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DIVERGING DISCOURSES ON THE SYR DARYA

ABSTRACT. The hydraulic mission of the Soviet Union has transformed Central Asia's Syr Darya River into a governable entity. After the dissolution of the Soviet Union the river system disintegrated and conflict arose over the operation of the main dam and reservoir of the river: the Toktogul. Uzbekistan and Kyrgyzstan have widely different and diverging sanctioned discourses on how the dam should be operated and on the nature of the water itself. These discourses have had a significant impact on the hydro-politics of the river basin and the operation of the dam. The central argument of this paper is that both the decline of the Aral Sea, and the potential conflict between the states are driven by the same modernist governmentality of the river.

KEY WORDS: hydro-politics, governmentality, critical geopolitics, Aral Sea basin, Syr Darya

INTRODUCTION

In February 2011, the United States Congress discussed its foreign policy strategy for Asia, an important component of which turned out to be water security in Central Asia. The report for the meeting suggested that: *"the United States cannot expect this region to continue to avoid 'water wars' in perpetuity"* [Kerry et al., 2011: 12]. This statement echoes the oft-cited prophecy of the vice-president of the World Bank, Ismail Serageldin, that the wars of the future will be about water, not oil. Given its particular geopolitical history, the countries of Central Asia have frequently been singled out as a hotspot for this type of conflict.

However, no large violent conflicts have materialised so far and there seems to be consensus in academic circles that wars over water alone are highly unlikely [e.g. Allan, 2002; Wolf, 1998; Zeitoun & Warner, 2006]. Nonetheless, the study of the geopolitics of freshwater resources – "hydro-politics" – remains important for other reasons. Conflicts over water can take many forms that impact daily lives, national economies, and international politics [Yoffe et al., 2004]. Central Asia in particular, is an interesting case study because of its unique geopolitical setting, with domestic river basins becoming international rivers with the dissolution of the Soviet Union. This has provided sets of challenges that have not been addressed, and that are frequently misunderstood. It is the goal of this paper to contribute to the understanding of hydro-politics in Central Asia by looking at the particular modernist mentalities that have made the Syr Darya a "governable" river.

With the Syr Darya and Amu Darya Rivers, Central Asia is relatively water abundant, although the distribution is highly unequal. Fig. 1 shows a map of the area with the two main rivers that terminate in the Aral Sea indicated, as well as the distribution of flow generation and flow abstraction among the five republics. Both rivers are fed by glaciers and snow melt from the Pamir and Tien Shan mountains, whose influxes of water are highly variable. The agriculture-driven economies require much water, also in places where it is not naturally available, but the Soviet authorities have constructed extensive networks of canals, dams, and irrigation works to ensure continued

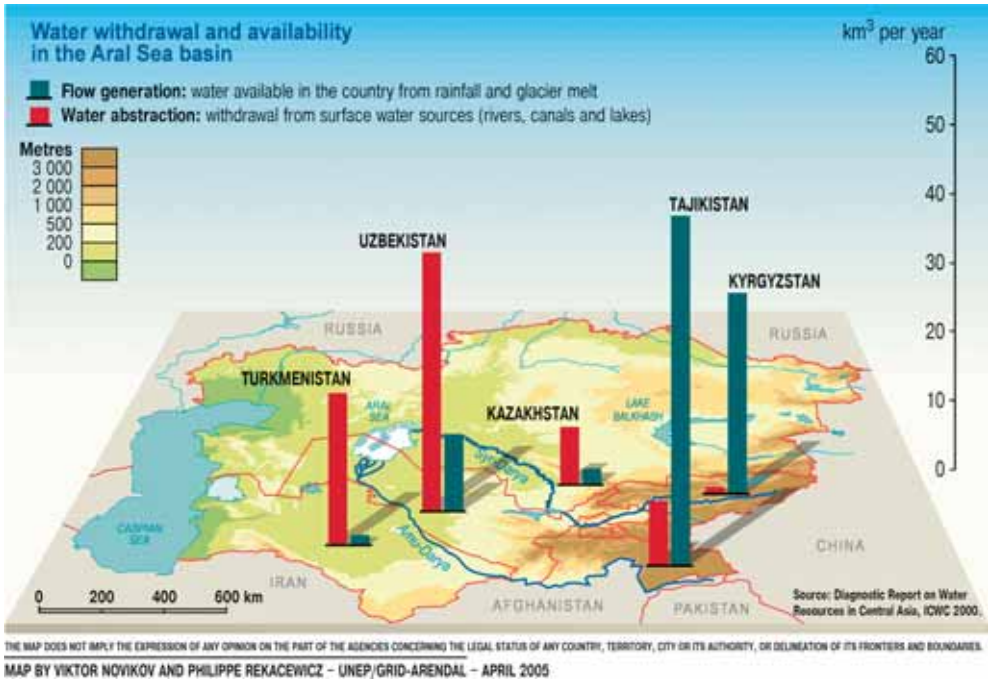

Fig. 1. Water withdrawal and availability in the Aral Sea basin. The two main rivers, the Amu Darya and the Syr Darya are indicated.

Source: *UNEP 2005*

productivity. Unfortunately, this modification of the natural flow of the rivers has had dramatic consequences for its terminal lake. The Aral Sea virtually disappeared, after most of its inflow had been diverted for irrigation [Micklin, 1988].

To understand how the river was managed during Soviet times and how the tension between the riparian states has developed, I draw from Michel Foucault's work on governmentality and its application to the rule of nature and rivers in particular [Agrawal, 2005; Foucault, 1991; Rutherford, 2007]. There has been considerable debate around the meaning of governmentality theory, but I follow a close reading of Foucault original texts. Governing, according to Foucault, is the construction of regimes of truth and the dissemination of these truths through discourses, practices, and disciplining techniques. Spreading these truths takes places beyond the state itself and across social networks and societies.

