Water Disputes in Central Asia: The Syr Darya River Basin

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ABSTRACT OF THE THESIS

This study explores the problem of water disputes in the Syr Darya River basin, which has negatively affected interstate relationships within the riparian community. As the last ten years demonstrated, these disputes have gradually become and continue to serve as one of the main sources of tense relations between the riparian states of the basin. Despite the fact that the countries are recognizing the necessity to adjust their upstream-downstream relations, they have failed to cooperate on transboundary water resources of the watercourse system.

The study attempts to make a contribution to the solution of the water issue in the Syr Darya River basin by elucidating the following important points: (i) why transboundary water resources of the river have caused discord between the basin states, (ii) what have been the consequences of the water disputes, and (iii) how the conflicting interests of the upstream and downstream countries could be harmonized.

The research begins by introducing the conflicting interests of the upstream and downstream states in order to demonstrate that the disputes over the waters of the Syr Darya River basin flared up mainly because of a problem of equitable water use.

The study then shows that the lack of substantive cooperation on water management in the basin has resulted in economic damage for all the parties concerned and contributes to tense state relations within the basin.

Further, the research analyses the main treaties, which have been signed by the basin states over the last decade, in an attempt to identify those crucial factors that undermined the efforts of the co-riparians.

Finally, the study proposes some recommendations that might be useful in the sense that they could help resolve the disputes between the upstream and downstream states of the Syr Darya River basin.

The conclusion of this study is that insistence on sovereignty and independence by states involved in water disputes has negative results and leads to a situation where all parties lose.

Эл баши болгуча – суу баши бол.

Instead of being at the head of people, be at the head of water

(Kyrgyz proverb)

CHAPTER ONE

INTRODUCTION

1.1 WATER POLITICS IN POST-SOVIET CENTRAL ASIA

In recent decades, there has been a notable proliferation of research concerned with the alarming tendency of interstate rivalry for access to and control of transboundary water-resource systems. The correlation between such rivalry and water availability is inversely related. To wit, the more the quantity or quality of water supplies declines, the more fiercely states seek to consolidate their rights to secured access or unilateral control over the life-giving sources.

Such state behaviour is conditioned by the role that shared watercourses play at domestic and international levels. As a rule, riparian states regard a shared riverine system not just as a hydrological unit, maintaining historical and traditional patterns of life, but also as one of the main tools to sustain their economic might and political weight. As a result of such heightened significance of transboundary water systems for national economies as well as for politics, co-riparians tend to keep up with actions of one another and clash over the question of how to develop and use these systems.

Similar attitudes and behaviour with respect to water resources of internationally shared watercourse systems can be observed in Central Asia.

Since gaining independence in 1991, the Central Asian countries have repeatedly clashed over the main river systems of the region, the Syr Darya and Amu Darya Rivers. These clashes have to do with issues of quantity and quality, and have basically stemmed from a new geopolitical situation in the region. The novelty of the situation lay in the fact that with the disintegration of the Soviet Union in 1991 and creation of new sovereign states, new international river sub-basins appeared in Central Asia, the Syr Darya and Amu Darya River basins.

The degree of dependence on water within these basins varies from country to country, and is conditioned by the geographical location of each state. Thus, for example, Kyrgyzstan and Tajikistan possess abundant water resources, and could be regarded as upstream states. Uzbekistan and Kazakhstan in their turn are mainly downstream states, the national economies of which depend on water resources flowing from their upstream neighbours.

Such uneven distribution of the water resources together with other challenges, be they economic or political, has repeatedly provoked discord among the basin states. The essence of the disagreement lies in the fact that being poor in oil, gas and coal upstream Kyrgyzstan and Tajikistan sometimes use their plentiful water resources for hydropower generation during the winter months. Uzbekistan and Kazakhstan in turn believe that rich hydraulic potentials of the Syr Darya and Amu Darya Rivers should primarily serve needs of their cotton and rice industries as was the case during the Soviet period.

For a period of ten years, the basin states have tried without any marked success to solve the water disputes over the transboundary watercourse systems. The negotiation process on the water of the Syr Darya River between Kyrgyzstan and its downstream neighbours, Kazakhstan and Uzbekistan, ultimately reached a deadlock in the summer of 2001. At the same time, Tajikistan, Uzbekistan and Kazakhstan have also certain difficulties on how to manage the water resources of the Amu Darya River basin.

Both cases of water disputes in the region are interesting because of the fact that they refute the arguments about upstream-downstream relationships, advanced by the majority of researchers of water politics. Analysing the problem of complex and tense relationship within a riparian community, these scholars hypothesize that “ the state which is the furthest upstream..will have no obvious incentive to cooperate.”[1] Furthermore, when it comes to a position of a downstream user in water-related talks, the researchers believe that “ irrespective of [its] relative power resources, [the state] will seek a cooperative solution because..[it is]..at the mercy of those upstream.”[2]

This assumption might be true if a state is not only in an advantageous geographic position but also enjoys considerable political and economic weight among co-riparians. Riparian relations within the Tigris-Euphrates basin could probably prove this assumption. However, upstream-downstream relations, which have been formed in the international river basins of Central Asia, especially in the Syr Darya River basin, contradict the assumption and develop in accordance with different and probably less studied principles.

In fact, being more powerful in terms of economic growth and political might, the lower riparians of the Syr Darya River basin have demonstrated an authoritative and inflexible attitude and less desire to cooperate with their less developed upstream neighbours. Upstream Kyrgyzstan in turn is more predisposed to collaborate on the water issue due to its high dependency on deliveries of energy resources from the powerful downstream states.

Over the last decade the upper riparian state has put forward a number of cooperative proposals on joint development and use of the shared watercourse system. None of these initiatives, however, has found a positive response from or at least understanding among the powerful neighbours. On the contrary, the proposals have resulted in sharp criticism and unprecedented pressure from the lower riparians. Such lack of understanding and respect for interests and needs of each other has furthered the riparian discord and has resulted in political rivalry between the co-riparians of the Syr Darya River basin.

In general terms, this disagreement has deep repercussions for the riparian states irrespective of their geographical position within the basin. In fact, while the downstream states have suffered economic losses caused by shortages of irrigational water in the summer seasons or floods in winter, the upper riparian has repeatedly found itself on the threshold of energy crisis.

In search of a solution for the problem of water shortages, the downstream countries have used different approaches towards water-rich Kyrgyzstan. These approaches vary from an attempt to negotiate in a business-like manner (exchange of water for energy resources) to sharp criticism and political reprimands. Thus, for instance, Kazakhstan has attempted to build its relations with upstream Kyrgyzstan on the basis of a pragmatic approach. Being well aware of an energy shortage in Kyrgyzstan, downstream Kazakhstan proposed to provide Kyrgyzstan with fuel and coal. These energy deliveries were supposed to facilitate negotiations on water supplies to Kazakhstan. Further events, however, showed that Kazakhstan failed to redeem its promises, repeatedly plunging Kyrgyzstan into an energy crisis in the middle as well as in the late 1990s.

Relations between two independent states, Kyrgyzstan and Uzbekistan, have developed in tenser manner. Uzbekistan, aspiring to the role of leader in the region, is resorting to hard-line tactics towards its weaker neighbour. In particular,

in the early 1990s Uzbekistan declared that the river systems of Central Asia are a common wealth, which belongs to all societies inhabiting the region and cannot be under unitary control of a particular country. This statement has basically meant that upstream Kyrgyzstan should leave its claims about exclusive property right to its water resources as well as about market value of water and provide irrigational water for the vast cotton fields of Uzbekistan for free.

The water-related clashes between the upstream and downstream riparian states of the Syr Darya River have been taking place against the background of drastic changes in energy sectors of Uzbekistan and Kazakhstan. These changes derive from the fact that the lower riparians have continued to inflate the prices for their energy resources, which was ruinous for the energy-dependent economy of Kyrgyzstan. Indeed, the country has eventually been driven into a debt hole.

Such situation has urged Kyrgyzstan to take appropriate measures in order to bring to an end to its dependence on energy supplies from Uzbekistan and Kazakhstan, and to defend its national interests. In the winter of 2001, Kyrgyzstan directed all water resources into hydropower generation to compensate for the shortage of gas and coal deliveries. These actions have resulted in a depletion of water reservoirs in Kyrgyzstan and crop failures in neighbouring states.

Over the last ten years the co-riparians had made several attempts to solve the water issue. Numerous interstate agreements and several interstate organizations, covering the Syr Darya River basin demonstrate these efforts. The question is whether the endeavours show the real willingness of the basin states to overcome and cooperate on the water issue? As the current state of affairs has shown in most cases none of the agreements has been observed in full, and interstate institutions have turned out to be helpless to resolve the disputes between the water-rich and water-poor countries of the basin. Examining the behaviour of the basin states, it becomes evident that the water resources of the transnational river system have become a cause of discord and tough political rivalry rather than an impetus for collaboration.

1.2 Statement of the Problem

What are the main obstacles to joint use of water resources of the transboundary watercourse system, the Syr Darya River? Have they been significant in terms of their capacity to challenge " any unifying role..[a] river might play?"[3] How do water disputes affect the upstream-downstream relations within the riparian community of the basin? Are these disputes fraught with potential risk in the sense that they challenge the socio-economic welfare and political stability of each riparian state as well as of the basin as a whole? What are the counter-

measures that could be taken to lessen and overcome the discord between the upstream and downstream users of the Syr Darya River?

By examining these obstacles, it would be possible to discover the reasons for the riparian disputes; to wit, the interests of the co-riparians as well as their purposes. These interests and purposes are important because they condition state behaviour in the Syr Darya River basin. The interests and purposes of the co-riparians will be also worth further research because they would be conducive to understanding why the states clash over the water of the Syr Darya River basin.

For example, being deprived of energy resources, the upstream state, Kyrgyzstan, is inclined to proclaim its plentiful water resources a commodity, which has a certain market value. Water-dependent Uzbekistan and Kazakhstan in turn tend to strongly object to the Kyrgyz initiatives to treat water as a commodity and to disagree with excusive property right of Kyrgyzstan to the water resources of the Syr Darya River basin.

By knowing the major driving forces and goals of the riparian neighbours, it would be possible to come to the next point of the water issue in the Syr Darya River basin, namely, the consequences of the disputes for each riparian state as well as for the basin as a whole. The current state of affairs has demonstrated that due to the lack of an agreement on water management, none of the basin states benefits. Indeed, irrespective of their geographical positions, the co-riparians are suffering economic losses associated with ineffective development and use of the basin water resources. Furthermore, the water issue has negatively affected interstate relationships within the riparian community.

A study of the outcomes of water disputes in the Syr Darya River basin would be helpful to map out concrete steps to lessen the negative influence of the water issue on economies, and on the regional politics and the environment of the basin. Besides, showing the consequences of water clashes in “ the ethnically heterogeneous..and water -stressed”[4] environment of the Syr Darya River basin, could stimulate the regional leaderships to overcome the problem. The desire to cooperate in turn could bring back the attention of the international community to the economic problems in the riparian countries as well as ecological challenges in the basin.

This study deals with several important points to be identified and addressed. It analyses the main causes and consequences of the water disputes between the upstream and downstream states of the Syr Darya River basin. Based on the results, the study advances certain ways to settle the water issue in the basin.

Discussing the riparian discord in the Syr Darya River basin, the research focuses on upstream-downstream relations between three riparian states: Kyrgyzstan, Uzbekistan and Kazakhstan. The fourth basin state, Tajikistan,

remains out of the focus of this study. For several years the country did not participate in the negotiation process on the transboundary river system due to civil war and political turmoil. By the end of the 1990s Tajikistan had jointed the discussions but still little reliable and clear information about the position of this country can be found.

1.3 Objective and Hypothesis

This study is a result of two years of research conducted in Japan under the ADB Japanese Scholarship Programme. The objective of the study is to analyse the riparian discord between upstream and downstream states of the Syr Darya River basin, located in Central Asia. It aims to explore the main reasons and consequences of the water disputes for the situation in the basin at large and for interstate relationships in particular. It seeks to answer the research question of how the water disputes affect political relations between the riparian states of the Syr Darya River basin.

The study attempts to test the hypothesis that insistence on sovereignty and independence by states involved in water disputes has negative results and leads to a situation where all lose.

In the past the riparian states had a relatively successful experience how to cope with uneven distribution of water and energy resources within the region at large and within the Syr Darya River basin in particular. In general term,s this experience was based on a principle of mutual appreciation of the interdependence of the national economies and geographical challenges. Perhaps, the experience deserves to be examined again in the sense that it could help the basin states to find a way out of the current impasse.

1.4 Methodology

The study uses a conceptual framework based on upstream-downstream state relations in water disputes. This framework is aimed at categorizing those aspects that are of crucial importance for each riparian under any circumstances, be they discord and confrontation or negotiations on cooperation. These factors are: (i) the degree to which national economies of the basin states are dependent on water supplies; (ii) the economic weight and political might of the upstream and downstream states; (iii) the nature of interstate relations with respect to the water issue; and (iv) efforts and steps, which have been taken by the co-riparians in an attempt to solve the riparian clashes.

The study also utilizes the historical approach, which has been developed by one of the scholars of the politics of water, Miriam Lowi, in her investigation of disputes over the internationally shared water resources of the Middle East.[5] To wit, at the beginning the study looks at the history of water disputes between the co-riparians of the Syr Darya River basin from the early 1990s until the present. For analytical purposes the research explores the main reasons and consequences of the disputes for the riparian community at large and each basin state in particular as a part of the conceptual framework mentioned above.

Finally, the research uses the specific case study approach to answer the research question of how the water disputes affect political relations between the riparian states of the Syr Darya River basin. This question contains a particular feature of water disputes in the basin: while the upstream state is inclined to revise generous water distribution because of challenging market realities, the downstream states are reluctant to accept new conditions of water management in the basin.

