



# ILLUSTRATING CO-EXISTING CONFLICT AND COOPERATION IN THE ARAL SEA BASIN WITH TWINS APPROACH

Suvi Sojamo

Department of Biological and Environmental Sciences, University of Helsinki, Finland

*The Aral Sea Basin has seen several efforts to develop transboundary water resources management. However, despite cooperative actions disputes have characterized the hydropolitics in the region. Many studies on the basin relations have focused on conflict intensity on one dimensional axis and neglected the importance of power asymmetries and interaction in a wider political context. This paper intends to illustrate hydro-hegemonies (Zeitoun & Warner, 2006) and co-existing conflict and cooperation in the Aral Sea Basin with Transboundary Freshwater Interaction NexuS (TWINS) (Mirumachi, 2007). The aim is thus to draw trajectories for the basin relations and to identify drivers for conflict and cooperation for future scenarios.*

## 1 Introduction

Water issues have been high on the political agenda of the states in Central Asia since their independence in 1991. Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan inherited a challenging legacy of regionally integrated but imbalanced water governance, deteriorated water management infrastructure harnessed for cotton monoproduction and an environmental and socio-economic disaster of the Aral Sea from the Soviet Union. In order to avoid dislocations in the

turbulence of independence, the states signed the Almaty Agreement in February 1992 where they established the Soviet Era energy-water allocations, promising to refrain from unilateral actions and to promote exchange of information. The states also saw a need to continue regional administration, and thus preserved the Soviet-time Basin Valley Organizations (BVOs) for Syr Darya and Amu Darya and created an Interstate Commission for Water Coordination (ICWC). These initial decisions to retain the Soviet management status-quo have been followed by a number of proclamations by the states about the water reform. However, reformative changes to combat the water crisis have not been able to overcome the dysfunctions in the established system. Since the downstream states have struggled in the economic transition from over-reliance on water-consuming cotton to more

---

Corresponding author:

Suvi Sojamo

Environmental Science and Policy

Department of Biological and Environmental Sciences

P.O. Box 56 Viikinkaari 9

FI-00014 University of Helsinki, FINLAND

E-mail: suvi.sojamo@gmail.com

sustainable forms of production and the upstream states are dependent on their hydropower potential, water continues to be a scarce commodity. Despite hundreds of agreements and willingness to solve the evident basin-wide problems, the state of the environment and welfare of the societies in the Aral Sea Basin remains still critical today (Glanz, 2005; Weinthal, 2006).

In order to understand the hydropolitics and the state of transboundary water management in the Aral Sea Basin, one must take in account that they are rooted in geopolitical power play. Imbalanced power relations between the states have been claimed to be the reason for the establishment of the downstream favouring Soviet status-quo at the time of independence and power-asymmetries are clearly complicating the basin water management today (Allouche, 2007). Central Asia has been among the most peaceful regions in the former Soviet Union as Tajikistan alone has experienced large-scale civil conflict in 1992, but the basin has also been seen as prone to conflicts about water as hydro- and energy-imperatives of upstream and downstream states have started to collide (see e.g. ICG, 2002; Allouche, 2007; Wegerich, 2008).

The Soviet policy in Central Asia has been claimed to have been based on “divide and rule” (Kubicek, 1997; O’Hara, 2000), but on the other hand, by making the states strongly dependent on each other, Moscow’s motives might have been more on “integration and ruling” (Wegerich, 2008). Initially, the five states were forced to cooperate, but instead of forming a strong regional union, they have suffered from their dependence on each other while rebuilding their national identities and economies. The disruption of Soviet-time economic ties has revealed the advantages and disadvantages of the five countries in terms of natural resources and geographic location. According to agreements, the upstream states are allowed to use their hydropower facilities to produce electricity in summer when the downstream states also need water for irrigation, but in recent years upstream Kyrgyzstan and Tajikistan have run the plants also in harsh winters which has caused downstream flooding in that season and water shortages in summer, leading

to bilateral disputes. New conflicts have also been rising regarding operation and maintenance costs of the water infrastructures, which are currently on the responsibility of the upstream states (Glantz, 2005). Control and enforcement mechanisms no longer function and the states now often accuse each other of exceeding agreed quotas and failing in barter agreements (Wegerich, 2008).

In the past ten years, individual needs and national interests have continued to alienate these countries, prompting them to look for new trade partners instead of regional integration. Hence, it is not any more only Moscow, but also Washington, Beijing, Ankara and Tehran who mix the geopolitics in the region. Efforts to rebuild Afghanistan put yet more strain on water supplies in the upsprings of the rivers running to the Aral Sea. On the other hand, third parties and donors including the World Bank, the Global Environmental Facility (GEF), USAID, UNEP, UNESCO and European Union have invested in development projects in the basin ranging from environmental restoration to public awareness raising. Unfortunately, lack of regional coordination has often diminished their effectiveness. There has been an oversupply of poorly coordinated actions, for which not only the states and basin organisations, but also donors can be blamed. This has made the states suspicious of external intrusion as they have a long history of foreign rulers mismanaging their water resources (see e.g. O’Hara, 2000).

Despite several efforts to develop transboundary water management in the region, it is truly questionable whether the current water governance of the Aral Sea Basin is sustainable. Recently, *Integrated Water Resources Management* (IWRM) (GWP, 2003) has been widely applied in Central Asia, but as a method, it has been claimed to lack a necessary understanding of differences in political economies and asymmetric power behind allocations (Allan, 2003). Even seemingly non-politicized local development projects can be jeopardized, not to speak of basin wide actions, if water in the wider context of political interaction is ignored. Hence, holistic approaches to picture politics of water and water management are

needed. This paper utilizes one such approach, *Transboundary Waters Interaction Nexus* (TWINS) (Mirumachi, 2007), which is based on the framework of *hydro-hegemony* (Zeitoun & Warner, 2006). Mirumachi & Allan (2007) have proposed TWINS as a way to analyse and observe how the dynamics of power play out in water governance. They argue that for successful water allocation and management, there must be consideration about how the intensities of conflict and cooperation in transboundary relations and development of the political economy change over time (Mirumachi & Allan, 2007). Zeitoun and Mirumachi (2008) emphasize that not all cooperation is good nor all the conflicts are bad for successful water management. Progress in transboundary water management is a result of interaction for which drivers have to be identified.