Rivers can be made "governable" through the material construction of facilities like dams and canals, but also through the discursive construction of goals of government and normalising practices. The way dams are perceived by a society as modernising forces and "use it or lose" it mentalities are part of the regime of truth constructed by the leaders and play as important a role in governing the river as the dams themselves do. The combination of the material and the discursive composes, what I term, the *governmentality of a river***.** Governmentality theory distinguishes itself from alternative theories of rule, like Putnam's governance theory or Gramscian hegemony theory by looking at *how* power and rule work [Dean, 1999].

In this paper I argue that there are parallels between the decline or the Aral and the water disputes in the region. The Central Asian rivers have been made governable by certain practices that are expressions

of particular nature-society relations, distributions of power, and development strategies, yet these do not reflect the demands of local populations. In Soviet times, a governmentality that over-emphasised cotton productivity for a political centre far away (Moscow) led to the decline of the sea. After independence, multiple ways of governing the river emerged, favoured by different national elites that clash in form and content. The parallels suggest some important questions: who governs the rivers for whom, in what interests, and how?

MAKING A RIVER GOVERNABLE, SOVIET-STYLE

Irrigation has taken place in Central Asia for centuries, but it was the hydraulic mission of the Soviet Union that truly transformed the geography of Central Asia[1]. Making the river a manageable entity included the construction of dams, canals, the foundation of scientific institutions and a hydraulic bureaucracy, but also the discursive justification of large-scale irrigation and other interventions [Molle, Mollinga, & Wester, 2009]. Indeed, the transformation of the Syr Darya and Amu Darya Rivers was guided by a particular *governmentality of the river* that included both material and discursive "technologies of government".

It was water that brought the Russians to Central Asia in the first place. There is archaeological evidence that the areas around the Amu Darya and Syr Darya Rivers have been under intensive irrigation since at least 8000 years ago [Lewis, 1966]. When the Russians conquered Central Asia in the 1880s, about 2.5 million hectares were irrigated, but the Tsarist colonisers realised that this area could be increased easily and rapidly [Petrov 1894 in O'Hara 2000]. The region was seen as a *"reservoir of raw material [...] and a haven for land-hungry peasants"* [MacKenzie, 1974: 168]. Financing projects was difficult during Tsarist rule, but this changed when, after the Civil War, large state resources and energy could be directed to water development [Micklin 1991].

Nonetheless, managing Central Asia's water for irrigation proved quite a challenge. Scarcity itself was not the problem: on average there is sufficient water in the basin for the population to feed itself and grow cash crops for exports, [Wegerich 2002]. Instead there is spatial and temporal variability that makes irrigation complex [Nezlin et al. 2004]. Virtual all water comes from mountainous Kyrgyzstan, whereas the irrigation takes place in the plains of Kazakhstan and Uzbekistan. The vast majority of precipitation is in winter, but the growing season in summer. Moreover, there is huge inter-annual variability that is difficult to predict, see Fig. 2. This variation in river run-off has been a daily reality for the farmer and an inconvenience for the irrigation engineer. However, it also provided the Soviet planner with a highly complex problem. While the variability causes uncertainty in agricultural yields, achieving the goals of the 5-year plans became a huge challenge.

But river variability can be managed by building water storage facilities in the river and this was a solution close to the Soviet planners' hearts because it also offered a chance to demonstrate society's dominance over nature. Although the construction of dams and canals was nothing new in Central Asia, the size and pace at which modifications to the river's natural flow were introduced were unprecedented. Under Soviet rule hundreds of dams were constructed, canals were dug and artificial lakes were created, but the period is best characterised by a number of enormous state-led projects like the Kara Kum Canal, the reclamation of the Hunger Steppe, and Khrushchev's Virgin Lands Campaign [Hannan & O'Hara 1998; Rumer 1989]. Figure 3 demonstrates the enormous increase in dams and water storage facilities since the 1960s. Effectively,

[1] The hydraulic mission is the pervasive modernist idea that all freshwater resources in a basin should be used to benefit mankind. Its practices include the damming of rivers, construction of irrigation canals and, often large-scale, diversion schemes. Allan defines it as *"a feature of modernity, a term used to describe the processes of change in the industrialising North of the late nineteenth and the twentieth century"* (Allan, 2002: 28).

Fig. 2. Water flow measurements at the Toktogul site over the last century. Horizontal line is the average. There is a significant variability in water inflow over the years, making the irrigation systems complex to run without inter-annual storage facility. Graph constructed by author based on data from cawater-info.net, n.d.

the dams, canals and other large schemes produced a river that was governable by bureaucrats rather than by farmers.

The epitome of control over the Syr Darya was the Toktogul dam and reservoir. Where other dams were unable to deal with the inter-annual variability, the Toktogul was the only reservoir in the river that had the capacity to store water for multiple years. Its maximum capacity of 19.5 km^3 was of a different order of magnitude than the others. When the reservoir was commissioned in 1973 the supply of firm water resources downstream increased by more than 30% [Antipova et al. 2002]. With this dam completed, the natural cycles of the Syr Darya seemed *tamed* at last and nothing would stand in the way of development (and cotton production).