The study is based on secondary sources of data. The reviewed sources were in English and Russian, and are listed in the Bibliography at the end of the research.

1.5 Organization of the Study

The study is organized in six chapters. Chapter one consists of the background information, a statement of the problem, an objective and a hypothesis, and methodology. This chapter considers the recent trends in water politics in the post-Soviet Central Asia by highlighting general dynamics of interstate relationships as well as the latest claims of each riparian state.

Chapter two represents theoretical part of the study, which introduces some conceptual issues necessary for understanding a peculiarity of state interactions within a riparian community. This part of the study accentuates on a concept of an international river basin and on the problem of cooperation. Besides, the chapter outlines basic principles of international river use and possible ways of water disputes resolution.

Chapter three begins with a description of physical and non-physical features of the Syr Darya River basin in order to understand the logic behind a certain political behaviour of the basin states. The chapter, then, introduces the water issue itself with the focus on those factors that have caused the disputes over the water of the Syr Darya River basin among Kyrgyzstan, Uzbekistan and Kazakhstan.

Chapter four continues the analysis of the water issue in the Syr Darya River basin by exploring consequences of the water discord for the basin at large as well for each riparian state in particular. The chapter maintains that none of the parties involved gets benefit from a situation existing in the Syr Darya River basin.

Chapter five outlines the various attempts the co-riparians have made in recent years in order to solve the water issue. In particular, it analyses water agreements, signed by Kyrgyzstan, Kazakhstan and Uzbekistan in different period of time. The chapter concludes that the agreements have remained on paper and have never been put into practice in full measure. This is so because these agreements reflect a desire of the regional powers to pursue their unilateral interests rather than an aspiration for just cooperation.

Chapter six forwards a number of proposals, which might be useful in solving water disputes between upstream and downstream co-riparians of the Syr Darya River basin.

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[1] Miriam Lowi. *Water and Power: The Politics of a Scarce Resource in the Jordan River Basin.* New York: Cambridge University Press, 1993, p. 10.
[2] Miriam Lowi. *Water and Power: The Politics of a Scarce Resource in the Jordan River Basin.* New York: Cambridge University Press, 1993, p. 10.
[3] Donald Weatherbee. " Cooperation and Conflict in the Mekong River Basin." *Studies in Conflict and Terrorism* 20, 1997, p. 168.
[4] Elisa Chait. International Water Resources Association. *Water Politics of Syr Darya Basin, Central Asia: Question of State Interests*. 7 pages. <http://www.iwra.siu.edu/pdf/Chait.pdf> (March 03, 2002).
[5] Miriam Lowi. *Water and Power: The Politics of a Scarce Resource in the Jordan River Basin.* New York: Cambridge University Press, 1993, p. 11.

CHAPTER TWO

INTERNATIONAL WATER RESOURCES

2.1 Water as a Unique Resource

Like other natural resources, water is commonly treated as an essential source, which is required to maintain life on the Earth. This is so because in general terms water is really important for both the environment and human beings. Its availability conditions the health state of the surroundings and determines considerably the economic activity of human society.[6] In terms of international relations, water resources are of great importance due to a hidden potential they possess. This potential generally comes to an ability of the water issue to

transcend a merely domestic agenda and become a source of political rivalry between riparian states.[7]

What are the main features that make this transition possible? Researchers of water politics identify a number of physical characteristics that predetermine the unique potential of water: first, it does not have a substitute; second, it transcends political boundaries; thirdly, its availability is fixed; and finally, global reserves of water are distributed unevenly.

The first unique feature of water is proved by the fact that during the last century humankind never found a productive way to create water in artificial conditions or to substitute this life-giving source by any other surrogate. Another fundamental characteristic is also worthy of attention: water moves regardless of any geopolitical boundaries established by man.[8] Furthermore, even though water is considered to be relevant to the category of renewable resources, to some extent its availability depends on different hydrological factors, such as seasonal precipitations and climate changes.[9] Finally, water reserves are disproportionately distributed around the world. While sparsely populated northern areas of the Earth, contain more than 80% of the total reserves,[10] the water-poor zones, making up about 40% of the global area, possess only 2%.[11]

All these physical characteristics of water resources determine their crucial importance not only for domestic affairs but also for international politics.

2.2 Current Global Situation

Recent findings demonstrate that nowadays 40% of the global population faces the problem of *water stress*, which means that the index of annual per capita freshwater availability varies from 1,000 to 1,700 cubic metres.[12] It occurs against the general background of steady growing exploitation of water resources: for nine decades of the last century mankind has increased water withdrawments in river basins by six times.[13] Under the circumstances of water stress and increasing demand for water supplies, states are predisposed to regard access to and control over water systems as “ a matter of national security,”[14] which in turn contributes to discord and clashes between co-riparians.[15]

In fact, history is inundated with examples of disputes over limited water resources in different parts of the world. Currently, almost every continent or region of the globe has its volatile water issue on the political agenda: the Rhine and the Danube in Europe; “ the Jordan and Euphrates in the Middle East; the Ganges in the South Asia; the Nile in Africa; the Colorado and Rio Grande in North America”[16] and the Syr Darya and Amu Darya in Central Asia.[17]

Despite such a wide geography of water disputes, the scholars of water politics believe that sharp rivalry over internationally shared waters is typical for developing states rather than for industrialized nations.[18] This fact is usually explained by the weakness or absence of institutional arrangements and regimes, which are able to solve conflicting interests of basin states.[19]

In fact, the aspiration to achieve economic development and social prosperity in a water-stressed region leads to a situation when states tend to be dissatisfied " with the present or future prospects on water availability."[20] Under such circumstances, co-riparians are inclined to revise their positions on use of the river systems and to take certain steps aimed at protecting their national interests, including secession from existing institutions or the rejection of established norms and regulations.[21]

Even though the relationship between limited water resources and confrontation is often indirect and difficult to trace, in some regions of the world water scarcity has already contributed to political tension and rivalry between sovereign states. Therefore, for many decades the competition for limited water resources remains to attract attention from the scholars of the politics of scarcity and resource conflicts.[22]

2.3 The Concept of an International River Basin

Originating high in the mountains, water streams flow together in one riverbed and form a river that brings its waters through valleys to the sea. Along its way to the terminus, a river and its tributaries, including surface and ground waters create so-called *a unitary river basin* – a geographical area, which is shaped by the borders of a given water system.[23] In view of the fact that moving waters disregard geopolitical divisions and in response to the increased cases of clashes over the fluvial waters, in 1966 the International Law Association introduced the concept of *an international drainage basin*. According to the concept, as soon as a river crosses frontiers of one country to continue its flow through the territory of two or more states, the notion of an *international river basin* is applied.[24]

2.3.1 Upstream – Downstream Relations

Flowing from one basin state to the next, the water system of a given basin places co-riparian countries with their needs for water in upstream and/or downstream positions. As a rule, states, which are regarded as upstream, possess abundant water resources since the majority of water flows are born in their mountainous ranges. Downstream riparians in turn have too little water for

their social and economic development, and are heavily dependent upon waters flowing from the territories of their water-rich neighbours.[25] Such inequitable distribution of water supplies multiplied by economic or political competition in a basin brings to conflict of interests between the co-riparians.[26]

Scholars of water politics believe that water-rich nations and downstream states are inclined to approach the question of use and development of international watercourses in an entirely opposite ways. Thus, for example, recent studies maintain that possessing rich water potential, the upstream nations very often do not see any necessity to " forego their unilateral advantage" and to develop the river system in cooperation with downstream riparians.[27] Striving for power and authority, upstream countries tend to control unilaterally the amount of water flowing downstream. In case of conflict or any other dispute, the beneficiaries of abundant water resources never miss an opportunity to demonstrate the power and capacities they possess in order to force the opposite side of conflict to obey or compromise.[28] Such demonstration by water-rich nations usually provoke disagreement downstream a river and lead to riparian clashes over the way in which this international river system should be used and developed.[29]

For instance, according to reports, disputes over waters of the Euphrates River remained one of the main reasons of tense and complicated relations between Turkey and Syria. In 1990 Turkey finished the implementation of a number of irrigation projects, which strengthened its upstream power and made it possible for Turkey to become the main distributor of the downstream flow of the Euphrates River.[30] In 1995, in reply to accusation that it had an aggressive water policy and caused pollution of the Euphrates river basin, Turkey made a statement, which did not leave any doubts in the minds of leaders in downstream countries: " Neither Syria nor Iraq can lay claim to Turkey's rivers any more than Ankara could claim their oil.... We have a right to do anything we like. The water resources are Turkey's, the oil resources are theirs. We don't say we share the oil resources and they cannot share our water resources."[31] Starting from that year the water potential of Turkey became a *weapon* and an instrument of political pressure " to force [Syria] to withdraw support for Kurdish rebels operating in southern Turkey."[32]

In their turn, lower riparians as a rule are very anxious about the manner in which upstream beneficiaries exploit waters of a common river basin. Such concern is conditioned by the fact that the consequences of any intrusions into a river system, be they irrigation projects or building dams, are different for upstream and downstream users. Thus, for example, for upper riparian states, implementation of water projects generally implies improvement of the water supplies and economic prosperity. For the downstream nations with their high reliance on outside water flows, intensive consumption of water, taken place upstream, could result in weakening of energy security, population migration and damage of ecosystems.[33] In other words, unilateral development of an international watercourse system upstream, " irrespective of the preferences

of…[all]…beneficiaries," affects political, social and ecological situation downstream.[34]

Due to unfavourable consequences stemming from water-related projects, downstream states tend to see a way out of such situation in new political coalitions even with their historical adversaries. Therefore, there is an opinion among scientists that waters of international rivers can bring together long-standing rivals or become one of the reasons of confrontation between nations " with similar political systems and a tradition of friendly cooperation."[35] For example, despite discords on many political issues, differences in cultural backgrounds and competition for water, Israel and Jordan managed, at least for some period, to hold to agreements on the Jordan River.[36] At the same time, Saudi Arabia and Jordan having more similarities than differences failed to come to consensus on shared water resources.

It should be mentioned, however, that the upstream-downstream relations described above are not constant and stable scheme typical for all international river basins. A powerfulness of a water-rich state is not a constant factor as it is considered by some experts of modern water politics.[37] Plentiful water resources available in some upstream states do not always guarantee advantageous or at least equal position of the countries in regional politics. Quite the reverse, water could become one of the reasons for the shaky position of upper riparians, loss of authority among more dominant but water-poor neighbours and unprecedented manifestation of power by downstream riparians.

2.3.2 Riparian Dilemma: Theory and Practice

Why do the fluvial waters of a transboundary watercourse system often serve as a source of discord between basin states? The main causes for water disputes between co-riparians are rooted in so-called the international river basin dilemma, when water resources of a given river basin are treated differently by all legal beneficiaries. Such different attitude towards water resources is conditioned by the following reasons: (i) physical peculiarities of a basin; (ii) economic efficacy; and (iii) historical perceptions of water in a region.

The geographical features of a river basin, which includes an international river and its tributaries, imply that all co-riparians should treat water resources as an undividable unit. In fact, the river basin could be considered as a common-property resource by virtue of the fact that the fluvial waters easily transcend geopolitical boundaries of basin states and bind drained areas together. However, the current developments, which are taking place in different parts of the world, display that upstream riparian users are less inclined to sacrifice their sovereignty over their natural resources in the name of water management at the basin scale.

Another component of the dilemma is economic efficiency. Like geography, economics considers the river basin as an indivisible unit subject to a universal approach. Utilizing joint actions in the field of land irrigation and drainage, and other areas, the basin states could elaborate so-called *a basin-wide model* and derive mutual benefit from sharing water resources of a river basin.[38] In reality, since water resources are of crucial importance for national economies, be they upstream or downstream, water-rich riparians seem to be reluctant to give away their assumed economic benefits, stemming from beneficial locations.

Despite the geographic and economic advisability regarding the holistic development of an international river basin, historical experience shows that " only reluctantly will states relinquish control over…resources that lie, even partially within their borders."[39] Given an advantageous position and striving to maximize their utility, the upper riparian states are inclined " to exploit resources unilaterally" and " have no direct interest in unitary river basin development."[40] Furthermore, when it comes to water scarcity, competition " for access to, and control over limited water supplies" becomes more acute provoking tension and conflict between riparian communities and nations, inhabiting a river basin.[41]

2.4 Concepts of International Relations on the Problem of Cooperation

Why do states cooperate with each other or refuse to collaborate when it comes to the issue of natural resources? The proponents of different concepts of international relations have fundamentally different views of the problem of cooperation. However, the enduring debate between two controversial schools of thought, *realism* and *institutionalism*, presents more than academic interest for researchers of international relations. The two schools have diametrically opposite approaches to the issue in question.[42] This is so, by virtue of the fact that each perspective (i) perceives differently *the basic units* of international relations and their interaction, and the nature of world system; and (ii) interprets state behaviour on the global arena in a dissimilar way.