Based on the analysis of given speech acts and water events in Central Asia in the context of water governance, the aim of this paper is to illustrate the co-existing conflict and cooperation, hydro-hegemonies and the development of political interaction in the Aral Sea Basin with TWINS approach.

## 2 Framework of hydro-hegemony and TWINS approach

The post-Cold War discourse on hydropolitics has been actively debated (for a survey, see e.g. Zeitoun & Mirumachi, 2008). It has evolved from popular 1990's dystopia of water wars via statements of their irrationality and lack of historical evidence (Wolf *et al.* 2003) and theory of environmental conflict prevention and solving (see e.g. Beach *et al.* 2000) to current understanding of *co-existing*, enduring conflict and cooperation in a power-determined context (see e.g. Zeitoun & Warner, 2006; Zeitoun & Mirumachi, 2008). Transboundary water institutions as being among the first international embodiments of *global governance* have influenced the building of regime theory in international environmental politics (Finger *et al.* 2006), but thus, when applied to hydropolitical analysis, the theory cannot really see the asymmetric power in its own background.

Many studies of the hydropolitics of the Aral Sea Basin thus far, including UNESCO's from *Potential Conflict to Cooperation Potential* (PC-CP) program (UNESCO, 2003) and Wolf & Newton's (2008) study and conflict intensity scaling of the basin events have seen conflict and cooperation only as an opposite ends of a single axis. Treaties and institutions have been seen as indicators of collaboration. In result, in these analyses the Aral Sea Basin has been seen as rather cooperative, whereas e.g. Sievers (2001), ICG (2002), Weinthal (2006) and Allouche (2007), concentrating more on a wider context of political interaction, have also warned of potential conflicts on water in the region.

Conflict and cooperation in transboundary water management are not on a continuum progressing from irrational individualistic conflict to rational collective cooperation (Zeitoun & Mirumachi, 2008). Acceded conventions or agreements are not necessarily accurate indicators of cooperation, which is highly evident also in the Aral Sea Basin. According to Zeitoun & Warner (2006) and Mirumachi & Allan (2007), truly effective cooperation in transboundary water management is often hindered because of imbalanced power and economic relations. Absence of conflict does not necessarily mean there to be truly fruitful collaboration as *hydro-hegemon*s can dominate the seemingly non-politicized or cooperative politics. This can be done by using water resource control strategies such as '*resource capture*' (e.g. land acquisition, land annexation or the construction of large-scale hydraulic works), '*containment*' (the stronger state may seek to influence the weaker riparian towards compliance through e.g. treaties in its favour) and/or '*integration*' (by "building-in" to a regime benefits that may be more equitably distributed than the water itself, a hydro-hegemon may concede some of the privileges offered through its relative power). The strategies are executed through '*coercive*', '*ideational*' or '*bargaining*' power tactics that are enabled by the exploitation of existing power asymmetries within a weak international institutional context (Zeitoun & Warner, 2006: 444-446.)

In the case of the Aral Sea Basin it has been now widely recognized both in and outside of the region that IFAS (International Fund for the Aral Sea) and ICWC have failed to sustain dialogues they have started (ICG, 2002) – power in the decision making level is imbalanced and water management is separated from environmental management in the administrative level leaving space to individualistic and short-sighted policies and hegemonic actions. In some cases, states may not have to go through interactions over water allocation and management, as they can solve their water resource needs by trading in water intensive commodities or manufacturing water (Mirumachi & Allan, 2007), but the states in Central Asia are clearly not capable of that yet.

The typologies and driving forces behind hydropolitics can be illustrated by placing the water events of the basin on the three-dimensional TWINS field that is constructed of the axis for *cooperation intensity*, *conflict intensity* and *robustness of political economy* (Fig. 1.). The diagram provides analytical space to trace the trajectory of interacting riparian relations through time. As *securitization* of water

issues, making them a part of national security, and sanctioned discourse of states make politics of water more complex than they first seem, the trajectories for transboundary relations can show how power manifests in water allocation, development and management (Mirumachi & Allan, 2007.)

For classification of conflict intensity in transboundary water relations, TWINS utilizes Warner’s (2004) and Zeitoun’s (2007) works, which are based on that of Copenhagen School (e.g. Buzan *et al.* 1998) regarding security: As issues become more of a threat to the state, they are prioritized in the national agenda, thereby receiving more attention and attracting allocations of various state resources. Issues that do not concern the state, or issues that are not in the public domain, are ‘*non-politicized*’ issues. Once the issue gains a place on the political agenda it becomes ‘*politicized*’, “part of public policy, requiring government decision and resource allocation” (Buzan *et al.* 1998:23). ‘*Opportunized*’ issues may justify actions outside the bounds of normal political procedure. The issues in this level can also be ‘*securitized*’