The construction of dams and canals was the physical manifestation of the governmentality of the river, which was guided by the modernist discourse of society's relation to nature following certain aspects of Marxist-Leninist ideology. Rivers are perceived to be part of a nature that needs to be controlled by mankind. This is because

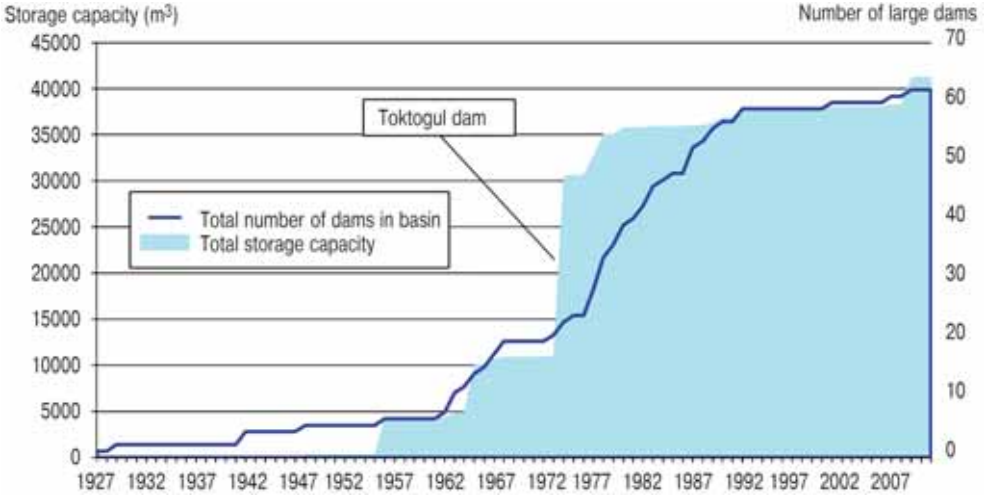

Fig. 3. Increase of number of dams and water storage capacity over time. The largest increase in storage capacity is the inauguration of the Toktogul reservoir. Graph constructed by author based on data from cawater-info.net, n.d.

an uncontrollable nature was equated with uncontrollable social norms, which was a real fear of the Soviet authorities [Oushakine 2004]. Zonn [1999] acknowledges the role of ideology in the water management and irrigation strategies of Soviet Central Asia. He argues that the concept of cotton self-sufficiency and the idea that development is directly related to land reclamation have contributed to the decision to divert water away from the rivers.

Indeed, the construction of the Toktogul was not only significant for its economic benefits, but also because it reaffirmed the power of the Soviet Union that placed society in a position to control nature. Slogans that celebrated its construction stated: *Naryn, serve the people!* According to Feaux De La Croix [2011: 495], *"Like other giant modernist projects, [...] the dam was an emblem of science altering geography to serve humanity".* The Toktogul and other reservoirs have made water seem like a free, common, and unlimited good and the Amu Darya and Syr Darya were stripped from their environmental, social, and cultural contexts. This had its implications on the volume of water that is being used in Central Asia's highly inefficient irrigation systems.

Through certain practices the river is made governable by bureaucrats and taken outside of its natural context. Although the concept of governmentality was conceived of by Michel Foucault to discuss the rule of societies [Foucault, 1991], it has frequently been used to describe the rule nature, and people in relation to nature too [Agrawal, 2005; Rutherford, 2007]. Governmentality theory suggests that the hydraulic mission is not innocent economic development, but the product of deliberate political strategies to serve the interests of certain elites.

The increased cotton output that followed the construction of the dams greatly benefited the ruling elites in Moscow and Tashkent, but certainly not everyone. The most well-known victim has been the Aral Sea and the people living around the sea. During the dam construction boom in the Syr Darya and Amu Darya River, the Aral Sea, as terminal lake in the basin, lost 90% of its volume [Micklin, 2007]. Desalination, heavy pollution, and dire economic and social decline were the consequences of this. The once large fishing industry collapsed completely [Glantz, 1998]. This ecological disaster is a direct consequence of Soviet strategy for managing the rivers, although these consequences were probably not intended.

The authorities had the illusion of a river that was perfectly manageable through the dams, irrigation canals, and central authority: an image of high-modernity. In fact, the Central Asians rivers were over-utilised, undermanaged and misappropriated causing, one of the worst man-made catastrophes [Spoor & Krutov, 2003]. The Aral Sea itself is seen as lost by most local and international observers. The international donor community supported the Central Asian states by founding, in 1992, the International Fund for Saving the Aral Sea. But in contrast to what its name may suggest *"its activities are no longer intended to save the Aral Sea, [because] it is too late to save the Aral Sea*"[2]. However, the underlying governmentality that caused the decline of the sea is, albeit in different forms, still there and potentially causing more worrying problems.

One singular vision on how to manage the water resources in the basin has split into multiple competing versions, after the dissolution of the Soviet Union in 1991. The five successor states all wanted to capture as much of the resources as possible, but their interests diverged. Kyrgyzstan, Uzbekistan, Tajikistan, Kazakhstan, and Turkmenistan now each have their own governmentality, their own ideas on how to govern their part of the river. Unfortunately, these governmentalities are at times opposed, potentially leading to violent conflict. In this conflict of interest, some observers

[2] Interview Tashkent June 2009, country director International Fund for Saving the Aral Sea.

have identified a risk for *water wars* [Cooley, 1984; Starr, 1991], including more recently a influential 2011 report by the US Senate Committee of Foreign Relations [Kerry et al., 2011]. Although I do not concur with the risk of *water wars* in Central Asia, the study of *why* and *how* these governmentalities have diverged remains important.