Elucidating the different aspects of international politics, the realists use a *state-centric approach*, which implies specific focus on a state as *a unit of analysis*[43] and as the key, unitary and purposive actor in inter-state interactions.[44] The realists argue that in order to maximize its utility, protect national interests and preserve its position in the absence of central authority, a rational actor is typically preoccupied with military and political issues.[45] For the realists, in a *self-help* system, a state strives for strengthening its " power positions relative to other states," in an attempt to protect its *sovereignty* and secure its survival as a nation-state.[46]

Tackling the problem of cooperation, the realist concept claims that interacting in the specific environment of mutual distrust, when states tend " to maintain or increase their power positions relative to other states," it would be ruinous for one actor " to place [its] security…in the hands of another." [47] The realists argue, therefore, that cooperation among states is quite a problematic issue.[48] The adherents of the perspective assume that under certain circumstances collaboration dictated by certain self-interests is possible.[49] However, the realists are quite pessimistic about duration of such collaboration since it presupposes dominant-dependence relations rather than equality between parties involved.[50]

Doubts of the realists about the long-term and equal nature of cooperation between nation-states could be closely linked to the *concept of the national sovereignty*. The concept hypothesizes that due to the absence of supreme authority within the international system, states act as autonomous and independent actors on the global arena, protecting zealously their survival and existence.[51] In general, the doctrine contains two visions of a state autonomy: *internal* and *external* sovereignty.[52] The idea of internal sovereignty assumes that a state has a supreme authority within a particular territory. In other words, even though there is power hierarchy in international politics, a state has a right to be independent in its domestic affairs and be " entitled equally to full respect by other states."[53] External sovereignty implies " the extent to which a state is recognized by other states as the legitimate authority within its borders."[54]

As long as natural resources play an essential role in regional politics and are of crucial importance for economic development, states are inclined to regard them as strategic and are interested in their unilateral exploitation.[55] Some principles of international law, if do not actually advocate such behaviour, at least recognize, to a certain degree, the right of states to manage their natural resources in any way they find appropriate.

Thus, for example, the principle of *permanent sovereignty over natural resources* of the General Assembly of the UN reads that (i) " the right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the State concerned" ; (ii) " the free and beneficial exercise of the sovereignty of peoples and nations over their natural resources must be furthered by the mutual respect of States based on their sovereign equality." [56]

Institutionalism shares the assumption of the realist perspective that the state is the key actor of international relations.[57] However, institutionalism does not regard the state as the sole actor in world. Equally with states, non-state actors, like *human-constructed institutions* play their own role of no small importance in world politics.[58] For the institutionalists, international arrangements fall into three categories: (i) *formal intergovernmental* or *cross-national nongovernmental organizations*; (ii) *international regimes*; and (iii) *conventions*.[59]

The adherents of institutionalism believe that when it comes to issues of cooperation or conflict among states, institutional arrangements are able to exert their influence on state behaviour.[60] Institutionalism asserts that despite the anarchy in the international system, it has evident elements of *institutionalisation*, which imply the existence of " persistent and connected sets of rules..that prescribe behavioural roles, constrain activity, and shape expectations."[61]. These norms and standards facilitate negotiations between the key actors and help to predict and interpret state behaviour taking place within the system.[62]

Although, institutionalism accepts the idea of the *decentralized* nature of world politics and the lack of trust and confidence among states, as proposed by the realist school, when it comes to the issue of cooperation, the highlight of the theory is that under certain circumstances " cooperation is possible".[63] Defining the conditions under which states would be more disposed to collaboration rather than to confrontation, institutionalism asserts that institutional arrangements and regimes can guide states in the process of negotiation, development of international treaties, and monitoring compliance and implementation of commitments.[64] Given the absence of central power, international arrangements and regimes can serve as key mechanisms to secure " some degree of order in international relations."[65]

In order to address the problem of disputes over transboundary water resources, institutionalism employs a regime framework. This is so, because the scholars of this persuasion believe that " transnational problems cannot be managed by one country acting alone" ;[66] therefore, institutional arrangements are needed to solve the environmental challenges.[67] The primary concerns of *regime theory* are how to " encourage actors to overcome their reluctance to cooperate" and to stimulate them to " produce outcomes beneficial to the international community."[68] Designing institutional mechanisms, which can promote cooperation in question, the theory assumes that mutual profits could be a more powerful impetus for states rather than power. At the same time regime theory claims that the success of a regime depends on (i) mutual recognition of preferences, and (ii) proper comprehension of states' behaviour in the negotiation process.[69]

There are two main models of regimes within the theoretical framework: *the least common denominator (LCD)* and *bargaining* regimes. The first type of regimes could be constructed on the basis of the *law of the least common denominator*, when principles and regulations of an agreement correspond to the needs of the *least enthusiastic party* of a regime.[70] According to a regime theory, very often regimes are doomed to failure due to unwillingness of one of the parties to join " decisions [that] reflect the views of the least enthusiastic party [only]."[71]

The second pattern of regimes is so-called *bargaining* or *negotiated* regimes. The logic behind such regimes is that both state and non-state actors can participate in a bargaining process. Moreover, any participant can execute leadership functions provided that the resolutions will be compromises and

acceptable for all sides. The interesting point about these kind of regimes is the variety of methods that are aimed at satisfying the parties concerned: " stressing uncertainty, monitoring, iterated games, promoting equity and integrative bargaining over debate on distributive and efficiency issues, the introduction of…*selective incentives* [like] side payments, political pressure and education."[72]

To conclude, the problem of cooperation in an international river basin can be described and analysed on the basis of different concepts and approaches. However, the concept of the national *sovereignty* of the realist perspective and *regime theory* of institutionalism provide " a theoretical framework for understanding states' behaviour and addressing the problem of the clashesover natural resources."[73]

2.5 Basic Principles of International River Use: Review and Evaluation

What are the instruments that might induce both parties of the disputes in question to treat water resources not only as a *common good* but also as a *commodity*? What does the politics of water have to say about the principles of use and development of internationally shared water resources?

According to the scholars of the water politics, the main stumbling block in development of an international river basin is the reluctance of upstream states to sacrifice their sovereignty for the common good of all basin nations. This is so because any kind of collaboration over the internationally shared waters calls in question " the state' s proclaimed sovereignty overits resources." Therefore, it is considered that meeting the wishes and needs for water supplies, upstream states tend to expect political appreciation and economic compensations from lower co-riparians.[74]

There are five basic principles concerning the sovereignty of basin states over the water resources: *absolute sovereignty*, *river flow integrity*, *community of co-riparian states*, and *equitable utilization*.

The concept of *absolute territorial sovereignty* or so-called *the Harmon Doctrine* is generally based on the unilateral right of a state to use " the fluvial waters' , which lie within its territory without any limitations whatsoever, regardless of the effect of this utilization of other states." The doctrine is based on the idea of sovereignty of the realist concept, and has enjoyed great support from the majority upstream states " since it conferred [them] marked power advantages."[75] Nowadays, even though some literature argues that the theory was rejected by water-rich states because it contradicted the rules of international water law, history exemplifies that some countries tend to use their upstream positions to have influence on their water-poor neighbours.

The next three principles mentioned below follow the institutionalist approaches. The principle of *river flow integrity* presents an extreme opposite vision on the problem of the management of international river systems and is mainly supported by water-poor states. The logic of the principle is that a river basin should be considered as an undividable unit, where downstream users have a right to enjoy " the full flow and quality of water" .[76] The concept implies that upper states " must conduct themselves within the limits of their territories in such a way as not to alter the natural regime of the river when it runs through the territory of another state."[77] Moreover, the doctrine introduces so-called *prior appropriation of water*, which suggests that " the existing water rights of lower riparians must first be respected and satisfied before any other claims can be met."[78]

The theory of *community of co-riparian states* or *condominium* is regarded by analysts of the water politics as a more realistic view in comparison with the principles mentioned before. The concept serves as buffer line between upper and lower stream countries since it supposes that " all riparians over the whole international river or river system should be limited in their freedom of action over the utilization of international rivers." According to the concept, before the implementation of any water-related projects within its territory, " a state would need to obtain prior consent from co-riparians..concerned with the utilization of waters" . This idea encourages basin nations to develop jointly the fluvial waters and treat the shared water resources as a common property.[79]

The final key principle of the concept, *equitable utilization*, is influenced by both realists and institutionalists schools. This idea states that both upstream and downstream states should manage waters of river systems " in an equitable and reasonable manner and are duty-bound to do so cooperatively."[80] The concept " has become the most widely advocated by the international legal community, as evidenced by treaties, juridical decisions, academic research and international bodies."[81]

To sum, even though " the best strategy for addressing..[environmental issues]..[is] cooperation, not competition," [82] it is very important for conflicting sides to appreciate and accept that each side of a dispute has its own interests. To wit, the three principles mentioned above should not be treated as the main tools for powerful downstream riparians to force economically weak upstream states to follow the rules. Rather than insisting on their uncompromising position that water is a common good for all, downstream countries could consider needs and interests of water rich but economically weak neighbors.

2.6 Resolution of Water Disputes: Theory and Practice

What are the factors that prevent co-riparians from collaboration in international river basins? What could be constructive circumstances, under which both

upstream and downstream states would prefer a peaceful resolution of clashes over water resources to acute confrontation? First of all, the researchers assert that the main obstacle for " the effective resolution of water disputes" is rooted in the existence of political conflicts between states. Indeed, events developing between the states of the Jordan River basin or the Indus River basin have illustrated that clashes over security and strategic issues do not dispose states towards cooperation on matters related to so-called *low politics* realm.[83]

Another factor that undermines any efforts aimed at resolving clashes over internationally shared water resources is the absence of a balance of power between the legitimate beneficiaries of a given region.[84] This is so, because as a rule a state, possessing more power and authority in international river basin, is inclined to ignore the interests of the weaker side of negotiation process. Insisting on its position, a regional power gains benefits and secures its power in a basin in the short-term. However, in the long run the dispute resolution process is undermined since a weaker party persists to demand " more favorable conditions."[85]

Addressing the problem of clashes over the internationally shared water resources, the scholars of water politics advance the following suggestions, which could be relatively subdivided into political, institutional and technical recommendations. In terms of political responses to the problem in question, the researchers recommend that " political conflicts [should] be resolved first."[86] Besides, it is crucial to involve *a third party*, which should be " impartial and firmly committed to a successful resolution of the dispute." Moreover, all conflicting parties should be sure of the impartiality of the *third party*, otherwise, as experience demonstrates, the negotiation process is doomed to fail.

Institutional response to water disputes suggests that together with an adjustment of political confrontations existing between co-riparians, work on the elaboration of projects and arrangements should be conducted. Besides, the *third party* involved in such negotiation process should " show a commitment to working closely, and in advisory capacity," with a variety of institutional representatives of parties concerned. At this stage the mission of governments is very essential for the *problem-solving* procedure: they should provide domestic technical expertise and in every possible way to facilitate talks on water resources use and development.[87]

Finally, there is the technological solution to reducing the conflicting interests of co-riparians. It implies a number of measures directed to improve water quality and increasing water supplies of a given river basin. These steps could vary from so-called *cloud-seeding, desalination* and *waste-water reuse* to " importing water from relatively wet zones."[88] Nowadays, when modern scientists more and more frequently urge the international community not to take water availability for granted,[89] these technical responses could be decisive for upstream and downstream states of the arid and semi-arid zones.[90] For downstream users

such actions could be more useful for solving problems of the quantity and quality of water supplies than the accusations directed to upstream co-riparians regarding poor *irrigation development* and *high profit* hunting as was done by some researchers (in this respect see a short essay by Mr. Sultangazin).[91]

2.7 Conclusion

Taking into consideration the current situation with global water supplies and the unique nature of water resources, Swain appeals to the international community to " change the prevailing attitude towards [water]" : the fluvial waters of transnational river systems could not be treated as a *free commodity* anymore.[92] The historical experience demonstrates that because of the weakness of the international legal basis as well as reluctance of some states to accept the call, use and development of international water resources remain one of the most salient issues in world politics.

Nevertheless, scholars believe that there is a potential for partnership within a co-riparian community. Despite the deep preoccupation with " protecting national security and maintaining economic growth," there are certain ways in international practice, in which states could collaborate on pressing environmental issues.[93] However, one of the main prerequisites should be strictly adhered: cooperation in question should be equal and beneficial for every party concerned.

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CHAPTER THREE

THE CAUSES OF WATER DISPUTES IN THE SYR DARYA RIVER BASIN

The idea of a holistic approach to the environment advanced by Harold and Margaret Sprout claims that in order to understand the political behaviour of states on the international scene, it is not enough to explore geographical factors as geopolitical theories suppose. This means that together with physical features non-physical features should be taken into consideration; " no one variable occupies a pre eminent position."[94] Therefore, in order to address the problem of water disputes in Central Asia, this study will look at (i) *physical milieu* of the region and the basin. Then the study will consider (ii) *competing needs* and (iii) *national interests* of co-riparians. These three factors will be useful in illustrating the main reasons for the water disputes in the Syr Darya River basin.

3.1 Central Asia: General Overview

By Central Asia, the study generally refers to a region, which lies in the middle of the Eurasian continent and covers 5 ex-Republics of the former Soviet Union: Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, and Turkmenistan (see map 2.1). This region has geopolitical boundaries with Russian Federation to the northwest, the north, and the northeast, with People' s Republic of China to the east, with Afghanistan to the south, and Islamic Republic of Iran to the southwest. The region is stretching for 4,077,000 square kilometres and accommodates more than 55 million of people.[95]

2.1 Central Asia

Source: Maps.com. Digital Maps. 2002. <http://www.maps.com> (January 11, 2002).

In terms of geography, the region is characterized by an extremely varied relief: in the east and the south are the Tien Shan and Pamir mountain ranges, covered with glaciers and snow; in the southeast there is the second largest crater lake in the world, the Issyk Kul, and the Fergana Valley; in the southwest and northwest lie the largest deserts in the world, the Kara-Kum and the Kyzyl-Kum deserts; in the west part there is the Caspian Sea, and in the central western part the Aral Sea is located.[96]

Central Asia is rich in natural resources. There are big reserves of coal, natural gas, mineral oil and freshwater resources. However, these resources are distributed unevenly within the region. While most of the energy resources and

the arable land are located in Kazakhstan, Uzbekistan and Turkmenistan; Kyrgyzstan and Tajikistan possess majority of freshwater resources of the region.

2.2 Mineral Resources of Central Asia

Source: United Nations. Regional Environmental Report on the Aral Sea Basin.

