. Arguably the network and knowledge in the water sector has continued to exist through the water nomenklatura in Uzbekistan. However, the way it has been utilised has mainly been in the interest of the downstream state. The water experts and officials who comprise this knowledge and networks have great stakes in retaining status quo as this has allowed them to maintain their positions. Weinthal (2002) pointed this out when arguing that the cotton monoculture represented a system of social, political and economic control and that the urge of the Uzbek elite to maintain this control prevented them from choosing the most effective and environmental sound institutions in the region. Micklin (2000) has further pointed out that rent seeking elites have also been a big problem in water management, particularly in Uzbekistan. The policies in Uzbekistan have been gradual and only led to few changes in political power. Moreover, the water nomenklatura has retained its positions within the water institutions and there has been little turnover. ICG (2002) claims that part of the problem of solving the regional water management problem has been the domination of water structures from a small group of Soviet-era officials who are seldom open to new ideas or alternative opinions. An illustration of this is the reintroduction of the major Soviet idea of diverting two Siberian rivers as to solve the water problem in Central Asia. Head of the ICWC put this plan back on the agenda in 2002 reasoning that this would reduce Uzbekistan's dependence on water from its upstream neighbour. Such plans show a continuity of the thought that the water problem can be solved by technical major engineering projects rather than political negotiations. ICG concludes that Uzbekistan

should seek realistic ways out of its water crisis through difficult but necessary negotiations with neighbours and changes to its own agriculture, water use and economic policies (ICG 2002:26)

Luong (2002) has argued that the transitional paths chosen by the Kyrgyzstan and Uzbekistan respectively, were based on the elites' motivations to adopt certain strategies as to augment their own bargaining power, and hence their ability to capture distributive gains during the transition. In Uzbekistan's case this meant a gradual reform approach ensuring that institutions giving them power continued to exist. A gradual reform was more favourable for the Uzbek political elite as this would maintain their bargain position in the region. While the international community sought to build entirely new interstate and domestic institutions, it was often the case that the Central Asia leaders were encasing previous forms of governance into new institutional structures. In short this resulted in that the old water nomenklatura

managed to capture the new water institutions and reconstruct their roles to fit the international community's conditions for aid. Weinthal (2002:190) notes that

the old water nomenklatura sought to restructure the system of water management just enough to ensure that they retained their positions of power

Thus, in the case of Uzbekistan, the building upon knowledge and networks in the water sector has proved to augment the bargaining position of Uzbekistan producing limited space for solving the regional water management problems.

As for building up on other social capital than that of the elite, this has proven difficult in Central Asia in general as the previous system had given little room for such social capital to evolve. Micklin (2000) has further pointed out that the Uzbeks have particularly strong traditions of hierarchy and authoritarianism causing even further limitations of such social capital to evolve. Gradual approach emphasised social capital but as such social capital had not been allowed to develop in Soviet time there was hardly any such institutions to build upon.

Based on the above I find reason to argue that the gradual reform in Uzbekistan has not provided an environment for incremental change as was the initial idea of the proponents of gradual reform. A gradual reform has also been used as means of retaining extensive controls of all spheres in the society. Consequently the very "fears" of the proponents of radical reform has evolved in Uzbekistan. It has moreover constrained the cooperation over water resources with its upstream neighbour as internal political preferences seems to overshadow alternative options for how to come to terms with the inefficient water management.

### ***Diverging transition***

Based on the discussion above, I find reason to argue that the different transitional trajectories have created several challenges to regional water management in Kyrgyzstan and Uzbekistan. I argue that the diverging policies must be seen in relation to a range of factors. First, they can be seen in relation to the different preconditions, or the different structural-historical context in which Kyrgyzstan and Uzbekistan were embedded in from the onset of independence. The asymmetrical power structures that the Soviet institutional framework had given Uzbekistan, gave the Uzbek economy a more favourable starting point which in turn favoured a structural continuity through a more gradual reform. In the case of Kyrgyzstan, however, the economy had few initial preconditions to manage independently which therefore called for a high degree of structural changes through a radical reform. Second, they