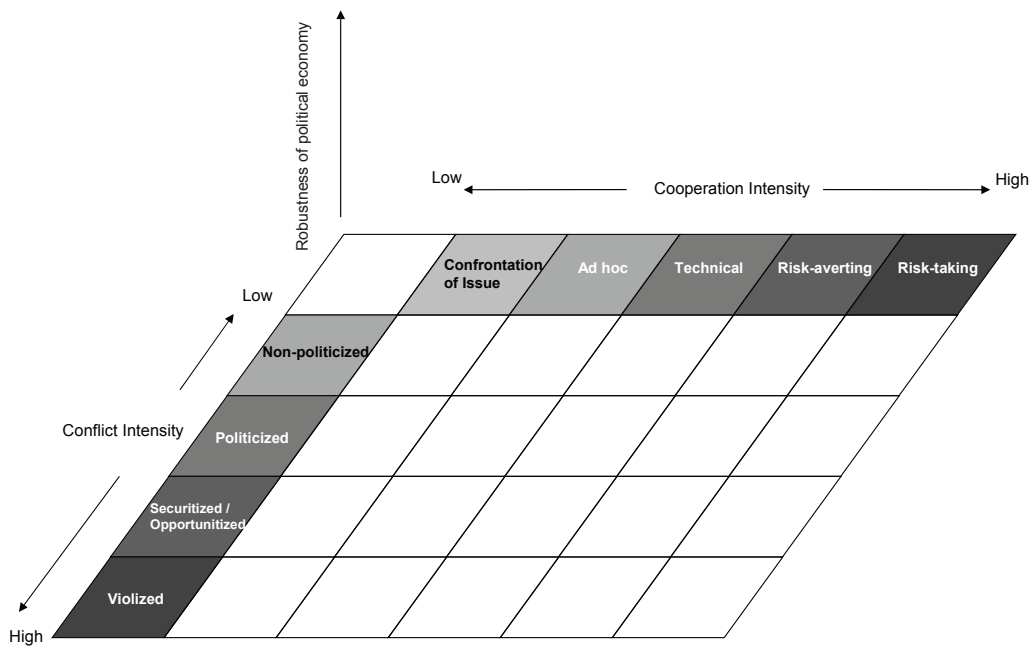


Figure 1. TWINS field (Mirumachi, 2007)

when they call for emergency measures and at the extreme, they can escalate to ‘violized’ issues. Thus, there are four levels of conflict intensity in TWINS (Mirumachi, 2007).

Conceptualization of hydro-political interaction has thus far focused only on measuring conflict intensities and thus lacked a truly holistic approach. That for based on the work of Tuomela (2000) Mirumachi (2007) has identified five levels of cooperation intensity to enable the construction of TWINS. At the lowest level of cooperation intensity, there is ‘*confrontation of the issue*’. In such interaction, the issue is acknowledged but there is no specific joint action or identification and sharing of goals. When there is joint action but no shared goals, it can be considered as to be ‘*ad hoc interaction*’. When there are shared goals but no joint action is taken, the interaction is considered to be technical cooperation. The difference between these two intensities of cooperation is how actors shape their goals. In ‘*ad hoc interaction*’, the actors are acting in a similar way but with different goals. When interaction becomes ‘*technical*’, there may be shared goals in how to solve a specific water-related problem, but actions and policies may not necessarily be aligned. Once there is joint action and shared goals, in addition to the belief that the other will behave as expected in the execution of the action, interactions can be considered as high in cooperation intensity. This level is ‘*risk-averting*’ because the states do not undertake the unforeseen costs in the future when committing to such action. Finally ‘*risk-taking cooperation*’ is an ideal form of cooperation as it is unlikely that states will assume costs without evident reciprocation (Mirumachi, 2007.)

It is important to emphasize that it is not possible to create a database and investigate “the truth” of different basin relations, or to predict the future through TWINS – the approach is more likely a hermeneutic tool for analysing the hegemonies behind the politics. In the case of Central Asia, there are several hegemonic and sanctioned discourses about the power in hydro-politics in and outside the basin. In comparison to the analysis presented in this paper, water management officials in the given countries or international organisations could see

the nature of the states’ actions differently and draw different trajectories of the development of the relations on the TWINS field. However, analysing the stakeholders and the drivers for interaction is the first step for a reform.

### 3 Illustrating co-existing conflict and cooperation in the Aral Sea Basin

#### 3.1 Hydro-hegemony in the Aral Sea Basin

Most of the TWINS studies thus far have been of basins which have a clear hydro-hegemon (see e.g. Zeitoun & Mirumachi, 2008), but in the case of Central Asia, instead of replacing the role of Moscow with one hydro-hegemon, all the states of the Aral Sea Basin have represented some sort of hegemony. According to Wegerich (2008), none of the states has managed to take dominative role in water management as they all are “actively and passively engaged in competition over the use of the flows” (Wegerich, 2008: 78). On the other hand, Russian dominance continues to be strong in the region. Still there are evident regional imbalances in the power relations which complicate the transboundary management.

Due to its geographical location in both of the basins of Amu Darya and Syr Darya and its intensive interaction with all of its neighbours, Uzbekistan, in relation to other states, has been chosen to be the basis for this analysis. As the strongest military power, with the biggest population, intensive cotton production, and having control over the regional electricity lines Uzbekistan can be claimed to be a regional hegemon, possibly also a hydro-hegemon. Uzbekistan’s over-reliance on cotton makes it extremely vulnerable to water mismanagement at any point on either the Amu Darya or the Syr Darya. Its main goal is to maintain the position that it established during the Soviet era, enjoying increasing allocations. Uzbekistan has reached food self-sufficiency, but it is trying to expand its production for export. Uzbekistan is again exploring with Kazakhstan and Russia the Soviet Era proposal of diversion of the Siberian Ob and Irtysh rivers to the Central Asian countries. However, the project would have disastrous

environmental consequences in an already vulnerable area (ICG, 2002; Allouche, 2007). Such a plan is probably only for supporting hegemony in the basin and not likely to materialize.