THE DISINTEGRATION OF THE SYR DARYA RIVER

It took decades to transform the Syr Darya into a governable river, but only a couple of years for the system to disintegrate and fragment. When in 1991 the Soviet Union collapsed, the five Central Asian Republics found themselves independent but facing massive challenges. The river system that was *made governable* on a basin scale became fragmented and prone to conflicts. This section address the apparent paradox of a water management status quo inherited from a unitary polity but different and diverging politics and economic systems. The Toktogul dam, for all its importance in the earlier development of the Syr Darya River, produced a water-energy nexus that is difficult to manage because of the disintegration and fragmentation of the river system.

A year after the dissolution of the Soviet Union, the water ministers of the Central Asian states declared in Almaty that the region's water resources would be governed based on the principles of equality and mutual benefit [Wegerich 2004]. In practice, this meant that the Soviet status quo of water governance would remain in place. Some new organisations were introduced, such as the Interstate Commission for Water Coordination (ICWC) and its executive Basin Management Organisations (BVOs), but the allocation of water was in line with Soviet standards: Uzbekistan receives nearly 52% of all the water in the Aral Sea basin and Kyrgyzstan only 4% [McKinney 2003]. There have been ample attempts at formulating a regional agreement that acknowledges the post-1991 geopolitical setting, but most have failed. In the words of a spokesperson of Kyrgyzstan's Ministry of Foreign Affairs: *"more than 20 regional agreements on water have been signed, but most are not working"*[3]. Indeed, it appears that it is all paperwork and little action.

At the same time, the five Central Asian states have diverged widely economically and politically. The economies are no longer part of a unitary economic space, trade barriers have arisen, and protectionism and ideas of self-sufficiency are guiding policy-makers [Spechler 2002]. Politically, Kyrgyzstan embraced more liberal reforms, whereas Uzbekistan and Kazakhstan remained wedded to authoritarian state forms. Moreover, the different states all used notions of nationalism to cultivate legitimacy at home. A component of this modern nationalism was the construction of a discourse of danger vis-à-vis the neighbouring states [Megoran 2002].

The combination of economic decline, authoritarian regimes, and strong nationalist tendencies has prevented economic or political cooperation in the last two decades. This is particularly ironic given the integrated economic system of the area during Soviet times. Borders that were previously purely administrative delineations became enforced and militarised realities [Megoran 2004]. The regional electricity transmission network, one of the major achievements of the Soviet times, was partly abandoned. Leaders liked to produce the perception of regional cooperation through a set of high-level summits, but none led to badly-needed reforms of the water governance system [Gleason 2001]. Obviously, this had negative repercussions for the Aral Sea, but the relation between the states suffered too.

This is the central paradox in the governance of the Syr Darya River: the riparian states have pledged to uphold the Soviet status quo or river management, yet they have diverged dramatically at other levels. The new states

[3] Interview Bishkek September 2011, director Ministry of Foreign Affairs.

have all different and widely divergent views on how to manage the river and what to do with the water. And the controversy ultimately comes down to the single largest reservoir in the river, the facility that virtually controls the flow of the river: the Toktogul.

Because the Toktogul holds the largest reservoir and because it is the most upstream in the river system, the volume and timing of water discharges affect the entire flow of the Syr Darya River. It was of vital importance to the cotton industry downstream and to this end the authorities agreed in 1984 that in a normal year, 75% of the water should be discharged in summer [Sharma et al. 2004]. That the discharge of water could be used to generate electricity was recognised, but was initially seen as a pleasant side benefit rather than a goal *an sich* [Easter et al. 1998].

Yet the hydropower potential proved to be enormous and four more hydroelectric power plants were constructed between 1973 and 1990 right downstream of the reservoir. Today, this cascade accounts for 95% of total electricity generation in Kyrgyzstan with an installed capacity of 2870 MW and is considered to be the country's most valuable asset [Murphy et al. 2011]. Controlling the river flow and generating electricity are intricately linked. Discharging 1 m^3 from the reservoir generates 1 kWh[4]. Water in the reservoir is multiple: both an input for cotton irrigation and electricity. The Toktogul has produced a water-energy nexus and the seeds for political conflict.

Before independence, the majority of water was discharged from the reservoir in summer and the electricity generated in the process distributed among the integrated Central Asian transmission grid. In turn, Kyrgyzstan received ample supply of coal, gas and other fuels. When this barter trade system broke down, the Kyrgyz consumers realised that electric heating was much cheaper because of the massive supply from the Toktogul hydroelectric cascade. As a result, water is increasingly discharged in the winter months, when electricity demands in Kyrgyzstan are highest, and less and less water reaches the agricultural fields in Uzbekistan and Kazakhstan during the vegetation season [Sievers 2001].

The gradual shift in Toktogul's operating regime has heightened tension between Kyrgyzstan and Uzbekistan (and to a lesser extent Kazakhstan). The downstream states have consistently complained about the diminishing supply of water. Uzbekistan has responded to low summer water discharges by cutting down gas supplies or closing off the border with Kyrgyzstan [Torjesen, 2007]. The violent rhetoric expressed by the neighbours suggests a risk for geopolitical conflict, although nothing of the sort has happened yet [Sievers 2001]. Nonetheless, the International Crisis Group has reported that Uzbek army units have prepared to take the Toktogul by force, if deemed necessary [ICG 2002]

The inconvenient reality is that the geopolitical changes of 1991 have bared the multiple nature of the Toktogul. The dam, reservoir and cascade that were once hailed as progress that *tamed* the river [Azrilyan, 1983], produced a river that could be managed according to *multiple* governmentalities. The multiplicity raises numerous questions on its purpose, who is authorised to govern the river, and on the nature of the river itself. In fact, both the decline of the Aral Sea and the present tension between the riparian states is caused by the governmentality of the hydraulic mission. In this modernist experience society may have won the battles with nature, but through its efforts it may have created a battle of society versus society in turn.

