**Title:**

Passing over the conflict. The Chu Talas Basin agreement as a model for Central Asia?

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**Abstract**
The international community celebrated the Chu Talas basin agreement as a major breakthrough for water management in Central Asia where, until recently, the potential for conflict over water resources was rated as very high. The agreement is presented internationally as a model for Central Asia. It is argued that the lessons learned from this case could be transferred to the larger Central Asian rivers. This chapter critically examines how this case has been positively presented and how other, possibly negative aspects have been deemphasized. Furthermore, it questions whether the knowledge gained from this basin can or even should be utilized for other Central Asian rivers.

## Introduction

Although Smith (1995: 351), focusing on water sharing, was writing in the mid 1990s that "nowhere in the world is the potential for conflict over the resources as strong as in Central Asia", a recent publication, based on a NATO-sponsored advanced research workshop (20-22 June 2006 in Almaty, Kazakhstan), is called "Transboundary water resources: a foundation for regional stability in Central Asia" (Moerlins *et al*., 2008). Hence, the impression is given that, after nearly 10 years of stagnation and conflict potential over water resources in Central Asia, a new era of cooperation has emerged. The success story promoted for Central Asian water cooperation involves the Chu and Talas basin and the 2000 agreement between the riparian states, Kazakhstan and Kyrgyzstan. Under the agreement, Kazakhstan and Kyrgyzstan agreed to share the operation and maintenance costs of the transboundary infrastructure. After the agreement was ratified by Kazakhstan in 2002, the international organizations started to support the operationalization of the agreement – the establishment of a joint commission.

Until its promotion as a success story, the Chu-Talas basin received hardly any attention in the international literature. An exception was the US Agency for International Development (USAID) report by Hutchens (1999) on cost sharing for the operation and maintenance of transboundary infrastructure in different basins in Central Asia. It was only in the early 2000s that the Chu-Talas basin appeared in the academic literature. Sievers (2002) mentions the 2000 agreement on the Chu-Talas between Kazakhstan and Kyrgyzstan, shortly after its ratification in 2002. Since then, this agreement and the Chu-Talas basin have received more attention, especially from the international community – the UN Special Program for the Economies of Central Asia (SPECA), the Organization for Security and Co-operation in Europe (OSCE), the Asian Development Bank (ADB) - which started to celebrate the agreement as a breakthrough, or ground breaking, for Central Asia. The Chu-Talas basin agreement was even internationally presented and promoted as a model for cooperation in Central Asia (UNESCO – PCCP, 2004a). With the international agencies involved, the internationally shared knowledge about the Chu-Talas basin increased (Demydenko, 2004; Krutov and Spoor, 2006;). In this literature, reference is often made to the pre-existing good relations and informal networks that led to the agreement on cost sharing. Here, it is attempted to give an historical account on water sharing in the Talas basin, on other Central Asian water agreements, and on the foci of the international community (SPECA).

The chapter is based on a literature review of conference papers together with information available on the newly established Chu-Talas web page (Transboundary Chu-Talas River project, 2007a, 2007b) and on web pages of the international community, mainly the UNESCO web page – from Potential Conflict to Co-operation Potential (PCCP) (UNESCO – PCCP, 2004b, 2004c). Fieldwork was carried out in the Talas basin in July and August 2007. Interviews were conducted with staff of the Chu-Talas Basseinovoye Vodnoye Obyedineniye (BVO: Basin Water Organization), the Dzhambul Province Public Water Management Enterprises (RGP), managers from the Kyrgyz Kirov reservoir and other local water experts in Almaty and Dzhambul Provinces.

The remainder of the chapter is structured as follows. The next section presents briefly the concept of discourse and how success stories are created. This is followed by a geographical description of the Talas basin. The fourth, fifth and sixth sections focus on the international level within Central Asia as well as the operation of the Kirov reservoir, by interpreting the data from the Pekrovka metering station during the Soviet Union era, in the 1990s, and from 2000 onwards. The seventh section summarizes and concludes.

**Controlling the discourse**

Hajer (1997) shows how policy discourses frame certain problems, distinguishing some aspects of a situation rather than others. In their research on water politics, Zeitoun and Warner (2006: 448) identify knowledge construction and sanctioning the discourse as hegemonic compliance-producing mechanisms. They argue that these two mechanisms "in the world of water conflicts may serve to veil certain aspects of riparian relations while emphasizing others". Their focus is on river basins and how riparian states claim water shares; nevertheless, they (2006: 450) identify the role of international agencies, stating: "donor and bank funding is not necessarily neutral or equitably distributed". They support their claim by quoting Waterbury (2002) who links staffing and financial contributions of states with the international interventions.