On the other hand, Uzbekistan is the only Central Asian country, which has acceded to the *United Nations Convention on the Non-Navigational Uses of International Watercourses* ( UN ILC, 1997). Thus it is legally obliged to implement the principles of "reasonable and equitable use" of water and ecosystem preservation and protection. As it has used in its former resource capture and containment strategies both bargaining and coercive tactics to guarantee its needs, it can be asked whether its accession is a sign of sincere commitment or again a new, ideational tactic to boost its power in hydropolitics. Uzbekistan has been actively seized on internationally funded regional environmental projects and it has also benefited most from them. While advertised as an IFAS project, AralGEF, one of the biggest environmental restoration projects in the basin, has been stated to have been almost entirely an Uzbekistan project (Sievers, 2001). Uzbekistan is playing on multiple chessboards, catering to different audiences, both international and domestic. The Uzbek government has securitized water issues as a national security interest and also as an environmental issue.

However, Uzbekistan does not represent all the characteristics for a hydro-hegemon, nor it does it alone. According to Wegerich (2008), considering its control over infrastructure in the lower and middle Amu Darya, Turkmenistan may be regarded of as a hydro-hegemon relative to Uzbekistan, while Tajikistan might also be considered to establish some form of hydro-hegemony with its plan to construct the Rogun Dam. The same could be claimed for Kyrgyzstan as it has the access to the upstream of the Syr Darya in relation to Uzbekistan and Kazakhstan. According to Shalpykova (2002) and Allouche (2007) the upstream states have little bargaining power in the region. Still, Wegerich (2008) emphasizes, as upstream states, they enjoy the strategic leverage. Hegemonic actions of the downstream states have aroused counter-

hegemonic actions from the upstream states which has made the politics on water dynamic.

The purpose of the following trajectories is to show the general trend in water politics rather than the detailed analysis of each and every speech act and event in the basin. The dimension of the robustness of political economy is left out of the diagrams because the two-dimensional trajectories can in this case more distinctly show prevailing tendencies. That does not diminish its importance though. Besides the bilateral trajectories, drivers for conflict and cooperation are drawn for the whole Aral Sea Basin.

### 3.2 TWINS trajectories for the basin relations

#### 3.2.1 Uzbekistan and Kyrgyzstan (Fig.2.)

Hydropolitical interaction between Uzbekistan and Kyrgyzstan has been increasingly dynamic since the erosion of the initial trust on the feasibility of the Soviet allocation scheme in the early independence (Fig.2;1). The relations first deteriorated during 1993-1996 when upstream Kyrgyzstan started to run its hydropower plants in winter against the 1992 Almaty Agreement (Fig.2;2) (Shalpykova, 2002). In response, in this period Uzbekistan continuously threatened to break the barter agreement on gas deliveries to its neighbour. According to Shalpykova (2002), this was the first time in the basin interaction when the states utilized their natural resources as a strategic leverage. In other words, they adopted a resource capture strategy to support their unilateral political and economic agenda.

Even though Uzbekistan had attempted to dictate the interaction during the first half of the decade, the balance shifted in 1997 when Kyrgyzstan decided to break its dependence on the unreliable downstream energy supply (Fig.2;3). Using a bargaining tactic, Kyrgyzstan challenged the downstream hegemony by demanding new monetary terms to the barter scheme which would have given it more room for manoeuvre in tapping

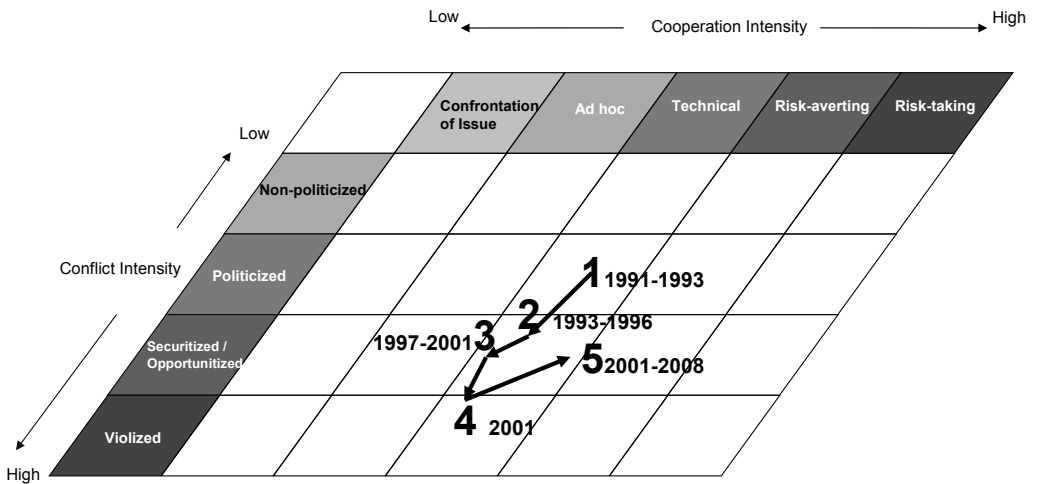


Figure 2. Trajectory of Uzbekistan-Kyrgyzstan relations

the upstream water resources of the Syr Darya and in ensuring its energy security. This led to further cooling in the hydropolitical relations of the states in the early 2000s (Fig.2;3-5). The interaction escalated into nearly violized in 2001, as the states “began to clash more obviously and furiously, exchanging mutual accusations, criticizing each other and ignoring the water-related negotiations” (Shalpykova, 2002: para. 6.1.).

Currently, the major point of contention between Kyrgyzstan and Uzbekistan is the Soviet Union-constructed massive hydroelectric facility and reservoir, Toktogul, on the Naryn-Syr Darya cascade in Kyrgyzstan. In recent years, Uzbekistan has continuously accused Kyrgyzstan of acting against signed agreements on allocations and management of the upstream facilities and international customary law (Fig.2;4). According to Sievers (2001:388) “increased short-term tension may be the price of convincing the states to resolve issues that otherwise would explode into open and unmanageable conflict in the longer term”, but Kyrgyzstan is now searching for ways to break free from its dependence to its downstream neighbour by teaming up with other states (Fig.2;5).