Water-energy nexuses are not unique, but when the multiplicity of the Toktogul became reality Central Asia experienced a broader, almost deliberate fragmentation of water management, by sector, in knowledge, and spatially, that has had serious implications for the politics of the river. Firstly, the efforts towards cooperation have failed to account

[4] Interview Bishkek September 2011, consultant Ministry of Energy.

for the energy side of the equation [Sievers 2001]. Economic analyses from the World Bank have demonstrated the value of both water for irrigation and water for electricity generation and have proposed a payments regime that acknowledges this value [Sharma et al., 2004]. However, Uzbekistan's President Islam Karimov has insistently stated that the regional forums are for water only, not for energy. The World Bank's senior water expert stated that the repeated failure of Uzbek government officials to engage in the water-energy dialogue has prevented further action and blocked the finance for large projects[5].

Secondly, observers have noted that the data and knowledge on climate, water flow and agriculture is increasingly fragmented. It has been suggested that even the BVO has multiple data sets [Wegerich, 2004]. This is according to the Institute for Water Problems, a organisation that falls within the umbrella of the Kyrgyz Academy of Sciences, one of the reasons why Kyrgyz officials do not trust the Uzbeks when it comes to water: *"I am shocked by how water professionals know everything but play with facts and figures for political reasons. It is these [Uzbek] people that make a political issue out of water management"*[6]. The sentiment is similar on the other side of the border.

Thirdly, as a consequence of the fragmentation of the water and energy sectors and of the knowledge base the main storage facilities in the river have formally stopped coordinating their water discharge patterns. Specialists from the Kyrgyz State Committee for Water Resources acknowledge that was the purpose of the river-wide governance structure to connect the operation of the Toktogul (Kyrgyzstan), Kairakkum (Tajikistan), and Chardarya (Kazakhstan) dams in order to optimise production, *"but the political climate for this has been lacking"*[7]. The dams in the different countries seem to be governed by different motives. According to one influential donor: *"nothing is decided formally but all governance happens at an ad hoc basis. Although the states have been able to manage past crises, it is not a stable situation and the governance regime is always at the brink of disaster"*[8].

If there are multiple *governmentalities* managing the water, is the Syr Darya still governed as a river? The occasional floods, the low-levels of the Toktogul in certain years, and the water shortages during the vegetation seasons suggest otherwise.

WHAT IS WATER? DIVERGING DISCOURSES ON THE SYR DARYA

The water management structures in the river are still more or less the same as those of Soviet times, but the discourses guiding their operations are not. Both Uzbekistan and Kyrgyzstan have *sanctioned discourses* produced by small elites that guide policy-making. More often than not, these discourses benefit the elites rather than the country as a whole, but they are the main drivers of international relations.

The sanctioned discourse of Uzbekistan is driven by the ideology designed by Islam Karimov, the country's president (March, 2003). Given the highly authoritarian and repressive nature of the Uzbek state, there is little open competition to the ideology of the sanctioned discourse [Melvin 2000]. The production of Kyrgyzstan's official discourse is characterised by a higher level of political competition than those of the other Syr Darya riparian states, but the production of knowledge is still top-down with a small political elite having a virtual monopoly on agenda-setting. In this section I look at how the sanctioned discourses of Uzbekistan and Kyrgyzstan have diverged since independence. The central point of tension is the nature of the water itself.

[5] Interview Bishkek September 2011, water expert World Bank.
[6] Interview Bishkek June 2009, officer Institute for Water Problems.
[7] Interview Bishkek September 2011, director State Committee for Water Resources.
[8] Interview Bishkek September 2011, country officer GIZ.

The view from Bishkek

The clearest exponent of the official Kyrgyz water discourse is the adoption of the 2001 Water Code that aimed to reform the country's water sector[9]. The code includes a provisional law that allows Kyrgyzstan to charge downstream countries for the storage of water in its territories, the maintenance of structures and reservoirs, and the loss of income by foregone energy production [Heltzer 2003]. The reforms confirm a departure from the Soviet status quo that was already initiated under President Askar Akayev in the 1990s.

The controversial move from an integrated Soviet system with water as a common good towards the recognition of its economic value and the implicit commodification of water followed, according to a director at the Ministry of Water and Agriculture, from the breakdown of the Soviet economic system and the failure of cooperation. He argues that when Kyrgyzstan was charged market prices for oil, gas, and other commodities that used to be free, its leaders realised that water was its only resource and rather valuable for the agriculture downstream[10].

There appears to be a clear distinction between what Kyrgyz official policy proposes and what is pursued in practice. The ratification of the Water Code was rather an expression of the official discourse than an actual policy goal. The Kyrgyz leaders attempted to redefine the underlying conditions of regional water management in their favour, by challenging the Soviet and post-Soviet water management paradigm. In terms of the debate this has fuelled, this has been a successful yet dangerous strategy, because of the vehement polemic it has generated in policy circles throughout the region. The departure from Soviet ways of thinking towards neoliberal reforms allowed the legislation to pass. On the other hand, the legislation itself fuels the further development of a mentality of water management that favours liberal economic thinking on water governance. Although this discursive strategy has little direct impact on the water itself, it moves the Kyrgyz governmentality even further away from the Soviet – or Uzbek – governmentality of the river, and therefore exacerbates the tension.

In broader terms, the 2001 reforms are evidence of the globalisation of the Kyrgyz water policy. Many of the concepts in in the legislation, such as Water User Associations, Integrated Water Resources Management, and water pricing, are part of a global discourse on water management that is pushed by international financial institutions and the donor community [Kemelova & Zhalkubaev 2003]. The wide presence of western donors since 1991 accelerated economic and political liberalisation more rapidly than in the neighbouring states and this partly accounts for the divergence for alternative governmentalities [Abazov 1999].