For example, Turkmenistan and Uzbekistan have 44 % and 23 % of all regional natural gas deposits respectfully; the western parts of Turkmenistan and Kazakhstan are also rich in oil; besides, there is a large number of coalfields situated to the west of Kazakhstan (see map 2.2).[97] As for hydraulic potential of Central Asia, 81% of renewable surface water resources of the region falls within the territories of Kyrgyzstan and Tajikistan. Furthermore, the main rivers of the region, the Amu Darya and the Syr Darya, originate in mountain ranges these two countries (see map 2.3). [98]

2.3 Water Resources of Central Asia

Source: Kristina Schneider. *Water Resources and International Conflict: Game Theory.* Power

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In spite of promising potentials such as rich natural resources and a tradition of friendly cooperation, the Central Asian countries are still far from achieving economic progress, political stability and social prosperity. The overall situation in the region is aggravated by political and economic competition, which for the last decade has assumed an intensified character. The spirit of this competition penetrated into main spheres of state interaction and set the countries at loggerheads on many subjects, including an issue of management of the two principle rivers of the region, the Amu Darya and the Syr Darya

2.4 The Aral Sea Basin

Source: United Nations. Food and Agriculture Organization. *General Summary on the Countries of the Former Soviet Union*.

The reasons for this current discord on water resources are rooted in events of the early 1990s. With the collapse of the Soviet Union and the creation of new sovereign states, a new international river basin, the Aral Sea basin, appeared in Central Asia. Two large rivers in Central Asia, the Amu Darya and Syr Darya Rivers see map 2.4), which flow into the Aral Sea and feed the national economies of the basin states, became internationally shared water-course systems.

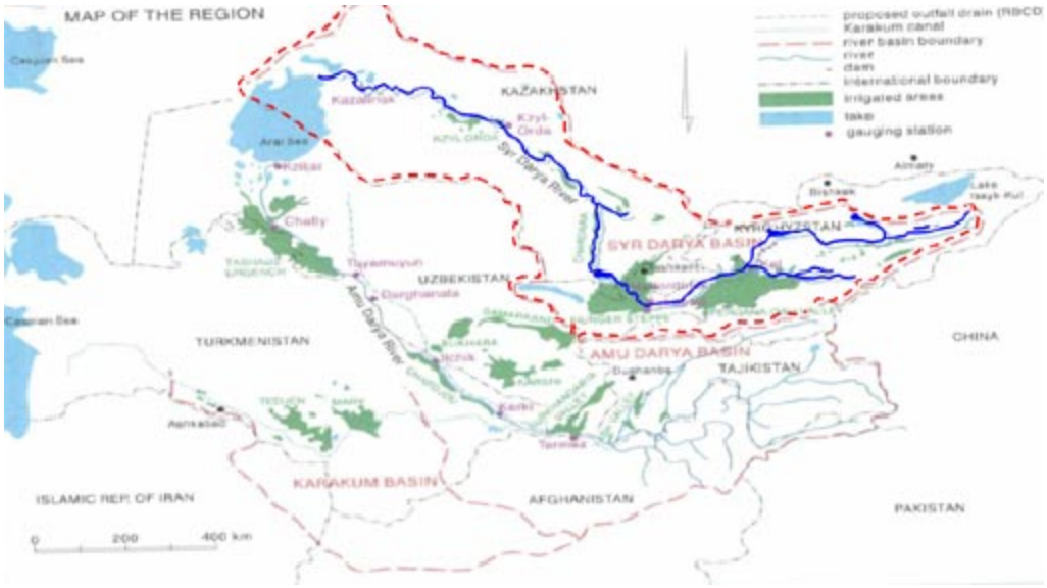
Being located in the arid and semi-arid vegetation zones with poor precipitation and scarce ground water resources, the five independent states are extremely concerned with safe water supplies to meet the demands of their agricultural sectors and growing populations. Therefore, water has been and continues to be a vital factor for the economies as well as for the politics of the region.

The current situation in the region is developing in such a way that the differences of opinion among the states sharing waters of the Syr Darya River system are attracting more attention from the international community than the situation in the Amu Darya River basin. Taking into consideration the alarming point to which disagreements and tensions have reached, it would be worth focusing in this as well as in the next chapters of the study on water disputes between the co-riparians of the Syr Darya River basin.

3.2 The Syr Darya River Basin: Physical Milieu

The Syr Darya River basin is an elongated area, which is situated closer to the southern part of Central Asia. It makes up 99,458 km^2 and stretches from the mountain ranges of Tien Shan in the southeast to the Aral Sea in the northwest.[99] The basin covers 55% of all territory of Kyrgyzstan, includes the Fergana Valley and the Hunger Steppe in the eastern part of Uzbekistan, it passes the northern part of Tajikistan, and stretches further to the northwest of Kazakhstan (see map 2.5).

2.5 The Syr Darya River Basin



Source: United Nations. Food and Agriculture Organization. *General Summary on the Countries of the Former Soviet Union*.

Mountain ranges in the southeast, valleys and deserts in the southern part and plains along both flanks of the Syr Darya River characterize the watershed. The river is replenished during spring thaw by melting snow and glaciers in the southeast and flows in to the basin states draining land in the south and northwest.[100] The River has a diversified hydraulic infrastructure constructed during the Soviet period, which was designed for water storage and flood control in the basin. The network includes dams, reservoirs and irrigation canals along the territories of Kyrgyzstan, Uzbekistan, Tajikistan and Kazakhstan (see table 2.1).

The degree of dependence on water in the basin varies from country to country, and is conditioned by the geographical location of each basin state. While, Kyrgyzstan and Tajikistan are upstream states that possess abundant water resources, Uzbekistan and Kazakhstan are mainly downstream countries, which heavily depend on water resources flowing from the upstream states.

Table 2.1 Hydraulic Infrastructure of the Syr Darya Basin

Country	Number of Main Reservoirs	Total Capacity of Reservoirs (km^3)
Kyrgyzstan	9	22.30
Uzbekistan	21	5.00
Tajikistan	5	n/a
Kazakhstan	1	5.70

Source: compiled by author from several websites of the Food and Agriculture Organization, United Nations.

3.3 The Main Causes of the Disputes

A situation, taken place in the Syr Darya River basin, could serve as an example of how scarce water resources could affect interstate relationships. This situation also shows the water issue is able become one of the reasons of discord between states, which theoretically have more similarities than differences. Indeed, despite geographical proximity, similar cultural background and many other practical factors like common political boundaries or closely connected infrastructure etc., the basin states have failed to cooperate on the issue of shared water resources.

An overview of basin developments illustrates that disputes over the waters of the Syr Darya River basin flared up mainly because of a problem of *equitable water use*. This is because the existence of competing needs of the countries at different industrial levels and opposing interests of the basin states. The problem further falls into two categories: *quantity* and *quality* issues.

While one party in the disputes, Kyrgyzstan, is interested in increasing its water quotas for the production of hydroelectric power, another party, Uzbekistan, continues to insist on increased supplies for rising agricultural needs and a growing population. The third basin state, Kazakhstan is very concerned with both quantity and quality issues. However, it could be easily observed that the country is more preoccupied with the problem of quality of the fluvial waters since its population uses the waters of the basin for drinking purpose mainly.

3.3.1 The Problem of Equitable Water Use: the Issue of Quantity

Initially, the issue of equitable use of water resources was advanced by the uppermost riparian of the Syr Darya River, Kyrgyzstan. This country is interested in making alterations into the current water flow quotas, which it considers

unfavourable (see table 2.2). The main interest of this upstream state is protection of its *energy security*. Taking into account that Kyrgyzstan is highly dependent upon energy resources supplies from its neighbours and easily vulnerable to any stoppage, it could be helpful to study the problem in terms of the *energy sector* of the country.

Table 2.2 Current Water Distribution in the Syr Darya River Basin

Country	Water Flow Quota (million of km^3)
Kyrgyzstan	5.1
Uzbekistan	58.6
Tajikistan	12.0
Kazakhstan	10.9

Source: compiled by author from an article by Ryspek Apasov.

Due to its big water potential (see table 2.3) Kyrgyzstan during the Soviet period was assigned the role of a supplier of water for the irrigation needs of the Republics situated downstream the Syr Darya River. According to the National Plan of the USSR, from 1960 to 1970 a great number of reservoirs and hydrotechnical units were constructed and put into operation on the rivers of this upstream country. The facilities were intended for the development of the rice and cotton-growing industries of Kazakhstan and Uzbekistan rather than for the production of electric power for domestic needs of Kyrgyzstan.[101]

Table 2.3 Renewable Surface Water Resources of the Syr Darya Basin

Country or Zone	Total km^3 per year	Per cent of the Basin
Kyrgyzstan	27.25	73.4
Uzbekistan	4.84	13.0
Tajikistan	0.40	1.1
South Kazakhstan	4.50	12.1

Source: compiled by author from several websites of the Food and Agriculture Organization, the United Nations.

As a result of water policy conducted by Moscow, neighbouring republics succeeded to expand irrigation areas by 400,000 hectares and to increase water supplies by 90%. Kyrgyzstan in turn received a different kind of compensation from the state budget of the Soviet Union for the damage caused. During that period in Kyrgyzstan thousands of hectares of fertile lands, many settlements

and historical places were flooded and lost forever. All these years Kyrgyzstan was being compensated in energy resources, like coal, oil and gas, and money from the federal budget for the maintenance of hydrotechnical units and irrigation systems.[102]

With the disappearance of the single planning authority, " which was estimating profits, costs prices for each riparian, and was mitigating the conflict of interests…by redirecting energy and water resources throughout the region," [103] the resources redistribution system has been broke down. For Kyrgyzstan that process meant drastic drop in supplies of coal, oil and gas. Uzbekistan and Kazakhstan introduced new rules to regulate relationships in the Syr Darya River basin. The two countries began selling energy resources at world market prices while getting free irrigation water from Kyrgyzstan.[104]

For the initial years of independence, this state of affairs remained unchanged. However, after several winter seasons of being cut off from the Uzbek gas-pipeline due to debt and irregular coal/oil supplies from Kazakhstan, Kyrgyzstan could not be dependent upon the goodwill of its neighbours anymore. In June 1997 on Usubaliev' s[105] initiative the Kyrgyz Parliament started to discuss the water issue and the new strategy towards downstream Kazakhstan and Uzbekistan. As a result, a resolution ordering the collection of money for exported water was adopted.[106]

One of the key and important points of the resolution was a plan to allocate the money to be collected from the downstream neighbours for the rehabilitation and the maintenance of water facilities.[107] The reluctance of the basin states to share the cost of maintenance and operation of the hydraulic facilities, situated within the territories of Kyrgyzstan but used by all the basin states, served as one of the reasons why Kyrgyzstan decided to take the step. However, until recently any appeals and/or requests from the Kyrgyz side to economically strong Kazakhstan and Uzbekistan to share the costs did not yield results and were ignored or rejected.[108]

Under the conditions mentioned above and in order to avoid any energy dependency from Kazakhstan and Uzbekistan, Kyrgyzstan started to accumulate water from the northern tributary of the Syr Darya River, the Naryn River, in the Toktogul reservoir (see map 2.6) in summer and to produce electric power in winter for both domestic and export needs.[109] For the period of the last 10 years Kyrgyzstan has increased electricity production from 9.2 billion kW per hour in 1980 to 11.6 billion kW per hour in 1998; more than 85% of output was generated by hydropower.[110]

It would be natural enough to expect that the positions of the downstream co-riparians, in particular, Uzbekistan, could be diametrically opposed to the position of official Bishkek. The country has refused to consider the waters of the Syr Darya River as *a commodity*, which has real value, arguing that changes,

proposed by Kyrgyzstan, contradict the main provisions of international water law. As for the question of the water quotas, the Uzbek side keeps insisting on the water distribution plan of the Soviet era since any alterations would have undesirable repercussions for both the *agricultural sector* and huge *population* of the country.

2.6 The Toktogul Reservoir

Source: Food and Agriculture Organization, United Nations.

The construction of the large-scale hydraulic network upstream the Syr Darya River took place in the 1960s and the 1970s, and brought a significant expansion of arable land in the downstream areas of the basin. In 1960 the total irrigated area covered 2 million hectares out of 8,160 million hectares of arable land available in the basin. In two decades irrigated territories were expanded twofold and made up 3,880 million hectares.[111] As recent statistics demonstrate, by the middle of the 1990s the total area of irrigated territories even exceeded 1960 figures (see table 2.4).[112]

Table 2.4 Total Irrigated Area in the Syr Darya River Basin

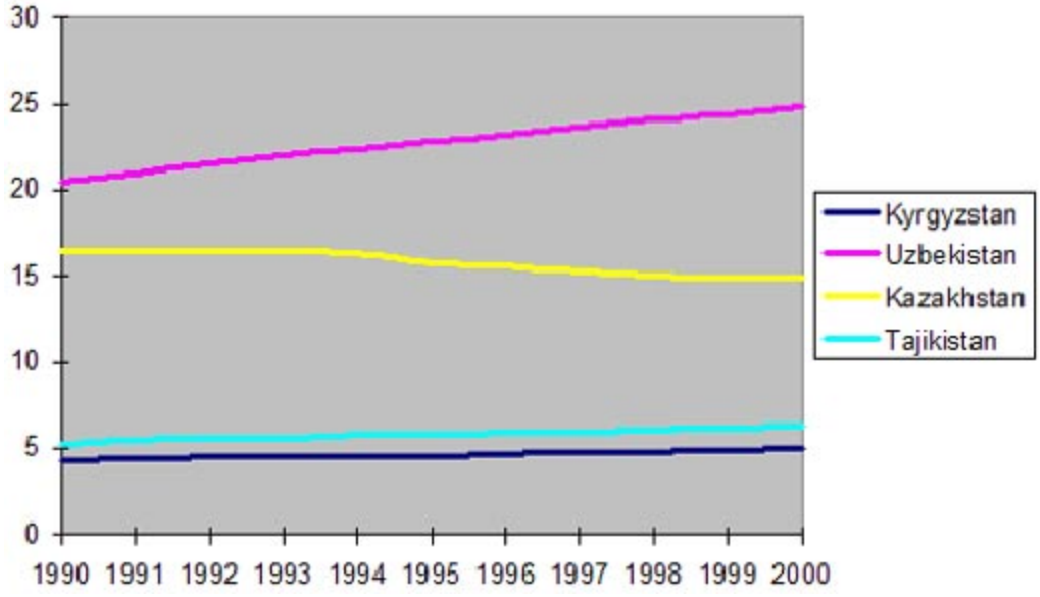
Year	Country	Total Irrigated Area (ha)	Increase for the Period of 1983-1994 (%)
1994	Kyrgyzstan	1 077 100	+ 7.4
1994	Uzbekistan	4 280 600	+ 8.7
1994	Tajikistan	719 200	+ 10.0
1994	Kazakhstan	3 556 400	+ 15.5

Source: compiled by author from several websites of the Food and Agriculture Organization, United Nations.