In the case of Kyrgyzstan, hegemony has called forth counter-hegemonic resistance. The most

relevant aspect of hydro-hegemony in the case of Kyrgyzstan and Uzbekistan is not any more about water allocation, about the right to water, but about the water use (Wegerich, 2008).

### 3.2.2. Uzbekistan and Kazakhstan (Fig.3.)

Being the most downstream riparian in the Syr Darya basin, Kazakhstan too has had tense hydropolitical relations with Uzbekistan (Allouche, 2007) (Fig.3;1). Kazakhstan has reproached Uzbekistan for mismanagement of the flow of the Syr Darya that has resulted in loss of harvests in its southern regions. Moreover, border disputes and questions of water rights have been further complicating the bilateral relations of the two countries (Allouche, 2007.) The ecological state of the Aral Sea has been especially on Kazakhstan’s agenda in regional meetings.

Otherwise the two most powerful economies of the region have formed trade agreements and are reviving common projects to transport water from Siberia to guarantee their increasing needs (see e.g. Allouche, 2007). Kazakhstan is the only country in Central Asia, which has been able to embrace more diverse market economy and it enjoys remarkable oil revenues. For Kazakhstan, the water issues in the Aral Sea Basin have thus lost their priority on the political agenda in comparison to upstream

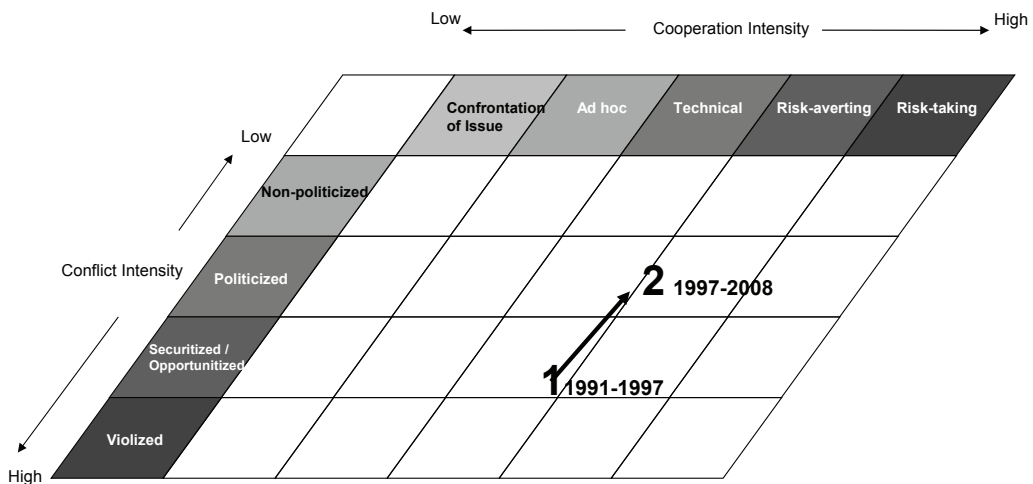


Figure 3. Trajectory of Uzbekistan-Kazakhstan relations

states (Fig.3;2) but they still continue to be an area of especially environmental concern.

### 3.2.3 Uzbekistan and Turkmenistan (Fig.4)

The greatest tensions in the Aral Sea Basin, thus far, have been between Turkmenistan and Uzbekistan with regard to Amu Darya. At the independence, rumours circulated of a small-scale armed conflict of the river's resources between the two states (Allouche, 2007) (Fig.4;1). According to Sievers (2001), there have been reports of Uzbekistan troops taking control of water control installations on the Turkmenistan bank of the river by force, and in 2001, there were reports of a massacre of a large number of Uzbekistan troops in Turkmenistan (Fig.4;2). While these reports are largely unsubstantiated, there is no doubt that the tensions are escalating (Sievers, 2001.)

Turkmenistan announced resource capture strategic plans in 1999 to construct a large artificial lake in the Kara-Kum desert through construction of a massive new diversion of the flow of Amu Darya. In the summer of 2000 and continuing into 2001, levels in the lower reaches of Amu Darya had dropped noticeably. In 2001, increasing numbers of people in both Karakalpakstan and Khorezm lacked both irrigation water and drinking water and large numbers of the residents of the regions

were attempting to flee to neighbouring regions of Turkmenistan and Kazakhstan (Fig.4;2) (Sievers, 2001). According to the International Crisis Group, "there is also an ethnic dimension to the [lake] project—an estimated one million ethnic Uzbeks living in the Dashkhowuz province of Turkmenistan are to be resettled to the Kara-Kum desert once the lake has been completed" (ICG, 2002; 26). Besides the concerns about population movements, Uzbekistan has also suspected that the lake project will decrease the flow of the Amu Darya to Uzbekistan. The Tuyamuyun reservoir that is on the territory of Turkmenistan but belongs to Uzbekistan and the shared irrigation scheme in its surrounding areas has also been raising tensions. In 2007 the situation was on a relative standstill still without a final consensus on the management system. (Allouche, 2007).