In part, the Kyrgyz governmentality that emphasises the economic value and commodification of water is a response to the failure of the countries to cooperate post-1991. Simultaneously, this position is an obstacle for further cooperation, as Uzbekistan refuses to agree on this nature of water. This conflict on *what water is* has led to large distrust towards the regional institutions governing the water resources. According to the Kyrgyz Institute for Water Problems: *"Kyrgyzstan cannot cooperate with the ICWC and the BVO-Syr Darya [the regional institutions] because the organisations are dominated by Uzbek"* [11]**.** Partly because of this, there is an uneasy tension between the post-Soviet realities of water governance and the official water discourse in Kyrgyzstan.

[9] The total extent of the reform is less relevant for this discussion, but the code included a domestic and international component. Domestically, it also introduced the idea of water pricing, as well as Water User Associations and Integrated Water Resources Management. See Herrfahrdt-Paehle (2008) for a further discussion of the 2001 Water Code.

[10] Interview Bishkek August 2009, director Ministry of Water and Agriculture.

[11] Interview Bishkek August 2009, officer Institute for Water Problems.

The view from Tashkent

Uzbekistan's sanctioned discourse is rather different from Kyrgyzstan's. In Uzbekistan there are strong vertical links between the state ideology, the water discourse and practice; the discourse is therefore less contested. Central to the official water discourse is the idea that water is supposed to be free and readily available. The Deputy Minister of Agriculture and Water stated that *"we [the Uzbeks], cannot be punished for being born downstream"* [12]. The concept of water as a free good has its origin in the Soviet Union where to the farmers and local planners water supply never seemed to be a problem, partly because of the hydraulic mission described above. Moreover free water has a pseudo-religious significance and it is claim that water pricing is impossible because *"water comes from the gods"* [13].

The idea of free water is important in the Uzbek state-planned economy as well as for the legitimacy of the Karimov regime. Agriculture, notably cotton and rice, accounts for one third of its GDP, 60% of foreign exchange earnings, and 45% of employment. This system is not only based on the actual provision of free water, but also on the discursive idea that water should be a free good. At the same time, the authoritarian regime derives part of its legitimacy from the praxis of this system: as long as the population believes that Karimov ***cum suis*** can take care of free water and cheap food, they may be willing to accept his authoritarian rule [March 2003a; Adams 2010].

Therefore, any change in the status quo is perceived as a threat by Uzbek elites. Uzbekistan's agriculture-driven economy is still planned from above [Spechler 2008] but it now depends on Kyrgyzstan for its water supply. The trend of increased Toktogul discharges in winter, visible in figure 3, has been explained by the senior Uzbek water official as ***'greedy commercial interests in Kyrgyzstan'***[14], even though this argument misses out on the large power shortages in large parts of Kyrgyzstan. Moreover, the concept of water pricing is rejected by two Uzbek water officials in a 2003 publication, where Dukhovny and Sokolov argue that the commodification of water causes the excesses of capitalism with people aspiring to be the nouveau riche speculating in water markets. Instead, ***"society needs to make such economic activity unviable"*** [Dukhovny & Sokolov 2003: 32].

Given language like this it is not surprising that Uzbekistan's opinion-makers have misinterpreted and/or rejected the reforms proposed by the 2001 Kyrgyz Water Code. The proposal for sharing the maintenance and storage costs has been seen as an attempt to commodify and privatise the water itself. Some went as far to state that Kyrgyzstan is asking money for resources that are coming from god[15]. Similarly, the current operating regime of the Toktogul is described by the Deputy Minister for Agriculture and Water as *"Kyrgyzstan trying to make a desert out of Uzbekistan"*. Ontological disagreement on the nature of water is not helpful for finding a practical solution to govern the region's water, and the governmentalities are diverging further because of the polemic language used on both sides.

What is water?

If discourses are such a fundamental part of the governmentality of a river, how can we understand the divergence between the different governmentalities? When Central Asia was part of the Soviet Union, there was a single and relatively coherent governmentality driven by a discourse based on Marxist-Leninist ideas of development and society's relation with nature. However, as the Central Asian water governance systems disintegrated after independence, different ideas on *how* the Syr Darya should

[12] Interview Tashkent July 2009, Deputy Minister of Water and Agriculture.
[13] Interview Almaty September 2009, Uzbek representative International Fund for Saving the Aral Sea.
[14] Interview Tashkent July 2009, Director Scientific Information Centre Interstate Committee for Water Coordination.
[15] Interview Tashkent July 2009, Deputy Minister of Water and Agriculture.

be ruled diverged along with the political and economic systems of the riparian states. This introduced the central paradox: the post-Soviet water status quo was based on the Soviet governmentality, following the 1992 Almaty agreement, but it turned out that multiple governmentalities existed among the river basin states.

The tension between these governmentalities has become clear in the last decade and takes place at two distinct levels. On the one hand there is a dispute between Uzbekistan and Kyrgyzstan, and to a lesser extent Kazakhstan, on how the Toktogul *should* be operated. Is river made governable for irrigation or for electricity production? On the other hand there is the fundamental disagreement on what the water is. The Kyrgyz governmentality acknowledges the economic value of water but the Uzbeks cling to Soviet ideas of water as a free and common good. Perhaps this difference can be explained by diverging geopolitical interests. However, as discussed above, the production of the official discourses is intimately linked to the legitimacy of the respective regimes, which suggested that it they have reasons beyond a motivation for resource capture. The interaction of the dispute over the Toktogul's operation and the fundamental disagreement on the nature of water make water management a highly complex problem.