However, agency interventions have to show results. Mosse (2004: 646), evaluating critically a development project in India, argues that it is "not whether a project succeeds, but how success is produced". Rap (2006: 1301) starts his paper on the policy model of irrigation management transfer in Mexico by paraphrasing a George W. Bush statement (interview with Associated Press, 18 January 2001) stating: "to succeed, you need to demonstrate success and dissociate yourself from failure". Mosse (2004: 646) reasons that "success in development depends upon the stabilization of a particular interpretation". Hence, control over the interpretation of certain developments is important. The more often the interpretations are restated and adopted by different authoritative sources, the more stable they become.

**Geographical background of the Talas basin**

The basin commonly referred to as Chu-Talas is formed mainly on the Kyrgyz ridge. It consists of three main rivers, the Asa, the Chu and the Talas, which are formed by the confluence of many small rivers. Here the focus is on the Talas river only (Figure 1). The Talas river is formed by the confluence of the Karakol and Uchkosha rivers within Kyrgyzstan and vanishes in Moinkum sands in the territory of Kazakhstan. In total, the river is 661 km long and its watershed is 52,700 $km^2$, of which 22 percent is in Kyrgyzstan and 78 percent in Kazakhstan. The flow of the river is formed by seasonal snowmelt and partially by glaciers from the Kyrgyz mountains. Krutov and Spoor (2006: 4) state that "about 80 percent" of the flow is formed in Kyrgyzstan. The total water resource in the basin is estimated at 1.5 $km^3$.

**Figure 1:** The Talas river

Demydenko (2004: slide 33) states that "The average elevation of the river's watershed area varies from 2,500 to 2,700 m above sea level. The climate of the Talas River basin is continental with winter period precipitations varying between 400-500

mm". Krutov and Spoor (2006: 5) argue that "the considerably warm spring and summer from May to September practically do not contribute to the river flow". On the other hand, available data from the Talas metering station in Kyrgyzstan indicate that precipitation during the spring months could contribute to the river flow. See Table 1 for average temperature, and Table 2 for precipitation statistics, Talas metering station.

**Table 1:** Average temperature at Talas metering station (1999-2007)

**Table 2:** Precipitation at Talas metering station (1999-2004)

The Talas river is dominated by the Kirov reservoir, which is the only transboundary reservoir in the basin. The reservoir is situated on Kyrgyz territory, close to the border with Kazakhstan. The reservoir was commissioned in 1973, completed in 1975, and started operation in 1976. Its design capacity is 0.55 $km^3$. The main purpose of the reservoir was to control the flow of the Talas river for the irrigated agriculture areas mainly in the downstream Kazakh territory (Demydenko, 2004). Krutov and Spoor (2006: 7) explain further: "it has been used to regulate flows to the downstream areas, to provide additional water during the early and late parts of the vegetation period (April-May, August-September)". Currently, within the Talas basin, there are 114,900 hectares of irrigated land in Kyrgyzstan and 79,300 hectares in Kazakhstan. Demydenko (2004: slide 40) states: "in earlier times, the total irrigated land in the Kazakh part of the basin was almost equal to the irrigated area in the Kyrgyz part". In Kazakhstan the irrigated areas are close to the Kyrgyz border; here the width of the valley is twenty-five to thirty kilometres; after an artificial lake (approximately sixty kilometres North of Taraz city, capital of Dzhambul Province) the width of the valley reduces to only one to two kilometres (Figure 2).

**Figure 2**: Talas river, its tributaries and irrigated area

To date, no historical account has been provided on joint cooperation or the reasons which triggered the agreement. The following sections structure the events according to the decades 1980s, 1990s and 2000s.

## Water management in the 1980s

### *Water management within Central Asia*

Within the basin framework, most dams and reservoirs were built upstream in the mountains of Kyrgyzstan and Tajikistan, whereas the irrigation areas were downstream in the valleys and in the steppes. The water-management constructions were built to facilitate irrigated agriculture in the downstream regions. This reasoning is correct for the Toktogul dam located in the Syr Darya basin and for the Kirov in the Talas basin, both in upstream Kyrgyzstan, but it cannot be applied to the Nurek dam in Tajikistan (Wegerich *et al.*, 2007). In order to use the dams for agricultural purposes, water had to be released in the vegetation season to satisfy irrigation demands.