In recent years, Turkmenistan has not participated in the regional meetings concerning water management as it sees it as a "domestic issue". However, there is no doubt that water issues are still highly prioritized in its political agenda. The government of Turkmenistan, being highly authoritarian and controlling its economy strictly, has been claimed to have used the most coercive and (counter-)hegemonic tactic against Uzbekistan and to have started to follow unilateral resource capture policy. On the other hand, sanctioning this sort of



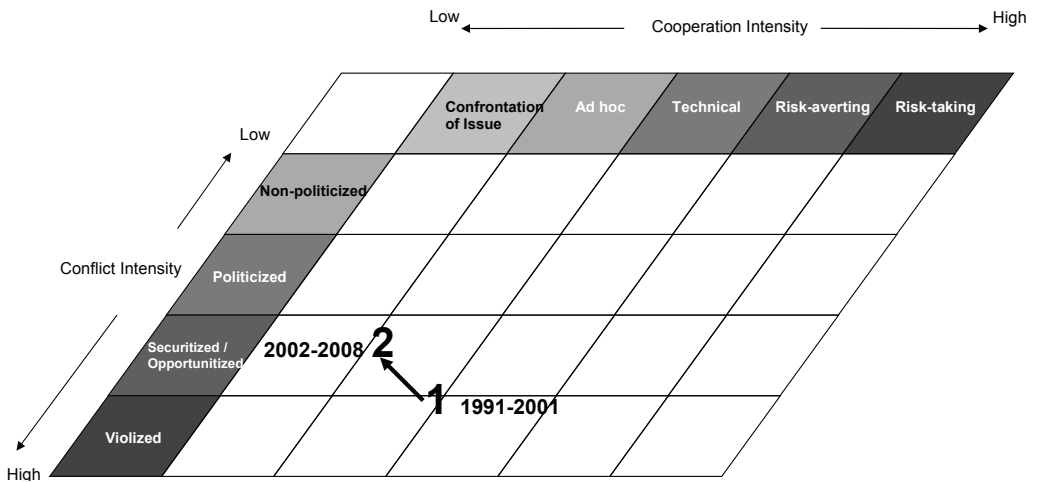


Figure 4. Trajectory of Uzbekistan-Turkmenistan relations

discourse could be a strategy from Uzbekistan’s part to show that Uzbekistan is non-hegemonic and a victim in the situation. According to Wegerich (2008), it harms Turkmenistan not to engage in the discourse or to facilitate a counter discourse by opening up its data of the use of the watercourse, since the BVO for Amu Darya, Basin Valley Organisation for calculating the water use, seems to be Uzbek dominated.

3.2.4. Uzbekistan and Tajikistan (Fig.5.)

Since their independence, Uzbekistan has actively poured cold water on Tajikistan’s plans to increase its share of Amu Darya. Due to Dushanbe’s unpaid debts, Tashkent has cut off the electricity and gas deliveries to its neighbour during winters, which has forced Tajikistan to run the power plants against allocations causing bilateral disputes. However, the dynamic relations could shift significantly if Tajikistan manages to implement its economic development vision (Allouche, 2007).

Even during the years of internal instability, water issues were relatively highly prioritized in Tajikistan’s political agenda as it took part in most of the regional negotiations (Fig.5;1.). Since 1998, Tajikistan has been planning to restart the construction of the Rogun reservoir and Sangtuda dam in the Amu Darya’s tributary Vakhsh Basin, both of Soviet period projects being frozen temporarily by the Tajik civil war. Due to Uzbekistan’s

opposition against projects which would give Tajikistan control over the river, Tajikistan has struggled to find international financing for its plans even though Russia and Iran have been possible candidates for investing. According to Wegerich (2008), the construction of the Rogun Dam might put Tajikistan into a similar position as Kyrgyzstan, which is demanding from the downstream riparian states Kazakhstan and Uzbekistan cost-sharing for its reservoirs. Even if Tajikistan succeeded in receiving financing for its projects e.g. from Russia or Iran, it would still have to find a way to bypass the currently Uzbek controlled regional energy grid line in order to be able to have full control of its own production and trade of electricity. Therefore Tajikistan is teaming-up with Kyrgyzstan to build a north-south transmission line which would make it “independent from the energy-grid hegemony of Uzbekistan” (Wegerich, 2008; 83). (Fig.5;2)

In order to gain support for its projects, Tajikistan has taken ideational counter-hegemonic actions in recent years to change the prevailing Uzbek-dominated discourse (Fig.5.;3). In 2007 Tajikistan made a diplomatic push during the United Nations General Assembly to raise the profile of Central Asia’s water dilemma and agitated for greater cooperation among Central Asian states on water-related issues. It has also started to host and sponsor regional water conferences.