This interaction demonstrates that the politics of water in Central Asia goes beyond plain resources capture. It shows how the geopolitical changes after the fall of the Soviet Union have revealed the inherent multiplicity of water and of the large dams. Water in the Toktogul reservoir is transformed by discharging it at a certain time and under certain conditions. The politics in the basin is then about what the water ***is*** and what it *should be*; this type of politics is termed ontological politics by Mol [1999]. There are different ideas on the nature of water and ultimately not even an agreement on what the conflict is about.

CONCLUSIONS: WHAT ABOUT THE GEOPOLITICS?

Both the decline of the Aral Sea, and the potential conflict between the states are driven by the same modernist governmentality of the river. The hydraulic mission has been a regime of truth that introduced large-scale engineering solutions to avert the variability of the river and to make it more productive. Although the productivity has certainly increased, the practices and discourses associated with this transformation of nature have had negative externalities too. The Soviet governmentality was presented as the single, and uncontested way to manage water resources. After independence however, the ways to manage water resources proved to be "multiple": there are alternatives for operating the Toktogul, for instance. The divergence of governmentalities can have negative implications for the relations between the riparian states.

Discussions of knowledge production and discourse formation are frequently neglected in analyses of the water problems in Central Asia. By looking at the hydro-politics of Central Asia through governmentality theory, I aimed to contribute to the understanding of the region's geopolitics, by pointing at why the states cannot come to agreement. In the absence of any legal frameworks, the politics is about power. Uzbekistan is considered to be the ***hydro-hegemon*** in the basin [Wegerich, 2008], but Kyrgyzstan has an edge simply because it controls the operations of the Toktogul reservoir. Discourses are crucial for understanding these relations of power.

In fact, the concept of ***discourse*** has been at the heart of the body of literature of critical geopolitics [O'Tuathail & Agnew, 1992]. This is because *"strategies of power always require the use of space and, thus, the use of discourses to create particular spatial images, primarily of territory and boundaries inseparable from the formation and use of power"* [Sharp 1993:492]. The production of different spatial images of

what the water in the Toktogul reservoir is, of whether it could have a direct economic value, and of how the river should be governed is one of the key spaces where the hydro-politics takes place. Looking at discourses also avoids the simplified conclusion of imminent water wars, but it does highlight the other ways in which the conflicts can express themselves and this deserves due attention.

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REFERENCES

1. Adams, L. (2010). The Spectacular State: culture and national identity in Uzbekistan. Durham, NC: Duke University Press Books.

2. Agrawal, A. (2005). Environmentality: technologies of government and the making of subjects. Durham, NC: Duke University Press Books.

3. Allan, J. A. (2002). The Middle East water question: hydropolitics and the global economy. London: I.B. Tauris.

4. Amsler, S. (2007). The politics of knowledge in Central Asia: Science between Marx and the market (p. 205). Abingdon & New York: Routledge.

5. Arsel, M., & Spoor, M. (2010). Water, Environmental Security and Sustainable Rural Development: Conflict and Cooperation in Central Eurasia (p. 284). Abingdon & New York: Routledge.

6. Azrilyan. (1983). Behind the decisions of the 26th CPSU Congress: Taming the Naryn. Current Digest of Post-Soviet Press, 35(19), 23.

7. Cawater-info.net. (n.d.). Syrdarya River basin. ICWC. Retrieved December 10, 2011, from http://cawater-info.net/syrdarya/index_e.htm

8. Cooley, J. K. (1984). The war over water. Foreign Policy, (54), 3–26.

9. Dean, M. (1999). Governmentality: power and rule in modern society (p. 229). London: Sage Publications.

10. Easter, K. W., Rosegrant, M. W., & Dinar, A. (1998). Markets for Water: Potential and Performance. Berlin & Heidelberg: Springer-Verlag.

11. Feaux De La Croix, J. (2011). Moral Geographies in Kyrgyzstan: how pastures, dams and holy sites matter in striving for a good life. Unpublished PhD thesis. University of St. Andrews: Social Anthropology.

12. Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.), The Foucault Effect: Studies in Governmentality (pp. 87–104). Chicago: University of Chicago Press.

13. Glantz, M. H. (1998). Creeping Environmental Phenomena in the Aral Sea Basin. In I. Kobori & M. H. Glantz (Eds.), Caspian, Aral, and Dead Seas: Central Eurasian Water Crisis (pp. 25–52). Tokyo: United Nations University Press.

14. Gleason, G. (2001). Europe-Asia Studies Inter-State Cooperation in Central Asia from the CIS to the Shanghai Forum. Europe-Asia Studies, 53(7), 1077–1095.

15. Herrfahrdt-Paehle, E. (2008). Two Steps Forward, One Step Back: Institutional Change in Kyrgyz Water Governance. In W. Scheumann, S. Neubert, & M. Kipping (Eds.), Water Politics and Development Cooperation: Local Power Plays and Global Governance. Berlin & Heidelberg: Springer-Verlag.

16. Herrfarhdt-Paehle, E. (2010). The politics of Kyrgyz water policy. In M Arsel & M. Spoor (Eds.), Water, environmental security and sustainable development. Abingdon & New York: Routledge.

17. Jones-Luong, P. (2002). Institutional Change and Political Continuity in Post-Soviet Central Asia: power, perceptions, and pacts. (M. Levi, Ed.)Science (p. 345). Cambridge: Cambridge University Press.

18. Kemelova, D., & Zhalkubaev, G. (2003). Water, Conflict, and Regional Security in Central Asia Revisited. New York University Environmental Law Journal, 11, 479–502.