Striving for economic development Uzbekistan, like other basin states, tends to rely heavily upon its agricultural sector. Since the majority of the arable land is concentrated in the Fergana Valley of Uzbekistan, water resources in that part of the basin are exploited more intensively. The degree of exploitation is aggravated by the fact that the agricultural sector of Uzbekistan is mainly rice and cotton-oriented. These types of crops are considered as cash crops, which bring in big revenue to the state budget. However, there is another side to the cotton/rice industry as it requires stable and substantial water supplies as well as manpower.

Because the population of the country prefers to live near the cultivated land area of the Fergana Valley, agricultural expansion has had an impact not only on the environment of this part of the basin, but also on its inhabitants. Thus, for example, over 10 years the population of Uzbekistan increased from 20.5 million in 1990 to 24.8 million in 2000 (see table 2.5). The annual population growth rate in the country is the highest among the basin states and reached 1.7%. The *population* serves as an additional factor that urges Uzbekistan to take an irreconcilable position and to be intractable in the negotiation processes on water resources of the Syr Darya River basin. The country tries to ensure its *food security*.

Table 2.5 Population of the Syr Darya River Basin



Source: compiled by author from the *Key Indicators of Developing Asian and Pacific Countries* by Asian Development Bank.

Given the water shortage in Central Asia at large and in the basin in particular, Uzbekistan drives itself into dependency upon water supplies from the upstream riparians by cultivating cash crops. However, being " the more powerful [actor] in terms of population, economy resources and military might,"[113] the country expresses a commanding attitude towards upstream Kyrgyzstan. It conducts hard-line tactics in response to any intention of weaker Kyrgyzstan to limit water withdrawals for the irrigation needs of the downstream users.

Kazakhstan in turn is also concerned by the issue of quantity, since the problem is " tied into the greater question of the restoration of the Aral Sea. A certain amount of [water] of the Syr Darya needs to flow into the Sea in order to stabilise its volume and area to protect the area inhabitants and the environment from further harm."[114]

Finally, the second upstream state of the Syr Darya River basin, Tajikistan, has similar demands in terms of water supplies from Kyrgyzstan, however, the total area allocated for cotton is 100 times less than in Uzbekistan. Besides, the country possesses another source of freshwater resources, the Amu Darya River, which is sufficient for the domestic needs of Tajikistan. Nevertheless, the country is also trying to pursue its interests in negotiations over the water issue. However, since it has been involved in civil war during the last decade, its participation in regional negotiations over the water resources of the Syr Darya River basin is still evaluated as minor. [115]

3.3.2 The Problem of Equitable Water Use: the Issue of Quality

Against a background of high population density of people and huge human resources of Uzbekistan, the annual growth rate of the population of the neighbouring Kazakhstan is negative due to migration process to other countries and demographic drops. During the past decade the total population of the country decreased from 16.4 million to 14.9 million (see table 2.4). However, like neighbouring Uzbekistan, water-poor Kazakhstan also actively participates in the water issue because the country considers the quality of the waters flowing from upstream of the river as a matter of *national security*. Such concern is determined by two important factors: Kazakhstan is the last in the chain of water consumers of the Syr Darya River, and the fluvial waters of the Syr Darya River arrive to Kazakhstan " directly from the pesticide-treated [rice] and cotton fields of Uzbekistan with little treatment."[116]

3.4 Conclusion

Impelled by an aspiration for economic development and prosperity the basin states are inclined to act unilaterally in order to gain momentary advantages and to maximize their profits. Such behaviour leads to intense economic competition and enduring political tension in the region in the short term and losses for all parties involved in the long run. Indeed, nowadays the states have a volatile issue on their political agenda, which is recognized by the international community as very tense and unpredictable: the disputes over the waters of the Syr Darya River.

Abandoning the energy-water resource distribution system, the basin states are reaping ' the fruits' of their shortsightedness: the needs and national interests of the co-riparians are in conflict with each other. While Kyrgyzstan needs its water resources to provide its population with heat and electricity in winter, agricultural sectors of the national economies of Uzbekistan and Kazakhstan suffer from sharp water deficits in summer the seasons.

The problem is that each riparian state tends to develop water resources of the Syr Darya River individually and unrestrictedly, without taking into account the water utilization plans of co-riparians.[117] As a result, in spite of post-Soviet " rhetoric in support of coordinated water management," the relationships between the upstream and downstream users of the Syr Darya River basin is characterized by political tension, discord and lack of mutual understanding rather than by willingness to cooperate on a just and wise base.

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CHAPTER FOUR

CONSEQUENCES OF THE DISPUTES OVER THE SYR DARYA RIVER

The lack of agreement on the water resources of the Syr Darya River has negatively affected the political and economic life of the riparian states as well as on the environment of the region at large and on the basin in particular. First and foremost, discord amongst the upstream and downstream users on the issue of equitable water use has triggered political tension and an enduring polemic on *ownership rights* to the transnational water resources. Secondly, irrespective of their geographical positions, the basin states are suffering *economic losses* caused by uncoordinated development and use of the transboundary watercourse system. Finally, for the last decade, there has been growing concern over the *degradation of ecosystems* of the Aral Sea and the Syr Darya River basins as a result of unprecedented pressure on water resources and insufficiently considered practice of water management.

4.1 Basin Polemics on the Ownership Right to Water

Disagreement on the issue of equitable use of the water resources of the Syr Darya River basin has led to a debate related over ownership rights to the transboundary waters. In the disputes there are two conflicting camps, the upstream and downstream riparians, each have their own fixed positions. Upholding its rights, the upper riparian, Kyrgyzstan, is predisposed to claim *permanent sovereignty* over its water resources. The position of this basin state basically implies that the fluvial waters that originate within and run through its territory are the property of the state, and hence could be utilized according to the " interests of national development and well-being of the state concerned."[118]

Since its independence in 1991, Kyrgyzstan has taken a number of measures aimed at changing previously accepted and often uneconomic attitude towards water, existing at the domestic level. The first step goes back to 1994, when the country abrogated the 1972 Water Code of the Kyrgyz Soviet Socialist Republic and put the new Water Law in force.[119] One of the remarkable features of this law was the fact that article 39 of the law released agricultural and forestry sectors of the national economy from payment for water use.[120] Subsequently, this provision was excluded from the 1995 version of the law and never appeared in any following editions. The process of revision of attitude towards water resources has basically demonstrated the desire of official Bishkek to build contract-based relations with local water consumers and later with external users.

Similar developments could be observed in the legislations of downstream Uzbekistan and Kazakhstan. In fact, article 30 of the Law on Water and Water Use of Uzbekistan claims that domestic enterprises, organizations and agricultural sector should pay for the use of surface and underground water resources of the country. These payments, further, go into the state budget and are distributed in accordance with needs of the water industry of the country. In the case of Uzbekistan, the Water Code of Kazakhstan obliges domestic water users, be they industrial enterprises, or agricultural consumers, to pay for water to be supplied for irrigation, industrial and other needs.[121]

The cases illustrate that domestically not only upstream Kyrgyzstan, but also the downstream riparians have recognized their water resources as a commodity, which has its definite economic value. Additionally, the co-riparians consider the water pricing as an effective mechanism to impel water users to rational use of these precious resources and as a great help to national budgets to maintain the national hydraulic infrastructure. Similar steps as well as innovations to the water laws, however, have brought to dissimilar reaction within the riparian community of the Syr Darya River basin.

The new policy associated with regulation of water consumption by domestic and external users, adopted by Kyrgyzstan in the middle of the 1990s and later in 2001, was not adequately supported and understood by its neighbours. The two lower basin countries, Uzbekistan and Kazakhstan have declared that water

resources cannot be a subject of bargaining since the resources are an integral part of a global natural cycle, and thus they do not belong to anyone, but to humankind. In other words, this claim implies that all the riparians have equal rights to use the water resources of Kyrgyzstan.[122] While the statement undoubtedly contradicts provisions of the Kyrgyz legislation, both the Water Law and the Constitution, Kazakhstan and Uzbekistan continue to make attempts to convince the Kyrgyz side to renounce its point of view with respect to the water resources.

In these attempts, the downstream countries have used different tactics towards water-rich Kyrgyzstan, from political pressure and bitter criticism to trade measures. Undoubtedly, trade measures adopted by Uzbekistan and Kazakhstan adversely affect the economy of Kyrgyzstan; however, the political admonitions by the two powerful states are of no small danger in the sense that they set the basin states at loggerheads. Indeed, the approaches and tactics, chosen by the downstream neighbours, trigger natural resistance from official Bishkek and stir up heightened political rhetoric and nationalistic sentiments within Kyrgyzstan.

The behaviour of the downstream neighbours of Kyrgyzstan could be rooted in political and economic might of the lower riparians. Having more favourable initial conditions like rich natural resources, considerable industrial potential and better developed infrastructure, both Uzbekistan and Kazakhstan managed to reach higher rates of economic growth than water-rich but economically poor Kyrgyzstan. Such differences in the development of the national economies led to so-called *political stratification*, when the more developed countries began to demonstrate tougher attitudes in negotiations towards the weaker states of the basin.[123]

This hard-line approach becomes especially evident when the basin states discussed the water issue. During his first official visit to Kyrgyzstan in July 2001, the Kazakh leader, Nursultan Nazarbaev, severely criticized the Law of Kyrgyzstan " On Interstate Use of Water Units, Water Resources and Water Facilities of the Kyrgyz Republic." In particular he claimed that the law " does not have any legal foundation…it is impossible to set a price for irrigation water…it contradicts international standards…it is unacceptable for Kazakhstan." [124] Echoing the statement of the Kazakh leader, the Prime Minister of Uzbekistan, Utkir Sultanov, declared that adoption of the law " is none other than a result of deputies' ambitions of the Kyrgyz parliament."[125]

There is an interesting and contradictory nuance in these reprimands that makes cooperation in the basin questionable or even impossible. When it comes to the issue of domestic natural resources, the legislative bodies of the co-riparians have something in common with each other: they claim state ownership of their natural resources, including water.

The land, its minerals, fauna and flora, as well as other natural resources shall constitute the national wealth, and shall be rationally used and protected by the state.

(Constitution of the Republic of Uzbekistan, Part III, Chapter 12, Article 55.)[126]

In the Kyrgyz Republic the land, its underground resources, water, forests, flora and fauna, and other natural wealth are used as a basis of life and activity of the people of Kyrgyzstan, and are under special protection of the state.

(Constitution of the Kyrgyz Republic, Chapter 1, Section 1, Article 4.)[127]

The land and underground resources, waters, flora and fauna, other natural resources shall be owned by the state.

(Constitution of the Republic of Kazakhstan, Section I, Article 6, Paragraph 3.)[128]

The above-mentioned provisions affirm the excusive right of the states to natural resources, including water, and exclude any claims from other states. In spite of similar attitudes towards resources, both Kazakhstan and Uzbekistan are reluctant to recognize the ownership rights of Kyrgyzstan to the water resources. The noteworthy fact here is that these resources originate exclusively within the sovereign territory of Kyrgyzstan and they do not receive any replenishment from rivers of the contiguous states. Unwillingness together with a hidden aspiration of the lower riparians to " undivided, gratis, and thus irrational consumption"[129] of the water resources of the sovereign Kyrgyzstan undermines any attempts to solve the water disputes in the Syr Darya River basin. As a result, every party of the disputes comes off worst.

4.2 Economic Damage

In the absence of agreement on how to develop and use the water resources of the Syr Darya River, both upstream and downstream states are incurring considerable economic losses. While Kyrgyzstan has to bear costs related to the maintenance and operation of hydrotechnical units and other facilities, downstream Uzbekistan and Kazakhstan suffer mainly from economic damage caused either by floods or droughts.

In fact, the broad hydrological system of Kyrgyzstan with its dams, reservoirs and irrigation cannels requires more than US$ 25 million of annual investments. For the poorest country of Central Asia, which is " not in transition..[but] a developing country ..sinking into poverty," [130] such an amount is a backbreaking burden. In 2001 the Kyrgyz government could allocate only US$ 8 million for the maintenance and operation of the system.[131] Even though these allocations are

just one third of the investments required, for Kyrgyzstan, which has been experiencing a protracted economic crisis since its independence, such costs mean aggravation of the situation within the country. Therefore, the uppermost state is hardly able to provide alone a proper and regular maintenance of the infrastructure, which is important for all riparians. As a result of the inability of Kyrgyzstan to manage the situation alone as well as refusal of Kazakhstan and Uzbekistan to share the costs, the hydraulic system is continuing to dilapidate, causing high water losses by evaporation, infiltration and other reasons.