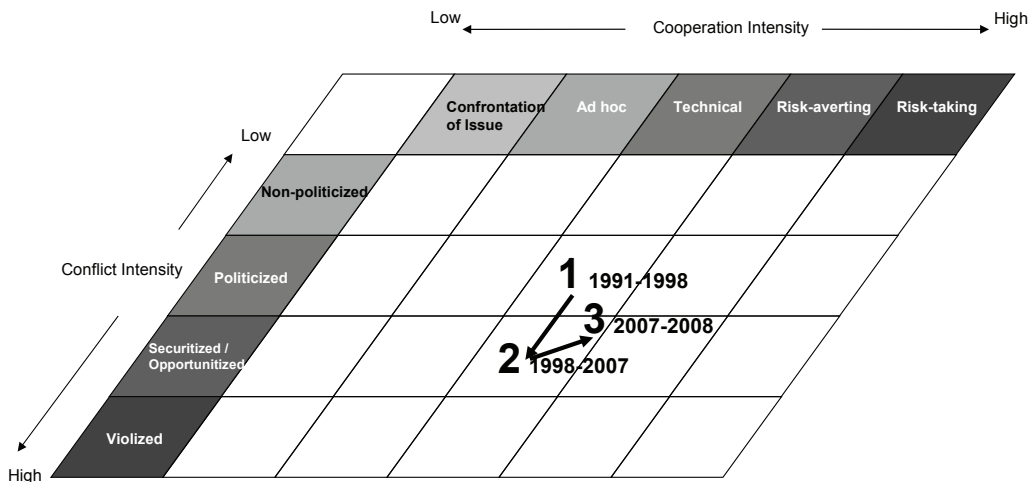


Figure 5. Trajectory of Uzbekistan-Tajikistan relations

### 3.2.5. Hegemony arousing counter-hegemonies

Trajectories presented here have only been drawn on Uzbek-relations on the Syr Darya and the Amu Darya – there are naturally interaction in the region on other rivers and between the other states as well. However, already these trajectories show that typically for a new transboundary basin, hydropolitical relations in Central Asia have been dynamic since the states' independence. The TWINS approach can illustrate the counter-hegemonic trend and co-existing conflict and cooperation in the basin relations - a phenomenon that e.g. Wolf's Basin at Risk project (Wolf *et al.* 2003) fails to detect by only scaling water related events on one dimensional axis. Despite its self claimed hegemony in the basin, Uzbekistan and the regional water institutions it has been dominating, have failed in promoting more sustainable water management in the Aral Sea Basin. Economic-imperatives have thus far dominated its politics and overshadowed its role as a regional forerunner and leader in water management.

Instead of building possibilities for benefit sharing *beyond the river* (see Sadoff & Gray, 2002), the states are quarrelling of allocations and taking unilateral actions. We do know the history and current reasons for this, but we also know that if

current trends prevail, the regional stability and development of the societies in the Aral Sea Basin are at risk.

### 3.2.6. Drivers for conflict and cooperation in the Aral Sea Basin

What is needed for a truly effective cooperation between the five states? It is clear that there are no simple answers for this question. However, it is also clear that basin is the right unit for the water management. All the states in the Aral Sea Basin have to be included in the management of transboundary water resources as they are not yet capable of independently guaranteeing their needs without causing harm to their co-riparians. TWINS field is a practical tool for listing the possible drivers for conflict and cooperation in the basin on the same picture (Fig.6.).

Currently it seems that in sum, there will be no fierce conflicts nor revolutionary wave to alter the situation for better in the basin, as the forces are rather equal in intensity. Development is stagnated. The balance is still delicate: above all, changes in the political economies of the states can shift the priority of water issues in their agenda.

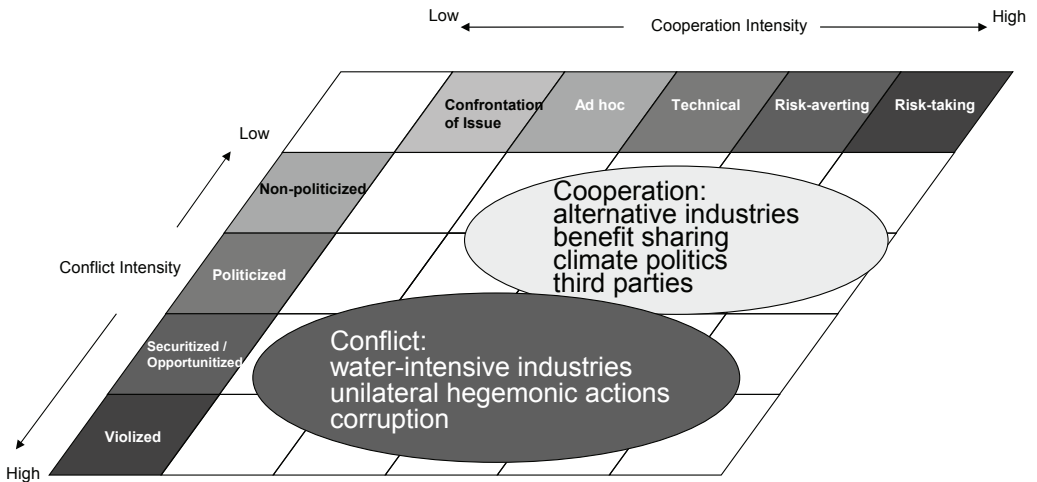


Figure 6. Drivers for conflict and cooperation in the Aral Sea Basin

The focus of global power politics is currently close to the region and geopolitics in the basin are once again crowded with external interests. On the other hand, global soft power is also growing stronger all the time of which climate politics is an excellent example.

In order to act according to the principles of IWRM (GWP, 2003), the states and the basin institutions would need a new culture of administration as corruption in the water sector is a severe problem in the region (Transparency International, 2008). Corruption may even blur the nature of interactions which further complicates policy planning. Therefore new generation of officials should be educated, regional and international treaties should be implemented in the country legislations and third parties' actions and funding should be more carefully coordinated in the basin.

Even though Aral Sea has been a victim of overuse of the flow of the two rivers running to it, crisis in the basin is not due to water stress but disagreements about quotas, deteriorating infrastructure and unsustainable use of water. If the states in Central Asia became convinced that a shift beyond allocations to benefit sharing and a shift to less water-intensive industries would be for their own good, environmentally, economically and societally, the Aral Sea Basin could have a brighter future.

## 4 Conclusion

Since the independence of the Central Asian states, their interaction on politics of water has been dynamic presenting simultaneously cooperative and conflictual tendencies. Even though transboundary water resources management has been built on institutions, agreements and foreign funded projects, the TWINS trajectories of Uzbekistan – co-riparian relations presented in this paper show that unilateral hegemonic and counter-hegemonic strategies dominate the hydro-politics in the Aral Sea Basin. Instead of forming a strong union the states are today yearning to break free from the regional interdependencies. However, development of the societies, state of the environment and regional stability are at risk in Central Asia as long as the states are not capable of moving from quarrelling about water allocations to sharing benefits beyond the river.

Coming years will show whether the states will be able to cooperate on developing common water policy as water issues and water-energy linkages will likely remain high on their political agendas. Efforts to reform transboundary water regime in the basin have to be carefully coordinated, acknowledging challenged power asymmetries and promoting more diverse political economies.