### *Water management within the Talas basin*

During the Soviet era, the Kyrgyz SSR and the Kazakh SSR signed an agreement on water sharing in the Talas basin in Moscow on January 31, 1983. Under the agreement it was decided to share the flow within the Talas basin equally – 50 percent to each republic. The 1983 protocol assumes a mean annual flow of 1616 million $m^3$ in the Talas basin. Kazakhstan's share has two components. The main component is the discharge from the Kirov reservoir of 716 million $m^3$, the remaining 92 million $m^3$ are formed within Kazakhstan's own territory. The agreement determines that Kazakhstan should receive 579.6 million $m^3$ from the Kirov reservoir (measured at the Pekrovka metering station) in the vegetation period (April to September) and in the non-vegetation period (October to March), an amount of 136.4 million $m^3$. The Pekrovka metering station is the first metering station on Kazakh territory, directly over the border with Kyrgyzstan (Figure 3). Since at the time both countries were unified within the Soviet Union, both received their funding from the Ministry of Water Resources. Kemelova and Zhalkubaev (2003: 480), writing on transboundary water issues in the Syr Darya basin, state that "the USSR budget contributed roughly US$600 million to Kyrygzstan's budget annually". Therefore, the 1983 protocol makes no reference to the operation and maintenance costs of the reservoir.

**Figure 3:** Simplified schematic of Talas river system

It is questionable how the 1983 protocol was implemented during the Soviet Union. Demydenko (2004: slide 48) shows a graph with planned and actual releases from the Kirov reservoir for the year 1986. According to him, even during the Soviet Union, Kyrgyzstan delivered less water than the requested distribution. However, it is not evident to what the term requested distribution in his presentation refers, whether it relates to the protocol or to an irrigation plan for Dzhambul Province for a particular year. In addition, one has to question whether the flow for the year 1986 is representative for the Soviet Union period after 1983.

Data provided directly by the Chu-Talas BVO (Kazakhstan) for the Pekrovka metering station show that, at least in the two years (1987 and 1988) for which figures were made available, more water reached Pekrovka during the vegetation period than the mean annual flow officially stated in the protocol (total during the vegetation period of 776.4m. $m^3$ and 876.6m. $m^3$ for 1987 and 1988, respectively). Therefore, it appears that during the time of the Soviet Union Kyrgyzstan released additional water to support irrigated agriculture in downstream Kazakhstan.

**Figure 4:** Data mentioned in Annex to the 1983 agreement and data from the Pekrovka metering station for the years 1987 and 1988 (million $m^3$)

## Water management in the 1990s

### *Water management within Central Asia*

After independence, the basin was divided between two independent countries, and therefore the basin water management framework could have been at risk. Nevertheless, shortly after independence in 1991, the governments of the newly independent Central Asian states agreed to continue with the principles of water

allocation that had prevailed in the USSR. The Almaty Agreement, signed in February 1992 by representatives of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, acknowledged joint management of water resources. "Under the agreement the states retained their Soviet-period water allocations, refrained from project infringements on other states and promised an open exchange of information" (O'Hara, quoted in Horsman, 2001: 73).

Instead of disputes arising in relation to water allocations, problems arose between the riparian states on transboundary water-provision infrastructure. Within the Amu Darya basin, transboundary water-provision infrastructures are the pump stations located in Turkmenistan and providing water to Uzbekistan, and the Tuyamuyun reservoir located in Turkmenistan and providing water to Turkmenistan and Uzbekistan. In April 1996, Uzbekistan and Turkmenistan came to a bilateral agreement. According to this agreement Uzbekistan pays to Turkmenistan US$ 11.4 million annually as land rent for the Bukhara and Kashkardarya pump stations and for the water storage area of Tuyamuyun and in addition covers all the operation and maintenance costs (which include visas for maintenance personal and transport) (Wegerich, 2006).

Within the Syr Darya basin, tension between upstream and downstream riparian states arose not in relation to water allocation, but in relation to the shift from operating the Toktogul reservoir for downstream irrigation in the summer months to winter releases in order to increase the availability of energy upstream (hydropower). The use of water for energy production did not change the regional allocation of water, only the timing of releases. In addition, Kyrgyzstan began to demand payment from the downstream riparian states (Kazakhstan and Uzbekistan) for the use of water from its reservoirs. Pressure from USAID resulted in the establishment of a barter agreement (Lange, 2001; Weinthal, 2001). On 17 March 1998, the governments of Kazakhstan, Kyrgyzstan and Uzbekistan adopted an interstate agreement on use of water and energy resources of the Syr Darya river basin.