Asserting its national interests, upstream Kyrgyzstan has gradually changed the operating regime of the hydraulic system, initially designed for the irrigation needs of the lower riparians of the basin. Nowadays the infrastructure serves mainly the needs of Kyrgyzstan: it produces more than 80% of the energy required for domestic and export purposes in winter, and irrigates the Southern agricultural fields in summertime. Since the infrastructure was not designed for energy generation, it slowly deteriorates, threatening the stability of electricity supply to Kyrgyzstan in cold seasons. For the downstream states the consequences of the transformation of the operating regime are also unfavourable: floods in winter months and severe water deficits in summer.

In fact, the recent reports clearly illustrate the scope of the economic loss, sustained by the lower riparian states of the Syr Darya River basin. In Uzbekistan, the agricultural sector of the national economy is especially vulnerable to fluctuations of water supplies, which reduce an area of agricultural fields and result in decreases in crop yields. Downstream Kazakhstan is also concerned with the water issue because of the way in which the upper riparians develop the basin water resources directly affects both the health condition of its population and the environment.

Since the water level of the Syr Darya River heavily depends on the water of its main tributary, the Naryn River, the consequences of any interference upstream the river are immediately observed in downstream parts of the basin. Whenever Kyrgyzstan discharges water from the Toktogul reservoir, the enriched flow from the Syr Darya River dashes to the Fergana Valley of Uzbekistan, fills the Kayrakkum reservoir of Tajikistan, crosses again the territory of Uzbekistan and then flows into the Chardara reservoir of Kazakhstan. At that point a problem of floods on the Uzbek side occurs because the coming water often exceeds the storage capacity of the Kazakh reservoir and results in outflow to the lower reaches in central Uzbekistan.

According to Uzbek officials, because of unscheduled water releases by Kyrgyzstan in winter months, for the last 5 years the water level of one of the lower reaches of the Syr Darya River, the Arnasay River, rose to 7.5 meters.[132] In 2000, during one such outflow, 750 m^3 of water a second was flowing down into the reach, flooding 350,000 hectares of arable land.[133] These floods also damaged road infrastructure, power transmission network and social facilities of

the central and Eastern parts of Uzbekistan. In 2001, the government of the country claimed that " because of Kyrgyzstan' s extensive water discharge..the total loss for Uzbekistan reached almost US$ 1 billion."[134]

Until recently the situation with floods has remained disastrous: " a number of residential areas and agricultural farms of the eastern Uzbekistan [were] under threat of being flooded because 650-700 m^3 of water [were] being released from the Toktogul reservoir."[135] As recent reports say, despite high overall demand for hydroelectricity and sharp energy crisis when some regions are cut off the power, Kyrgyzstan agreed to decrease the water flow from the reservoir to 500 m^3 per second.[136]

In addition to the issue of floods in winter seasons, there is a problem of water deficits in Uzbekistan. For a period of the last two years this country has experienced considerable drop in harvest due to severe dry summers multiplied by a shortage of water.[137] In 2001 the country sustained a considerable loss because water flows in one of the two main sources of its irrigation, the Syr Darya River, were reduced by 40 %.

Kazakhstan, the last water recipient, is also extremely anxious about any water mismanagement, which may take place in the upstream parts of the Syr Darya River basin. This is so because the agricultural and fishing sectors of the national economy are heavily dependent on fluvial water. However, for Kazakhstan the water issue is associated not only with the problem of quantity but also with the concern for water quality.

In fact, when Uzbekistan irrigates vast area of pesticide-treated cotton/rice fields, the water of the Syr Darya River deteriorates seriously in quality.[138] Poor quality together with shortages is causing economic damage as well as irreplaceable harm to the ecology and population of Kazakhstan. As a result, the damage to the national economy is burdened by the cost of measures required to mitigate ecological consequences of the inadequate water management upstream the river.

By virtue of its geographical and climatic conditions, only the southern part of Kazakhstan and areas along the riverbed and in delta of the Syr Darya River are fit for the cultivation of crops.[139] As in case of neighbouring Uzbekistan, a majority of these agricultural fields, especially in central Kazakhstan, are vulnerable to seasonal droughts and natural water fluctuations that now occur more frequently.

Studies conducted by different institutions have noted the great water deficit experienced by this downstream state: the average level of water supply has dropped to 60% and to 5-10% in its central parts.[140] In addition to the natural causes of water shortage, the situation with water supplies in Kazakhstan has been aggravated by unilateral measures taken by its neighbour, Uzbekistan.

Thus, for example, in 2000 about 15,000 hectares of cotton fields of Kazakhstan did not receive enough irrigation water. As a result, about 30% of the harvest was lost.[141]

After several decades had elapsed, it would be right to maintain that the fishing industry of Kazakhstan has also turned out to be the most affected sector of the national economy. This sector have fell into decay due to insufficient quantity and poor quality of the water of Syr Darya River. For example, in the 1960s, there were 2 fishing centres, the Aral fish enterprise, 8 fish plants, and 19 collective fish farms in the delta of the river; 61,000 workers were involved in the production and processing of fish.

However, due to the water deficit as well as pesticide poisoning of the river water, since the 1970s the fish catch gradually declined to almost zero level in the 1980s, sparking a " collapse of the industry and employment in this sector."[142] From the end of the 1990s Kazakhstan has taken a number of measures to revive its fishing industry; however, unilateral actions by neighbouring Uzbekistan have often threatened these undertakings. In spring 2001, the water level in one of the biggest Kazakh reservoirs, the Chardara reservoir dropped because the water flow was stopped by upstream Uzbekistan. This action caused danger to spawning fish in the reservoirs and rivers, and threatened the remaining fishing industry of Kazakhstan.

Recent research claims that despite the efforts of Kazakhstan to rescue its fishing sector in the Aral Sea and the Syr Darya River basins, the fishery in these parts of the country is continuing to decline and disappear. As a result, " only 1,800 people still work in the industry on *imported* and domestic fish."[143] Nowadays, the water shortage is considered as one of the most significant problems making difficult the sustainable development of Kazakhstan.

In spite of the existence of numerous water agreements signed by the basin states since the end of the 1990s the problem of unilateral measures in the basin has became more serious. This has prompted competition between different sectors of the national economies and affecting relationships between the co-riparians.

4.3 Environmental Impact

The unresolved issues relating to sharing of the watercourse system as well as unrestricted unilateral use of the water resources has led to the alarming degradation of the ecosystems of the terminus of the Syr Darya River, the Aral Sea, and the river itself. Current events in that area serve as a warning to the basin states: environmental deprivation does favour neither upstream nor downstream states.

The more cotton/rice fields have been developed downstream the Syr Darya River basin, the more fluvial water was diverted for cultivation of water-intensive crops. In order to increase productivity, crop expansion was accompanied by unlimited use of chemical fertilizers, pesticides and defoliants, which have been poured onto the fields. The chemicals in turn were " not only discharged into the river through drainage canals, but have also filtered through to the groundwater when land [was] flushed by huge amounts of irrigation water." Then the groundwater carried minerals and chemicals to the surface, where they were left to accumulate after the evaporation of the water. As a result, the water of the Syr Darya River, the groundwater as well as soil of the basin became highly polluted, affecting directly the population of the riparian states.

Unprecedented pressure on and unrestricted use of the water resources for irrigation needs result in sharp declines in stream flows into the Aral Sea and the degradation of the highly productive deltaic lands of the Syr Darya River. The delta region became desiccated or salinized, provoking a shortening of the vegetation period and a loss of wildlife.

The Aral Sea was once the fourth biggest inland sea in the world, feeding for centuries riparian societies and maintaining fragile natural balance in the region. Today the Sea together with its main water arteries has become " the most serious consequence of water mismanagement in Central Asia." In the 1960, before the cotton/rice campaign, the Aral Sea surface was 66,100 km^2 with a maximum depth of 68 meters and the salt content of 1% only. Starting from the 1960s when the river systems were diverted for irrigation the flow of water into the sea began to drop. 27,000 km^2 of the former sea bottom became dry surface, about 60% of water volume was lost, the sea level declined 14 meters, and the concentration of salt doubled.[144]

Today, an estimated 200,000 tones of salt and sand are being carried away by wind and discharged within a radius of 300 km every day. Recent research asserts that this salt and sand are gradually changing natural landscape around the Aral Sea. In fact, " a new desert has appeared to the south and east of the sea." This so-called white desert has a tendency to expand very quickly across the territories of some basin states. Every year it spreads a further 150,000 hectares.[145]

Another negative consequence of water mismanagement is the change of climatic conditions of the Aral Sea basin at large and the Syr Darya River basin in particular. According to some reports, over the several decades droughts and sand storms more frequently have affected the riparian areas and have become a normal natural phenomenon in the basins. Such changes have negatively affected the basin populations, prompting high rates of cancer-related diseases and infant mortality.[146]

High reliance on water-intensive crops such as cotton or rice downstream the Syr Darya River was fraught with serious consequences for the environment of the basin. First of all, for the period of 1970-1980s the river did not reach its terminus, the Aral Sea. As a result fourth largest lake in the world have began to shrink and became " one of the world's most staggering disasters of the 20th century."[147] Secondly, the natural landscape of the basin has started to change drastically, which in turn resulted in significant changes of weather conditions. Finally, societies leaving along the river have suffered from the diseases caused by unlimited use of pesticides/defoliants and climate changes.

4.4 Conclusion

The disputes over the water of the Syr Darya River adversely affect the political, and economic situation in the basin at large and in each riparian state in particular. In addition, inadequate water development and use causes degradation of the environment of the basin states independently of their geographical locations. The aspiration for economic development attended by a desire to gain unilateral and momentary advantages affects the relationships within the riparian community.

Trying to pursue national interests in a unilateral manner and at the expense of each other, the co-riparians more and more drift towards political confrontation and fierce economic competition. Furthermore, discord over the water of the Syr Darya River basin exhibits a tendency to become a political game rather than an opportunity to combine efforts to resist the dangerous consequences of water mismanagement. The basin states have adopted a market economy and are not ready to give away or sacrifice its water resources and needs for the good of others. Under such circumstances crucial practical issues concerning the revision of water management and the rehabilitation of hydraulic infrastructure of the basin are left out of focus of the game.

Besides, the water issue in the Syr Darya River deserves special attention and concern since it has the potential for conflict not only at the state level but also between peoples. Some of the basin states are already burdened by the bitter experience of bloody confrontation with each other in the recent past. Therefore, political games and speculations on the water issue at both the interstate and domestic levels are fraught with serious consequences in the ethnically diverse environment of the region.

To sum up, the lack of accord on the development and use of the water resources of the Syr Darya River basin results in economic damage for the parties and speeds up the environmental degradation of both the Aral Sea and the Syr Darya River basins. Furthermore, the disputes over the waters of the

river aggravate political tensions between the co-riparians and undermine regional security in Central Asia.

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CHAPTER FIVE

GOVERNMENT RESPONSES TO THE WATER ISSUE

Facing new realities of the early 1990s, the Central Asian countries have recognized the necessity to legally adjust their upstream-downstream relations. Over the last decade, the riparian states signed several water treaties and established different interstate organizations in an attempt to achieve this goal. The provisions of these treaties as well as functions of the institutions have gone through a process of corrections and revisions. Yet, they turned out to be

unsuccessful in settling the riparian discord between some Central Asian states; namely between Kyrgyzstan, Uzbekistan and Kazakhstan.

Some researchers of water politics hypothesise that the failure of the treaties and the basin arrangements was a result of the time factor, when " the states were forced to rapidly develop management strategies and assume responsibility"[148] imposed either by the treaties or by the institutions. Undoubtedly, the swift political developments of that period did not allow the basin states to negotiate thoroughly the water issue or to develop a sound model of upstream-downstream relations. Nevertheless, there were other crucial factors that undermined the efforts of the co-riparians. These factors included the flat reluctance to forgo individual interests in the name of regional cooperation, the desire for unilateral profit, and the weakness of the enforcement mechanisms of the agreements concerned.

5.1 The 1992 Water Treaty

In February 1992, several months after the fragmentation of the Soviet Union, representatives of all Central Asian countries gathered at Almaty (Kazakhstan) to negotiate the management of the water of the region. The meeting resulted in the signing of a treaty on Cooperation in the Field of Joint Management, Use and Protection of Water Resources. The treaty was the first attempt in the history of the newly independent states to settle the water issue that gradually became visible in state interactions. There are several points that make this treaty noteworthy.

First of all, there is a preamble that introduced the main concern of the treaty: " socio-economic problems..[and] ecology -related tension, which have appeared as a result of exhaustion of water resources."[149] Unquestionably, the disintegrative processes of the early 1990s adversely affected social standards and the economic situations of the majority of the countries. However, the degree of dependence of the national economies on water supplies, as discussed in Chapter Four, makes it possible to assume that the expression *socio-economic problems* probably referred to challenges faced by the downstream water users.

As for environmental degradation caused by the " exhaustion" of water resources, the way in which this statement has been formulated raises questions. Definitely, there are acute ecological problems in the region associated with desertification and salinization, bio-diversity loss, the shrinking the Aral Sea and others. It is important to emphasize here that degradation has been caused by water mismanagement rather than by the alleged exhaustion of the precious resource.

In fact, recent research has found that the average water consumption in Central Asia is two times higher than in industrialised countries, possessing plentiful

water resources.[150] Such high consumption is a result of deterioration of irrigation systems as well as hydraulic units and facilities. For the last ten years little has been done to rehabilitate the hydraulic infrastructure, and to reduce consumption. Moreover, speculating on ecological issues, some riparian states have striven to secure guaranteed water supplies for their water-dependent industries instead of reducing their extravagant water use for the sake of the environment of the region.