19. Kerry, J. F., Boxer, B., Menendez, R., Cardin, B. L., Casey, R. P., Webb, J., Shaheen, J., et al. (2011). Avoiding Water Wars: water scarcity and Central Asia's growing importance for stability in Afghanistan and Pakistan. (pp. 1–28). Washington D.C.: US Senate.

20. Lewis, R. A. (1966). Early Irrigation in West Turkestan. Annals of the Association of American Geographers, 56(3), 467–491.

21. MacKenzie, D. (1974). Turkestan's Significance to Russia (1850–1917). Russian Review, 33(2), 167–188.

22. March, A.F. (2003). From Leninism to Karimovism: Hegemony, Ideology, and Authoritarian Legitimation. Post-Soviet Affairs, 19(4), 307–336.

23. Megoran, N. (2002). The Borders of Eternal Friendship? The politics and pain of nationalism and identity along hte Uzbekistan-Kyrgyzstan Ferghana Valley boundary, 1999–2000. Unpublished D.Phil thesis, University of Cambridge: Geography.

24. Megoran, N. (2004). The critical geopolitics of the Uzbekistan–Kyrgyzstan Ferghana Valley boundary dispute, 1999–2000. Political Geography, 23(6), 731–764.

25. Micklin, P. (1991). The Water Management Crisis in Soviet Central Asia. The Carl Beck Papers in Russian and East European Studies, No. 905.

26. Micklin, P. (2007). The Aral Sea Disaster. Annual Review of Earth and Planetary Sciences, 35(1), 47–72.

27. Micklin, P.P. (1988). Desiccation of the Aral Sea: A Water Management Disaster in the Soviet Union. Science, 241(4870), 1170–1176.

28. Molle, F., Mollinga, P. P., & Wester, P. (2009). Hydraulic bureaucracies and the hydraulic mission: flows of water, flows of power. Water Alternatives, 2(3), 328–349.

29. Murphy, J., Hoover, P., & Thornton, D. (2011). Preliminary Findings: PHASE 1 of Management Diagnostic of Distribution, NESK & Generation Companies. Presentation to the Jogorky Kensesh (p. 19). Bishkek.

30. Nezlin, N.P., Kostianoy, A.G., Lebedev, S.A. (2004). Interannual variations of the discharge of Amu Darya and Syr Darya estimated from global atmospheric precipitation. Journal of Marine Systems, 47(1–4), 67–75.

31. O'Tuathail, G., Agnew, J. (1992). Geopolitics and Discourse: Practical Geopolitical Reasoning in American Foreign Policy. Political Geography, 11, 190–204.

32. O'Hara, S. (2000). Lessons from the past: water management in Central Asia. Water Policy, 2(4–5), 365–384.

33. Petrov, N. (1894). Ob irrigatsiia I ee znachenie v Turkestane. Tashkent, Uzbekistan.

34. Rutherford, S. (2007). Green governmentality: insights and opportunities in the study of nature's rule. Progress in human geography, 31(3), 291–307.

35. Sharma, R., Markandya, A., Ahmad, M., Isakov, M., & Krishnaswamy, V. (2004). Water and Energy Nexus in Central Asia: Improving regional cooperation in the Syr Darya basin (p. 59). Washington D.C.

36. Sharp, J. P. (1993). Publishing American identity: popular geopolitics, myth and the Reader's Digest. Political Geography, 12(6), 491–503.

37. Sievers, E. W. (2001). Water, conflict and regional security in Central Asia. New York University Environmental Law Journal, 10, 356.

38. Spechler, M. C. (2002). Regional Cooperation in Central Asia. Problems of Post-Communism, 49(5), 42–47.

39. Spechler, M. C. (2008). The Political Economy of Reform in Central Asia: Uzbekistan under Authoritarianism. (p. 193). Abingdon & New York: Routledge.

40. Spoor, M, & Krutov, P. (2003). The power of water in a divided Central Asia. Perspectivces on Global Development and Technology, 2(3), 593.

41. Starr, J. R. (1991). Water wars. Foreign Policy, (82), 17–36.

42. Torjesen. (2007). Understanding Regional Co-operation in Central Asia 1991–2004. Unpublished D.Phil thesis, (Oxford University), 214–265.

43. UNEP. (2005). Water management in Central Asia: state and impact. UNEP/GRID-Arendal Maps and Graphics Library. Retrieved from: http://maps.grida.no/go/graphic/water-withdrawal-and-availability-in-aral-sea-basin

44. Wegerich, K. (2002). Natural Drought or Human Made Water Scarcity in Uzbekistan. Central asia and the Caucasus, 14(2).

45. Wegerich, K. (2004). Coping with disintegration of a river-basin management system: multi-dimensional issues in Central Asia. Water Policy, 6, 335–344.

46. Wegerich, K. (2008). Hydro-hegemony in the Amu Darya Basin. Water Policy, 10(supplement 2), 71–88.

47. Wolf, A.T. (1998). Conflict and cooperation along international waterways. Water Policy, 1(2), 251–265.

48. Yoffe, S., Fiske, G., Giordano, M., Giordano, M., Larson, K., Stahl, K., & Wolf, A. T. (2004). Geography of international water conflict and cooperation: Data sets and applications. Water Resources Research, 40.

49. Zeitoun, M., & Warner, J. (2006). Hydro-hegemony – a framework for analysis of trans-boundary water conflicts. Water Policy, 8, 435–460.

50. Zonn, I. S. (1999). The Impact of Political Ideology on Creeping Environmental Changes in the Aral Sea Basin. In M.H. Glantz (Ed.), Sustainable Development and Creeping Environmental Problems in the Aral Sea Region. Cambridge: Cambridge University Press.

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