Following this agreement, SPECA was launched in 1998. Its goal was to strengthen sub-regional cooperation in Central Asia. The Project Working Group (PWG-Energo) was established as an instrument for the implementation of SPECA. Its priority program is cooperation on "rational and efficient use of energy and water resources of the economies of Central Asia". The focus on energy and water already suggests that the main focus could be on the Syr Darya basin. It is emphasized that, even though Afghanistan is mentioned as a member of SPECA, it is not mentioned in any of the PWG-Energo meeting reports. The meeting reports show that Kyrgyzstan played a major role in this initiative. Kyrgyzstan not only hosted the meetings, but also early on in the meetings main speeches were given by high Kyrgyz politicians. From the start, the initiative has been ignored by Uzbekistan. Even during the first meeting (20-21 November 1998 in Bishkek), Uzbekistan was only represented by the plenipotentiary representative of Uzbekistan in the Executive Council of the Inter-State Council of the Economic Union of the Central Asia. At the second meeting (Bishkek: 8-9 July 1999), neither Turkmenistan nor Uzbekistan was present. As these downstream states were absent from the meeting, the agenda that was set was dictated by upstream interests:

> Rational and efficient use of energy and water resources of the economies of Central Asia can and should be assured through establishing treaty-based relations based on equitable and reasonable sharing. They should provide for mutual compensation of the participating countries for the services for regulating water regimes and for the maintenance of water management and hydro-technical constructions in the basins of the rivers Naryn – Syr Daria and Amu Daria. (Meeting report)

However, at the second meeting, it was realized that comprehensive consideration "was possible only when all countries of the region participate in the discussion and decision-making". Having set the agenda, "the session requests the Chair to duly inform Turkmenistan and Uzbekistan of the work of the PWG Energo and to make special efforts to invite the delegation of those participating SPECA countries to take part in the next session". Nevertheless, at the third session (Bishkek: 18-19 November 1999), representatives of Turkmenistan and Uzbekistan did not take part.

***Water management within the Talas basin***

According to Krutov and Spoor (2006: 8), "both countries [Kazakhstan and Kyrgyzstan], after independence, continued to recognize the [water-sharing] method and agreed to follow it". The data recorded at the Pekrovka metering station should give evidence as to whether this was the case. To date, it seems that only Hutchens (1999) provides data for the Pekrovka metering station for consecutive years during the 1990s (Table 3). He gives the Dzhambul Irrigation Department in Kazakhstan as the source of his data.

**Table 3:** Hutchens (1999) data on water flow measured at the Pekrovka metering station (million $m^3$)

According to Hutchens' data, it appears that Kyrgyzstan supplied to Kazakhstan in 1997 and in 1998 less water during the vegetation season than the amount (579.6 million $m^3$) agreed in the 1983 protocol. Hutchens' data (1999: 71) suggest that the year 1997 was a dry year, and this may have been the reason for the low water supply to Kazakhstan. However, the data for 1998 show high off-season water supply (after the irrigation period) to Kazakhstan. It is not evident whether there was high precipitation during that period, (according to Demydenko, 2004 or Krutov and Spoor, 2006, this would be unlikely) or whether the water was kept within the Kirov reservoir during the irrigation season.

As a representation of the 1990s, Demydenko (2004: slide 48) presents the actual water releases from the Kirov reservoir for the year 1994. According to his data, the releases were above the requested distribution. It would appear, therefore, that Kyrgyzstan over-fulfilled its side of the contract. Given Hutchens' data, however, it seems that the year 1994 is not representative. This is also underlined by the reasoning of Demydenko himself. He (2004: slide 40) argues that the irrigated area decreased on the Kazakh side after independence "due to the limited water availability".

As in Hutchens' study, data for the Pekrovka metering station for the 1990s were collected from the Dzhambul Irrigation Department for this present research. Only the data for the years 1992-1999 were made available and are presented in Figure 5. Even

though the data are from the same source, the Dzhambul Irrigation Department, the data do not correspond to the data presented by Hutchens. The collected data suggest that during the 1990s Kazakhstan always received more than the annual 716m $m^3$ agreed in 1983. An analysis of the breakdown between the vegetation and non-vegetation period reveals that Kazakhstan received more water during the vegetation period than agreed, but the amount only once – in 1994 – exceeded that supplied to Kazakhstan in the two years, 1987 and 1988, detailed in Figure 4. Thus the year 1994 presented by Demydenko appears to be non-representative. During 1994, a total flow of 1,257.52m $m^3$ was recorded at the Pekrovka metering station, of which 362.18m $m^3$ during the non-vegetation and 895.34m $m^3$ during the vegetation period. Because of the high flow (flood events) in 1994, one could interpret the releases during the non-vegetation period as emergency releases.