Other remarkable points, in terms of their significance for establishing a model of upstream-downstream relations, were stipulated in articles 1, 3, 6 and 12 of the treaty. Thus, for example, article 1 gave the signatories to the treaty equal rights to water resources of the region. Article 3 confirmed the agreement of the co-riparians " not to take any actions that could affect the interests of other parties, which could do damage or result in changes of agreed water releases and lead to pollution of water sources."[151] Further, article 6 pointed out that a littoral state could not make a unilateral decision to develop and use its water potential. In the end, article 12 referred to the consent of the parties " to elaborate a mechanism of economic and other responsibility for breach of established water regime and quotas."[152]

The last article 7, stipulating the establishment of an interstate water coordinating commission, could be named the most important item of the treaty.[153] This is so because the proposed commission could become a facilitator in the process of defining the needs of each littoral state and smoothing out conflicts between the co-riparians. In reality, this commission was unable to overcome riparian discords within the region and to resolve conflicting interests of the upstream and downstream water users.

Analysing the provisions of the 1992 water treaty, it becomes obvious that the treaty had been initially doomed to fail because of its narrow focus on the economic and environmental problems of the downstream states, Uzbekistan and Kazakhstan. The treaty basically gave approval for water allocation schemes, which worked successfully in the conditions of the united planned economy.[154] The document neglected to consider the new political realities of the early 1990s. This shortcoming led to a situation, when the needs and interests of the upstream countries, Kyrgyzstan and Tajikistan were given up to the economic well-being and the ecological safety of the downstream neighbours, Uzbekistan and Kazakhstan.

Besides, there is another issue, which brings into question the legitimacy of this treaty. One of the signatories to the document, namely, the Minister of Water Economy of Kyrgyzstan, " did not have the proper authority to sign an international agreement."[155] Later, this omission contributed considerably to the desire of the state to abrogate the unprofitable agreement and to begin negotiations on a new one.

5.2 The 1996 Treaty

The next attempt to create a viable framework for the upstream-downstream relations in Central Asia dates back to April 1996, when delegations from Kyrgyzstan, Uzbekistan and Kazakhstan met in Tashkent (Uzbekistan). Learning a lesson from the earlier treaty, the parties concluded an intergovernmental treaty on the Use of Energy and Water Resources, Construction and Exploitation of Gas Pipelines of the Central Asian Region, which to some extent was profitable for the co-riparians.

The new orientation of this treaty can be easily observed from its title and article 1. The article gave one to understand that the parties eventually recognized the indissoluble connection between the water issue and energy problems in the basin. This understanding came after a number of incidents, which occurred over 1992 to 1995. During this period under the pressure of the circumstances discussed in Chapter Three, upstream Kyrgyzstan changed the operational regime of the Toktogul reservoir from irrigation to power mode, which meant less water was released downstream. Such changes immediately affected economies of downstream Uzbekistan and Kazakhstan, prompting them to link the water issue with supplies of energy resources to upstream Kyrgyzstan.

The main points of article 1 included (i) the co-financing and join implementation of energy projects, (ii) the elaboration of the principles of sharing costs associated with the operation and maintenance of interstate water facilities and (iii) " joint responsibility for non-observance or unconfirmed alterations of energy resources supply schedule as well as reservoir operational regimes adopted by the parties."[156] Further, article 3 of the treaty consolidated the commitment of the co-riparians to build their relationships in the field of power engineering " on the basis of complementarity and mutual benefit."[157] Article 6, then, stated that the member-states undertake to " carry out common coordinated policy in the sphere of water use and energy sector."[158]

None of these items was observed in full. In spite of the recognition of the strong link of water and energy problems, neither the upstream nor downstream riparians could put into practice the idea of the exchange of water for energy supplies as advanced in article 1. Thus, for instance, the government of Kazakhstan failed to find funds to buy coal from its privatised coal sector for subsequent delivery to Kyrgyzstan. At the same time, Uzbekistan cut gas supplies to Kyrgyzstan because of its debt. Upstream Kyrgyzstan in turn directed its water potential to make up for the energy deficiency caused by these non-deliveries. As a consequence of the change of the operational regime of the Kyrgyz main reservoir, both Uzbekistan and Kazakhstan suffered water shortages in the summer months.

Furthermore, statements on resource transfers, based on mutual benefits, also remained on paper. While energy-rich countries, Uzbekistan and Kazakhstan increased the export price of their coal and gas up to the market level, Kyrgyzstan over 1995 – 1997 was exporting electricity to its neighbours at a minimum, if not scanty, price: 0,02 cent per kWh to Kazakhstan and 3 cent per kWh to Uzbekistan. For comparison, the average market price of electricity during that period was 6 cent per kWh. Nevertheless, given minimum prices, Kazakhstan did not pay for the electricity imported from Kyrgyzstan, incurring debts of US$ 25 million.[159]

Despite the beneficial provisions for both the upstream and downstream water users, the 1996 treaty also failed. The signatories pursued their own unilateral interests and they were reluctant to stick to previously agreed provisions.

5.3 The 1997 Treaty

In the summer of 1997 Kyrgyzstan, Uzbekistan, Tajikistan and Kazakhstan conducted series of roundtable meetings, backed by the Environment Policy and Technology Project of the U.S. International Development Agency. In September 1997 after preliminary consultations the basin states signed a new treaty on the Use of the Syr Darya Water Resources.[160]

Like in case of the previous treaties, there were certain items that deserved to be examined. The first item is article 4 of the treaty, which provided for compensation to the upper riparian, Kyrgyzstan, for energy loss as a result of the reduction of water releases during the winter period. The article further explained that compensation should be made in the form of coal, gas, and electricity or their monetary equivalents. The article also added that " a tariff should be included in these exchanges based on the cost of operation, maintenance and reconstruction of hydrotechnical facilities."[161]

The treaty generally repeated some principles, which had been incorporated in previous treaties. Namely, it stated that the signatories agreed to implement joint hydropower projects, to reduce pollution of the river and to develop water saving technologies. What is of crucial importance in this treaty was the idea to " promote the use of money as a replacement for the current water and energy barter."[162] Perhaps, this idea is worthy of further attention and study.

Besides, for the first time some technical details were discussed and appeared directly in the agreement. Some of these details were as follows: Kyrgyzstan was supposed to receive 1.1 billion kWh of power in electricity or coal valued at US $ 22 million from Kazakhstan and 400 kWh of power plus 500 m^3 of gas valued at US $ 48.5 million from Uzbekistan. Undoubtedly, such details were in favour of Kyrgyzstan in the sense that they determined the amounts of energy supplies as

well as their fixed monetary values. In return Kyrgyzstan should deliver 3.25 km^3 of water from the Toktogul reservoir in monthly flows and 1.1 billion kWh of summer hydroelectricity to both Kazakhstan and Uzbekistan.

Nevertheless, the 1997 treaty was also unsuccessful. This time the issue of payment of operation and maintenance costs became a stumbling block between the upstream and downstream states. Besides, there was the lack of agreement on tariffs for the Kyrgyz electricity. This discord was rooted in the fact that Uzbekistan was supposed to pay more than Kazakhstan for the same amount of electric power supplies.[163]

5.4 The 1998 Treaty

The next official negotiations on the issue of water sharing and energy trade took place in March 1998 in Bishkek (Kyrgyzstan). The meeting resulted in the signing of two important documents: a treaty on the Use of Water and Energy Resources of the Syr Darya River basin and a specific treaty on the Joint and Combined Use of Water and Energy Resources of the Naryn-Syr Darya Cascade of Reservoirs in 1998.

The treaty on the Use of Water and Energy Resources of the Syr Darya River basin consisted of the fourteen articles. Among of them, provisions of articles 1, 3, 4 and 7 deserve special attention in the sense that they reflected additional approaches towards the water and energy problems of the co-riparians.

Article 1 of the treaty determined two types of the operational regime for the Naryn-Syr Darya cascade of reservoirs with a particular schedule for each of the regimes. Thus, for instance, the reservoirs were supposed to operate in the growing season regime from April 01 to October 01, whereas the non-growing season regime should begin in October 01 and finish in April 01.[164] In general terms, such concrete schedules were designed to achieve a balanced operation of the hydraulic infrastructure of the Syr Darya River basin. In terms of specific goals, this schedule could allow the downstream water users, Uzbekistan and Kazakhstan to obtain irrigational water in time.

Drafting article 3 of the treaty, the co-riparians tried once again to seek mutual commitments not to affect the interests of each other. The article consolidated this step by declaring that " the parties commit themselves not to take actions infringing upon the agreed operational regime and delivery schedule of energy resources."[165] In practice, however, some of the co-riparian states, due to different reasons and under some circumstances, failed to comply with this provision.[166] In fact, while the Kyrgyz and Uzbek sides managed to meet the provision, Kazakhstan with its privatised energy sector interrupted several times

supplies for the circle electric grid of Central Asia, causing considerable losses in Kyrgyzstan and Uzbekistan.

The next important point, article 4, obliged downstream Uzbekistan and Kazakhstan to buy equal shares of Kyrgyz hydroelectricity, which was generated during the water releases in the growing season. According to this article, payments for electric power should be carried out in the form of coal and/or gas supplies or in money.

Finally, article 7 introduced the issue of costs related to the operation and maintenance of hydraulic units. In particular, it stated that " the operation, maintenance and reconstruction of hydraulic…facilities shall be covered in accordance with the ownership of the property referred to in the balance sheet and the legal right of ownership."[167] Such wording probably was in favour of the lower riparian states because the main water facilities of the Syr Darya River basin, which serve mainly the needs of Uzbekistan and Kazakhstan, are situated upstream the river, in Kyrgyzstan. So, by referring to the ownership of the property referred to in the balance sheet and the legal right of ownership, the downstream water users succeeded to avoid the considerable capital investments required to keep the facilities in a proper working condition.

In the course of the Bishkek meeting, the co-riparians also concluded a specific treaty on the Joint and Combined Use of Water and Energy Resources of the Naryn-Syr Darya Cascade of Reservoirs in 1998. In general terms, this treaty was beneficial for each riparian state since its articles 1, 2, 3 and 4 provided very concrete information about energy resources deliveries to Kyrgyzstan as well as water supplies for Uzbekistan and Kazakhstan. Besides, article 6 of this treaty clearly stated that commitments on water supplies by Kyrgyzstan would be fulfilled only on condition that the lower riparians would perform their obligations related to coal/gas supplies and electricity imports. Finally, under article 7 Kyrgyzstan was required to decrease its energy consumption by 10%, which was undoubtedly profitable for the downstream neighbours.

The treaty on the Use of Water and Energy Resources of the Syr Darya River basin together with the specific treaty was recognised as " a great achievement in the area of solution of water and energy problems."[168] Indeed, these documents were aimed at finding the most perfect and just solution to the water issue and energy sharing in the Syr Darya River basin. Nevertheless, like in previous cases, the two treaties failed by and large because of the non-compliance problem.

5.5 The 1999 Draft Agreement

In 1999 Kyrgyzstan, Uzbekistan and Kazakhstan made a decision to revise the specific treaty on the Joint and Combined Use of Water and Energy Resources of the Naryn-Syr Darya Cascade of Reservoirs in 1998 because of the problems associated with non-observation of its provisions. The parties worked out a new draft agreement, which reiterated the main provisions of the previous document and included some new proposals of the co-riparians.

This draft agreement reflected the opposed nature of the upstream-downstream relations within the riparian community of the Syr Darya River basin. In general, the essence of this antagonism lies in the fact that while Kyrgyzstan was interested in prolongation of the provisions of the 1998 specific treaty, downstream Uzbekistan and Kazakhstan tried to abrogate the concrete schedules of energy resources deliveries adopted in 1998.

The new proposals included a requirement that Kazakhstan pay off its electricity debt to Kyrgyzstan, which suggested certain items that would oblige Kazakhstan to pay up. Kazakhstan, however, was against such modifications. Besides, the downstream states expressed their desire to revise the electricity tariff proposed by the Kyrgyz side, arguing that it did not meet market realities within the countries.[169]

As a consequence of the lack of agreement among the co-riparians, the 1999 Draft Agreement failed to get beyond the initial stage and has never been signed.

5.6 The 2002 Initiatives

According to recent press reports Kyrgyzstan, Uzbekistan and Kazakhstan have approved a draft of a new intergovernmental treaty on the use of water and energy resources of the Syr Darya River basin.[170] This draft treaty is of great interest for the future in the sense that it can shed light on the new approaches of the basin states to the water issue.

5.7 Conclusion

For a decade the co-riparians of the Syr Darya River basin have been negotiating water sharing and energy transfer issues. These talks resulted in the signing of interstate treaties and the creation of different interstate institutions. As time has shown, these treaties as well as the institutions were unable to resolve discord between the riparian states of the Syr Darya River basin; namely between Kyrgyzstan, Uzbekistan and Kazakhstan.

There are different forces that weaken the agreements and the arrangements. Thus, for example, one of the main reasons for the failure of the 1992 Water Treaty was the flat reluctance to forgo individual interests in the name of regional cooperation. In fact, the Treaty served the unilateral interests of the downstream riparians, leaving behind the needs of the upper riparian states. Being frustrated by this limitation, the upstream state continued to agitate for more favourable conditions, destabilizing the treaty.

As for the subsequent treaties, they failed mainly because of the aspiration for short-term unilateral profit and the weakness of the enforcement mechanisms of the agreements, which in turn created a non-compliance mentality. Indeed, attempting to cope with economic challenges of the 1990s, both upper and lower riparians fixed high export prices for their resources, be they minerals such as coal, gas and oil, or energy in the form of hydropower. Such attitudes contributed to regional disintegration and made it difficult for the co-riparians to stick to mutual obligations under the treaties.

Being impeded by these forces, the provisions of the treaties have failed or remained paper agreements only. In reality, Kyrgyzstan, Uzbekistan and Kazakhstan have continued to dispute over the transnational water resources of the Syr Darya River basin.