can be seen in relation to the bargaining strategies that these countries chose as to alter their bargaining position. Independence represented a threat to the relative power of the Uzbek elite which therefore favoured to retain the old institutions as to retain their bargaining power resulting in little institutional innovation. For Kyrgyzstan, on the other hand, independence created a possibility for an altering of their relative bargaining position which therefore called for institutional innovation. Third, they can be related to the new cultural environment which independence created. The legitimacy upon which the old system was based, changed with the absent of the controlling instance in Moscow. The new geo-political context changed the cognitive frames for what Kyrgyzstan perceived as logic of appropriateness, opting for radical change, while Uzbekistan in large continued to adhere to the old cognitive maps as these continued to be perceived as appropriate. A gradual reform did moreover retain these cognitive templates. This divergence of policies has caused a misbalance between the policies in the neighbouring countries and the diverging economic systems have made the coordination of the water resources problematic. These differences have constrained the development of more efficient institutions for water management in the region. Thus, I hold that the transitional approaches chosen in Kyrgyzstan and Uzbekistan respectively have been formed by both the structural-historical context, the bargaining strategies of the countries and a changed cultural environment which the new geo-political context of independence brought upon these Central Asian countries.

## *Chapter 8: Conclusion*

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The main object of this thesis has been to elucidate how the Soviet legacy has continued to affect the regional water management in Kyrgyzstan and Uzbekistan. The thesis has sought to shed light on the enduring strength of the Soviet water management institutions despite the fact that these institutions have failed to prove viable in the new geo-political context. The thesis has moreover used the backdrop of the transition context and discussed what impact the transition trajectories have had on regional water management in Kyrgyzstan and Uzbekistan. I will now revisit my main question and complementary research question one last time and make concluding remarks based on the analysis presented above.

*Q. How does the Soviet legacy continue to affect the institutional framework for regional water management in Kyrgyzstan and Uzbekistan?*

By using the theories of historical institutionalism, rational choice institutionalism and sociological institutionalism I discussed how the Soviet legacy has affected the institutional framework for regional water management. Using these theories collectively provided an integrated analytical perspective by which to study how the Soviet legacy have continued to shape the institutional outcome through dual processes of structure and agency. The crux of the analysis shows that the Soviet legacy has continued to form regional water management through both a path dependent reproduction of economic structures and through strategic bargaining of actors that have sought to remain these structures. Moreover, does the analysis suggest that the Soviet legacy of water management was used as a tool kit by which to manage the new geo-political context. However, I have also discussed how the Soviet legacy is conditioned by the cultural environment in which it is embedded. Through the theory of sociological institutionalism I suggested that the changes brought upon the cultural environment with independence, might offer an opportunity for institutional change in regional water management. The above analysis therefore gives reason to argue that institutions are not only reflections of societal forces like economic, cultural or political forces, working in the present time. That is to say that institutions are not solely formed by underlying structures. Nor are institutions neutral units, adjusting mechanically to changes in society or instruments that can readily be manipulated by actors. Institutions are shaped by a dual interaction of structure and agency.

The analysis has through a multidimensional analytical perspective provided a discussion of different perspectives for how the Soviet legacy has formed the institutional framework in Central Asia today. Such an analytical perspective have proven useful as to grasp the complexity of regional water management in Kyrgyzstan and Uzbekistan. Using new institutionalism as a theory has moreover, provided an opportunity to lift the complex issue of regional water management to a higher abstraction level. This has made the issue more comprehensible although many questions are yet to be answered. The strength of these theories has therefore been the provision of a theoretical framework within to study regional water management. However, as the theories do not suggest any analytical tools for how to carry out an institutional analysis this make these theories more interpretive than explanatory.

*Q. How have the transition approaches in Kyrgyzstan and Uzbekistan, respectively, affected the institutional framework for regional water management?*

The complementary object of this thesis was to discuss how the continuation of Soviet water management must be seen in close relation to the transition approaches which were embarked on by Kyrgyzstan and Uzbekistan respectively. I have argued that despite reforms of macro economic stabilisation in Kyrgyzstan the radical reform approach has nevertheless had limited impact in water management. This I argued must be seen in relation to the integrated character of the water management system and in relation to the transition trajectory of neighbouring Uzbekistan. I have suggested how the enduring strength of the Soviet legacy in large has been conserved by a gradual Uzbek transition trajectory. Hence, I hold that the distinct reform processes of Kyrgyzstan and Uzbekistan have affected regional water management as they have provided substantial divergence of economic and political fundamentals which has proved constraining for a coordination of the water resources in the region.

The complementary research question has produced some twist and turns in my own perception of the transition debate. In principle I adhere to the perspective presented by proponents of gradualist reform due to their sensitivity towards geographical and historical context. My initial idea was therefore to study how the radical reform approach had failed to recognise the integrated nature of the Central Asian region and water management. By using Stiglitz' (1999a) critique of the radical reform I wanted to argue that the institutional approach advocated by gradual reformers would be a much more desirable way of restructuring regional water management in Central Asia. As the work with the thesis

proceeded, however, I became increasingly aware of that the failure of rebuilding water institutions in Central Asia was not simply the radical reformers ignorance of the historical and geographical context. As the thesis developed and the analysis started, I realised that it is really the gradualist approach of Uzbekistan that has placed most constraints on efficient water management in post-Soviet times.