Only then the transboundary water management in the Aral Sea Basin can be built on more equal and sustainable basis.

## **Acknowledgments**

*I would like to thank Naho Mirumachi and Kai Wegerich for providing framework and their generous help for this analysis, Teemu Matvejeff, Sami Soininen and Lauren Eby for their assistance, and Marko Keskinen, Muhammad Mizanur Rahaman and Olli Varis for their support in writing this paper.*

## References

- Allan, T. 2003. *IWRM/IWRAM: a new sanctioned discourse?* Occasional Paper 50. SOAS Water Issues Study Group. University of London, London.
- Allouche, J. 2007. *The governance of Central Asian waters: national interests versus regional cooperation*. Central Asia at the crossroads. Disarmament forum, 4: 45-56.
- Beach, H. L., Hammer, J., Hewitt, J., Kaufman, E., Kurki, A., Oppenheimer, J.A. & A.T. Wolf 2000. *Transboundary freshwater dispute resolution: theory, practice, and annotated references*. The United Nations University Press, New York.
- Buzan, B., Wæver, O. & de Wilde, J. 1998, *Security: A New Framework for Analysis*. Lynne Rienner, Boulder.
- Dukhovny, V. & Sokolov, V. 2003. *Lesson on cooperation building to manage the water conflicts in the Aral Sea Basin*. UNESCO-IHP. Technical documents in Hydrology. PC-CP series No 11.
- Finger, M., Tamiotti, L., & Allouche, J., (Eds.) 2006. *The multi-governance of water: four case studies*. State University of New York Press, New York.
- Glantz, M.H. 2005. *Water, Climate, and Development Issues in the Amu Darya Basin*. Mitigation and Adaptation Strategies for Global Change, 10:23-50.
- GWP, 2003. *Integrated Water Resources Management Toolbox, Version 2*. Global Water Partnership Secretariat, Stockholm.
- International Crisis Group (ICG). 2002. *Central Asia: Water and Conflict*. Asia Report No 34. Osh, Brussel.
- International Law Commission (ILC). 1997. *Convention on the Law of the Non-Navigational Uses of International Watercourses*, opened for signature May 21, 1997, available at [http://www.internationalwaterlaw.org/intldocs/watercourse\\_status.html](http://www.internationalwaterlaw.org/intldocs/watercourse_status.html) , visited 17.08.2008
- Kubicek, P. 1997. *Regionalism, Nationalism and Realpolitik in Central Asia*. Europe-Asia Studies, 49: 637-655.
- Mirumachi, N. 2007. *Fluxing Relations in Water History: Conceptualizing the Range of Relations in Transboundary River Basins*. CD-R Proceedings of the 5th International Water History Association Conference Past and Futures of Water. 13-17 June 2007, Tampere, Finland.
- Mirumachi, N. & Allan, J.A. 2007. *Revisiting Transboundary Water Governance: Power, Conflict, Cooperation and the Political Economy*. International Conference on Adaptive and Integrated Water Management. 12-15 November 2007, Basel, Switzerland.
- O'Hara, S. 2000. *Lessons from the past: water management in Central Asia*. Water Policy, 2:365-384.
- Sadoff, C. W., & Grey, D. 2002. *Beyond the river: the benefits of cooperation on international rivers*. Water Policy, 4:389-403.
- Shalpykova, G. 2002. *Water Disputes in Central Asia: The Syr Darya River Basin*. Master's thesis. International University of Japan, Niigata. Available at: <http://www.ca-c.org/dataeng/00.shalpykova.shtml>
- Sievers, E.W. 2001. *Water, conflict, and regional security in Central Asia*. New York University Environmental Law Journal, 10:356-402.
- Transparency International. 2008. *Global Corruption Report 2008 Corruption in the Water Sector*. Cambridge University Press, Cambridge.
- Tuomela, R. 2000. *Cooperation: a philosophical study*. Kluwer Academic Publishers, Boston.
- Warner, J. 2004. *Water, Wine, Vinegar, Blood: On Politics, Participation, Violence and Conflict over the Hydrosocial Contract*. Proceedings of the Workshop on Water and Politics: Understanding the Role of Politics in Water Management. 26-27 February, Marseille, France.
- Wegerich, K. 2008. *Hydro-hegemony in the Amu Darya Basin*. Water Policy, 10(2):71-88.
- Weinthal, E. 2006. *Water Conflict and Cooperation in Central Asia*. Prepared as a Background Paper for the UN Human Development Report 2006. Human Development Office, occasional paper 32.
- Wolf, A.T. & Newton, J.T. 2008. *Case Study of Transboundary Dispute Resolution: Aral Sea*. In: Delli Priscoli, J. & Wolf, A.T.: *Managing and Transforming Water Conflicts*. Cambridge University Press, Cambridge.
- Wolf, A.T., Yoffe, S.B. & Giordano, M. 2003. *International Waters: Identifying Basins at Risk*. Water Policy, 5:29-60.
- Zeitoun, M. & Mirumachi, N. 2008. *Transboundary water interaction I: reconsidering conflict and cooperation*. International Environmental Agreements. DOI 10.1007/s10784-008-9083-5.
- Zeitoun, M. 2007. *Violations, Opportunities and Power along the Jordan River: Security Studies Theory Applied to Water Conflict*. In: Shuval, H. & Dweik, H. (Eds.): *Water Resources in the Middle East: Israel- Palestinian Water Issues From Conflict to Cooperation*: 213-224. Springer-

Verlag Berlin Heidelberg, Würzburg.  
Zeitoun, M. & Warner, J. 2006. *Hydro-hegemony: A Framework for Analysis of Transboundary Water Conflicts*. *Water Policy*, 8:435-460.

---

This publication is available electronically at  
[www.water.tkk.fi/global/publications](http://www.water.tkk.fi/global/publications)