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CHAPTER SIX

CONCLUSION

Having analyzed the disputes over the waters of the Syr Darya River basin from their inception in the early 1990s to the present day, three tasks remain in this study. First, is to answer the research question posed in Chapter I, on the base of the historical approach. Second, is to reconsider the four main factors mentioned in Chapter I in terms of their role in promoting or impeding cooperation among the basin states. Finally, the study will propose a set of recommendations that might be useful in the sense that they could help to resolve the disputes between the upstream and downstream states of the Syr Darya River basin.

6.1 The Impact of Water Disputes on Interstate Relations

In the specific case of the Syr Darya River basin, how have the water disputes affected interstate relations?

With the disappearance of a single authority in the field of resource management, the Soviet Union, each basin state proclaimed the excusive right to its natural resources, including water (see page 62). These actions by the co-riparians

could be explained by the fact that the Central Asian countries became autonomous actors and started to interact with each other in traditions of the realist concept of sovereignty, as discussed in Chapter II. In other words, the countries have striven to maximize their individual utilities, to protect national interests and preserve their position in the absence of central authority. In terms of natural resources, the co-riparians were inclined to treat their coal, gas, oil or water as strategic resources and were generally interested in unilateral exploitation for their national developments.

Insistence on sovereignty and independence in the field of resource management negatively affected state interaction within the basin. The countries have repeatedly clashed with each other over the issue of how to use and develop natural resources. Especially heated controversy flared up about those resources that transcend state boundaries, the international shared watercourse system, the Syr Darya River.

A review of the history of riparian discord in the Syr Darya River basin provides certain facts, which demonstrate that since the early 1990s the water issue has adversely affected and continues to aggravate interstate relations within the basin. Developing in a negative direction, these interactions passed through several stages: from the relative lull of the early 1990s to mutual disappointment of the middle 1990s, and finally to open rivalry in the late 1990s/ beginning of 2000s.

After gaining independence in 1991, the Central Asian countries hurried to assure each other that their relations in the field of management of transboundary watercourse systems of the region would be unchanged. The states decided to keep the water allocation schemes, which had been developed in the conditions of the united planned economy of the Soviet Union. This initial stage of state relationships was characterized by a relative lull and the illusion that the previous allocation schemes could be feasible in new political and economic realities of the post-Soviet period.

The next stage of state interaction on the water issue could be dated back to the period of 1993-1996, when these relations started to show obvious signs of strain. During these years upstream Kyrgyzstan re-directed several times its hydraulic potential from irrigation to hydropower generation in the winter seasons. In reply to such actions, the Uzbek side threatened to halt gas deliveries to Kyrgyzstan, and thus forced Kyrgyzstan to meet its commitments under the 1992 Water Treaty. This period is noteworthy due to the fact that for the first time in the history of riparian relations, one basin state used its natural resources as a tool to compel another one to follow certain obligations.

The relative lull and the illusion of the middle 1990s changed into a period of mutual disappointment and accusations of the late 1990s/ beginning of 2000s. Over 1997-2000 the relationships between the basin states continued to exhibit a

tendency towards deterioration and reached utterly their critical point in the summer of 2001. In fact, in 1997, due to a shortage of gas deliveries from Uzbekistan and irregular coal/oil supplies from Kazakhstan, Kyrgyzstan made a decision to revise its relationship with downstream Uzbekistan and Kazakhstan. In particular, the upstream state adopted a resolution, which stipulated that money should be paid for water releases downstream. Furthermore, upstream Kyrgyzstan adopted Uzbekistan' s methods and began to use its abundant water resources as a tool to force its two downstream neighbours to supply energy resources in time and at the relatively acceptable prices. During this period the co-riparians began to clash more obviously and furiously, exchanging mutual accusations, criticizing each other and ignoring the water-related discussions.

Before discussing possible ways of the settlement of the water disputes, this study also reconsiders the four principal factors in order to demonstrate once again the role of these factors in promoting or impeding cooperation among the basin states. The factors are: (i) the degree to which national economies of the basin states are dependent on water supplies; (ii) the economic weight and political might of the upstream and downstream states; (iii) the nature of interstate relations in terms of their potential to intensify water disputes; and (iv) efforts and steps, which have been taken by the co-riparians in an attempt to solve the riparian clashes.

The analysis of the physical and non-physical features of the Syr Darya River basin, which was conducted in Chapter III, shows that the national economies of Uzbekistan and Kazakhstan are heavily dependent on stable and regular water supplies from upstream Kyrgyzstan. The Kyrgyz economy in turn urgently needs the energy resources of its lower riparian neighbours. Such strong and complex interdependence, however, did not result in mutual understanding and cooperation between the co-riparians. Quite the contrary, individual needs and national interests have continued to alienate the countries, prompting them to look for new trade partners. This furthered the disintegrative process in Central Asia at large and in the Syr Darya River in particular.

Such disintegrative trends became possible because in the early 1990s the newly independent states made a serious mistake that eventually affected interstate relations within the basin. This mistake lies in the fact that the co-riparians agreed to adhere to the water allocation schemes of the Soviet era but the countries neglected to take the same actions regarding other resources such as coal, gas and oil. As a result the water-rich states, Kyrgyzstan and Tajikistan, were bound by the unfavourable provisions of the 1992 Water Treaty. Uzbekistan and Kazakhstan, the main suppliers of coal, gas and oil to the upstream states, however, did not have any obstacles to develop their energy sectors and increase export prices to the market level.

Having more favourable initial conditions like rich natural resources, considerable industrial potential and better-developed infrastructure, both Uzbekistan and

Kazakhstan managed to reach higher rates of economic growth than water-rich but economically poor Kyrgyzstan or Tajikistan. Such differences in the development of the national economies led to so-called *political stratification*, when the more developed countries began to demonstrate tougher attitudes in negotiations towards the weaker states of the basin.[171]

Over a period of ten years the co-riparians of the Syr Darya River basin tried to come to a compromise on water sharing and energy transfer issues. These talks resulted in the signing of interstate treaties and the creation of different interstate institutions. Nevertheless, these treaties as well as the institutions have failed by and large to resolve discord between upstream Kyrgyzstan and downstream Uzbekistan and Kazakhstan. The flat reluctance to forgo individual interests in the name of regional cooperation, the desire for unilateral profit, and the weakness of the enforcement mechanisms of the agreements concerned were the main factors that impeded the settlement of the riparian discord within the basin.

6.2 Recommendations

As the previous chapters have demonstrated, over the last ten years the water disputes in the Syr Darya River basin assumed a complicated and protracted character. This complexity and lengthiness stems from " the very nature of water disputes," which usually implies involvement of two or more parties with their conflicting interests and needs, different approaches of the participants to water-related negotiations, and inefficiency of institutional arrangements.[172]

Acknowledging the challenges, this study makes an attempt to propose some recommendations that might be useful in the settlement of the water disputes between the upstream and downstream riparian states of the Syr Darya River basin. These recommendations are basically pertinent to the nature of the state interaction on the water issue, state behaviour in water-related negotiations and state approaches towards institutional solution of the water disputes.

The first short but important recommendation suggests the co-riparians to revise the character of their interactions on the water issue. Recent regional developments have shown that these interactions are generally permeated with political tension rather than with the spirit of cooperation and mutual understanding. This tension is contributing to the lack of agreement on many salient issues of Central Asia, including the water-related problems. Therefore, it is advisable that the political tension between the co-riparians should be settled, or at least minimized first.

One of the possible ways to lessen the tension is to put an end to the resort to political reprimands that has become a norm of behavior of the powerful

downstream states with respect to their upstream neighbors. These reproofs, often exceeding the limits of political tact and certain diplomatic ethics like in case of a public speech of the Kazakh President or hasty statements of the Prime Minister of Uzbekistan in the summer of 2001 (see page 60), do not favor a constructive dialogue. Quite the contrary, they usually create an uncompromising climate within the riparian community of the basin and provoke a splash of nationalistic sentiments and natural resistance in the neighboring upper riparian states.

The second recommendation has to do with the behaviour of the co-riparians in water-related negotiations. In water politics, negotiations are usually considered as the best recognized mechanism for resolving water disputes.[173] However, in case of the Syr Darya River basin negotiations are less helpful and often reach a deadlock due to incompatibility of positions of the co-riparians. The upstream and downstream states, therefore, are suggested to revise their behaviour in water-related negotiations and stick to certain negotiation strategies.

One of these strategies advises the contracting parties not to come to negotiations with fixed positions since they often make dialogue difficult and the establishment of cooperation impossible. Instead, the parties should be flexible and ready for constructive exchange of ideas on how to make conflicting interests and positions compatible. Although, this strategy could probably be considered as potentially time consuming and difficult, it could become one of those effective mechanisms that help to overcome the riparian discord in the Syr Darya River basin.

In addition, it might be useful if each basin state comes to the negotiation table with its concrete set of solutions on any water-related issue. Moreover, it is desirable for the co-riparians to exchange the solutions before the negotiation process. Such an exchange would probably help to avoid a situation when a delegation of a particular country refuses to discuss the proposed solutions under the pretence that it should consult with its higher authorities before making a decision.

The last recommendation relates to state approaches towards the institutional resolution of water disputes in the Syr Darya River basin. The essence of the approaches, which have been in practice since the 1990s, lies in the fact that the co-riparians have tried to manage the disputes without the direct international involvement in water-related organizations of the basin. Of course, it would be mistaken to maintain that international organizations are negligibly engaged in the water issues; different agencies of the United Nations as well as international financial institutions are quite welcomed by the co-riparians. Yet, their role is limited mainly to technical assistance in the form of consultations, recommendations and report drafting. In this regard, it inevitably comes to mind that the riparian states prefer to see international involvement at the project and/or negotiation stage but not at the institutional level.

In fact, over the last decade the riparian states of the Syr Darya River basin together with the basin states of the Amu Darya River established a number of interstate institutions to deal with the problem of water management in the region. These institutions are the Interstate Water Coordinating Commission and its executive bodies, the Secretariat, the Scientific Centre, the Syr Darya River and the Amu Darya River Basin Management Associations. In terms of structure, composition and functions, these institutions are merely regional arrangements that cover the co-riparians and do not foresee any direct international participation. As a result, the basin institutions often suffer from grave shortcomings that stem from certain difficulties, be they political such as the lack of political impartiality or economic such as financial dependency.

Perhaps, if the co-riparians become more open to international institutional involvement, they would be able to establish a truly vital and efficient model of the upstream-downstream relations in the basin. To create the model, it is suggested to the co-riparians that they establish a so-called Syr Darya River Committee in imitation of the Mekong Committee but with due regard for the political, economic and other trends of the region.

As the first step, it is advisable to formulate the status, the organization, and the composition of the Committee, which should reflect " the duality of an organization that, while answering to the member states, and must be accountable to the UN Economic Commission for Europe (UNECE) and through it, to the UN."[174]. Probably, the UN Bureau of Legal Affairs and the UNECE, involved in many projects in the post-Soviet countries, could help the riparian countries with these organizational matters.

In order to make this body the true expression of the four riparians' will it is advisable that the Syr Darya River Committee would be autonomous, free from any regional power' s guidance or influence. The Committee should beefficient and effective, capable of making and enforcing decisions and not be just another discussion group. In terms of structure, the Syr Darya River Committee could consist of the General Assembly and two subordinate organizations: the Executive Agent Bureau and the Advisory Board.

Focusing on the structure of the General Assembly, all basin states should be represented in the Assembly. It is suggested the states send their respective delegations under the guidance of authorized leaders. In terms of functions, the delegations are supposed to be engaged in supervision, coordination and control of water supplies and energy exchanges between the co-riparians. In case financial relations replace the barter settlements, the missions could focus on financial matters. These matters could include but not be limited to compensatory payments for independent purchases of natural resources, co-financing of the operation and maintenance of the interstate hydraulic infrastructure and other issues.

One of the subordinate organizations of the Syr Darya River Committee, the Executive Agent Bureau should be guided by a executive agent, who should be appointed by the UN Secretary General. The agent should serve as assistant executive secretary of UNECE and be connected to the UN, and UNECE. This connection could facilitate the resolution of any possible difficulties in the relations between the newly established organization, UNECE, and the UN. Functionally, the agent is supposed to receive general policy guidelines from the UNECE and advise the Syr Darya River Committee about administrative and technical coordination concerning water sharing and energy trade in the basin.

Another subordinate organization of the Syr Darya River Committee, the Advisory Board should include international experts from different UN organizations. Their main responsibilities could be to advise the Committee and the Executive Agent on joint projects, if any, and their repercussions for each riparian state in the short/middle/long terms. The international experts are also supposed to provide support in reports' drafting and feasibility studies' preparation.

The final important point about the Syr Darya River Committee is financial maintenance. The Committee, " in order to be able to function and to have at its disposal adequate financial and technical means,…need[s] the support of organizations such as the UN."[175] It is advisable that the Committee would have its own budget, but " its personnel should be financed by the different organizations under the UN' s umbrella to ensure its economic and political objectivity."[176]

In case the co-riparians adopt the recommendations proposed by this study, they could probably achieve a certain success in solving one of the main stumbling blocks in interstate relationships, the water issue. This is because of the following reasons. The first recommendation to change the nature of state interactions on the water issue could lessen the degree of political tension between the co-riparians and could create auspicious conditions for constructive dialogue and exchange of ideas. The next suggestion is to alter state behaviour in water-related negotiations, which would facilitate the negotiation process by making conflicting interests and positions of the basin states compatible. The final proposal would probably flavor direct international involvement in the water disputes and help the co-riparians to establish a truly vital and efficient model of upstream-downstream relations in the basin.

To sum up, the recommendations are believed to be feasible because they basically stem from the relatively successful experience of the Mekong and Nile Committees. Besides, the suggestions are worthy of attention and should be put into practice because in general terms they could contribute to agreement within the riparian community of the Syr Darya River basin. This accord would promote regional stability and ease tense political relations between the upper and lower riparian states. The regional stability and balanced interstate relations in turn

would be the main elements of the successful development of Central Asian countries.

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