Hence, my initial assumption that the gradual reform was the “best” and most considerate transition trajectory, has been object for considerate challenge in the work with this thesis. Consequently and as a closure I chose to adhere to Vedery’s (1997) critique of the very transition concept *per se*. I will therefore argue that a transition is better conceptualised as a open-ended process to be understood as a transition *from* socialism and plan economy, more than a transition *to* market economy and democracy.

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## Appendix 1: List of interviews

Informant no.	Position	Language	Location
1	Head of OSCE, Kyrgyzstan	English	Bishkek, Kyrgyzstan
2	Director of Institute of water problems and Hydro Electric Power, National Science Academy	Russian	Bishkek, Kyrgyzstan
3	General Director of EnCo Central Asia. Engineering consulting company in Central Asia (previous minister for environment Kyrgyz SSR 1988-1994)	Russian	Bishkek, Kyrgyzstan
4	“Economist”	English	Bishkek, Kyrgyzstan
5	National Coordinator, Global Environmental Facilities (GEF)	Russian	Bishkek, Kyrgyzstan
6	Regional Cooperation Specialist, Asian Development Bank	English	Bishkek, Kyrgyzstan
7	Vice Head of Department, Regional Water Ministry	Russian	Osh, Kyrgyzstan
8	Head of Agricultural Department Deutsche Gesellschaft für Technische Zusammenarbeit	English	Batken, Kyrgyzstan
9	Operation officer, Infrastructure and energy, World Bank	English	Bishkek, Kyrgyzstan
10	Deputy Director ICWC/SIC	Russian/English	Tashkent, Uzbekistan

## *Appendix 2: Interview guides*

### ***Water officials/experts:***

Tell me about the water management situation during the Soviet Union. How was it organised? Which organs were the most influential? How were decisions made? At state level? Republican level? Regional level?

Were you involved with water management during the Soviet Union?

In your opinion, how did the water management work during the Soviet Union?

Tell me about the barter agreement.

What would characterise as the biggest difference between the water management today compared to that of the Soviet Union?

What seemed to be people's opinion about the water situation in the Soviet Union? Were they satisfied?

Tell me about the regional water management situation today. How is it organised? What organ do you consider to be the most influential? How are decisions made? At state level? Regional level? District level?

Which changes did independence bring about in the water management situation? Have these improved water management?

Tell me about the water/energy nexus today

What would you say are the greatest challenges for the regional water management in Kyrgyzstan/Uzbekistan today?

How would you characterise the relation between Kyrgyzstan and Uzbekistan today?

What has a transition towards market economy played for the regional water management?

What in your opinion would be an ideal solution to the regional water management problems?

### ***International organisations:***

How would you characterise the regional water management in Kyrgyzstan and Uzbekistan?

How would you characterise the relationship between Kyrgyzstan and Uzbekistan?

How would you say that the legacy of the Soviet Union is visible in the regional water management today?

What do you see as the biggest challenges that these countries are facing today in terms of the water management situation?

What do you consider as the greatest role for the international community in the regional water management in Central Asia?

***Group interviews with farmers:***

How would you describe the water situation in your village (*kolkhozy/sovkhozy*) in the Soviet Union? Satisfactory/Not satisfactory?

How would you describe the water situation in your village today?

How would you describe your influence on decision-making regarding water in your village (*kolkhozy/sovkhozy*) during the Soviet Union? Were you consulted in any matter?

How would you describe your influence on decision-making regarding water today? Are you consulted in any matter?

Who did you contact if you experienced any water related problems in the Soviet Union?

Who do you contact if you experience any water related problems today?

Have there been any changes in water management since 1991?

Have there been any water related projects in your village since 1991?  
Tell me about these.

Do you think there need to be any changes in water management in your village? If yes, what kind of changes do you think is needed?

**AGREEMENT**  
**between the Republic of Kazakhstan,**  
**the Kyrgyz Republic, the Republic of Tajikistan,**  
**Turkmenistan and the Republic of Uzbekistan**  
**on co-operation in interstate sources' water resources**  
**use and protection common management**

The Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan and the Republic of Uzbekistan here-in-after called "the Parties",

leading by necessity of approved and organized measures on interstate sources water resources common management and agreed policy carrying out in interest of economy development and population living standards increase;

basing on historical community of peoples living on the republics' territory, their equal rights and responsibility for water resources rational use and protection;

recognizing indissoluble interdependence of all republics interests in common water resources use according to common principles and equitable regulation of their consumption;

reckoning, that only unity and common coordination of actions will create good conditions for socio-economic problems solution, will allow to mitigate and stabilize ecological stress, which originated as a consequences of water resources deficit, and taking into account that in Tajikistan there is disproportion in amount of irrigated lands per capita, recognizing possible irrigated agriculture water supply increase; respecting existing structure and principles water allocation and basing on acting regulations for water resources allocation from interstate sources, agreed upon the following:

Article 1

Recognizing community and unity of the region's water resources, Parties have equal rights for their use and responsibility for their rational use and protection.

Article 2

Parties are obliged to provide strict observance of agreed order and



rules of water resources use and protection.

#### Article 3

Each Party participating in the agreement is obliged do not allow some action within its territory which can break interests of other parties and to make damage to them or lead to change of agreed water discharges and water sources pollution.

#### Article 4

Parties obliged themselves to carry out joint works for solution of ecological problems, connected with the Aral Sea desiccation, and also to establish sanitary releases volume for every given year bearing in mind interstate sources' water supply. In extremely dry years a special separate decision have to be made on water supply for the regions with severe water scarcity.

#### Article 5

Parties will facilitate wide information exchange on scientific-technical progress in water- economy, complex use and protection of water resources, common research carrying out for scientific-technical provision and expertise of water related projects.

#### Article 6

Parties make decision about common use of industrial potential of the republics' water economy.

#### Article 7

Parties have made decision to create under parity conditions Interstate Commission for Water Coordination on the problems of regulation, rational use and protection of water resources from interstate sources, involving in its constitution first leaders of water-related organizations and establishing quarterly meetings but if necessary – on the Party initiative. Commission's meetings are carried out under leadership of each state representatives in its capital.

#### Article 8

Interstate Commission for Water Coordination is entitled: to determine of water policy in the region, elaborate of its directions with due regard to all economic branches needs, complex and rational use of water resources, prospective program on the region water supply and measures for its realization; to elaborate and confirm water consumption limits annually for each republic of the region and the region as a whole, appropriate scheduling of water reservoirs operation, their correction according to updated forecasts depending on water supply and water-economic situation.

#### Article 9

ICWC executive and interdepartmental control entities to charge

BWO "Syrdarya" and BWO "Amudarya", which must function under conditions that all structures on the rivers and water sources are property of the republics and are provisionally transmitted to BWOs without right of transmission and trade-off on 1.01.1992 state. Basin Water Organizations are paid by water-economic entities of the republic under parity and share contribution conditions.

#### Article 10

ICWC and its executive entity provide: strict observance of releases regime and water consumption limits; implementation of measures on water resources rational and economic use, sanitary releases along the rivers channels and through the irrigation systems(where it is supposed), guaranteed water supply volume to rivers deltas and the Aral sea according to achieved agreements.

#### Article 11

All decisions by ICWC on the established water intake limits, water resources rational use and protection are obligatory for all water consumers and water users.

#### Article 12

Parties agreed to elaborate within 1992 a mechanism of economic and other responsibility for agreed water use regime and limits breakage.

#### Article 13

All disputes have to be solved by the republican water-economic organizations heads and if necessary with participation of independent side's representative.

#### Article 14

Agreement could be changed or added only by common consideration of all Parties.

#### Article 15

This Agreement shall become effective upon signing by all Parties. Agreement is accepted in Almaty 18 February 1992.

For the Republic of Kazakhstan	N.Kipshakbayev
For the Kyrgyz Republic	M.Zulpuyev
For the Republic of Tajikistan	A.Nurov
For Turkmenistan	A.Ilamanov
For the Republic of Uzbekistan	R.Giniyatullin

Appendix 4: Real GDP in 2001 in the post-Soviet states (percentage of 1989 level)

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Armenia	69
Azerbaijan	57
Belarus	88
Estonia	87
Georgia	36
Kazakhstan	78
Kyrgyzstan	69
Latvia	69
Lithuania	69
Moldova	35
Russia	62
Tajikistan	52
Turkmenistan	84
Ukraine	44
Uzbekistan	103
CIS Average*	72

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\* The average for the Commonwealth of Independent States.  
Source: EBRD (2002:17).