Similar to 1994, in three other years (1995, 1998, and 1999) 80 to almost 100m $m^3$ were released above the non-vegetation period limit of 136.4m $m^3$ determined in the protocol. Compared to the total flow for the year 1988 (1,041.5m $m^3$), these years do not seem to have exceptionally high flow (floods), therefore they would not justify emergency releases and the water could have been saved for the vegetation period (1995 and 1999) or for the next year (1998).

On closer inspection within one period, the data suggest that whereas during the Soviet Union the releases peaked during the month of June, in four years of the 1990s the peak of releases occurred in July. Therefore, one could assume that the changed schedule had a negative effect on irrigated agriculture. Overall, it appears that after independence the water supply from the Kirov reservoir was not as stable and advantageous for Kazakhstan as during the Soviet Union.

**Figure 5:** Water recorded at the Pekrovka metering station, 1992-1999 (million $m^3$)

The new Chu-Talas Commission, established in 2005, emphasizes the good relationship between the two countries. They present information on Kazakh and Kyrgyz exploitation costs for water facilities for the Talas river (Figure 6). A Mott Macdonald report (2005: Section 2.6.22) states that annual bilateral protocols in which "the financial participation of Kazakhstan was agreed as well as the list of specific objects and types of work to be invested. During 1998-2003, actual annual input of the Kazakh party was increased from 7 to 190 thousand USD, i.e. from 3 to 71% of total sum of actual annual operational costs". However, Hutchens (1999), who focuses on cost sharing for the operation and maintenance of transboundary infrastructure, does not mention any cost sharing for either Talas or Chu at that time.

**Figure 6**: Exploitation costs for water facilities on the Talas river

If Kazakhstan was already contributing in 1998 to transboundary infrastructure in the Talas basin, then it seems that the cost sharing did not lead to any obvious results in terms of water releases from the Kirov reservoir.

## Water management in the early 2000s

### *Water management within Central Asia*

The presence of the international community in the PWG-Energo sessions increased from session to session. At the fourth session (5-6 April 2000), representatives of OSCE, CAPC, ISAF, USAID, Agency for International Ecology Fund, TACIS, UNDP, the Swiss Coordination Office as well as the Embassy of the Russian Federation were present. Still, delegations from Turkmenistan and Uzbekistan did not attend. Only from the sixth session (22-23 June 2001) onwards did Uzbekistan send observers, and from the eleventh session (9-11 April 2003) Uzbekistan sent a delegation. At the same time, the meeting reports suggest that the speeches were less political and that the issues broadened.

Only at the ninth session (10-12 July 2002) was reference made to the Chu and Talas river basin. At this stage, it was only mentioned in an aside. "Mr. Libert also informed the participants about the course of a sub-project", the second sub-project mentioned being the "joint use of Chu and Talas river basins by Kazakhstan and Kyrgyzstan". At the tenth session (26-28 November 2002) there was again no mention of the Chu Talas basin. During the eleventh session, the first meeting of the project "Support for the creation of a commission between Kazakhstan and Kyrgyzstan on the Chu and Talas rivers" took place. Four work packages were decided upon: drafting the structure and role of commission and basin councils; preparation of terms of reference on development of documents on procedures of joint finance and use of water management structures; preparing suggestions on the basic directions of the program of public participation; and making certain documents available on the Internet (Annex 1 to meeting report of the eleventh session).

It was only between 2003 and 2004, under the EU-TACIS: ASREWAM project, that a fact-finding mission studied the Chu-Talas basin (main emphasis on the Talas basin). The international consultants participating in this missions (such as to Demydenko and Krutov) were the ones who, after the mission, increased the internationally shared knowledge about the Chu-Talas basin.

***Water management within the Talas basin***

On 21 January 2000, Kazakhstan and Kyrgyzstan signed the internationally referred to agreement on cost sharing for the transboundary water infrastructure in the Chu-Talas basin. The agreement makes no reference to the two water sharing agreements signed in Moscow in 1983, but water sharing is vaguely addressed in the first Article: "The Parties agree that use of water resources, operation and maintenance of the water facilities for interstate use shall be allocated to the mutual benefit of the Parties on a fair and reasonable basis". In addition, the 2000 agreement makes no reference to any earlier annual bilateral protocols. The agreement states: "The Party-owner of the water facility for interstate use is entitled to receive compensation from the Party-user of the facility for the costs needed to provide safe and reliable operation" (Article 3) and "The Parties shall take shared part in the recovery of costs associated with the operation and maintenance of the facilities for interstate use and other agreed initiatives in proportion to the water received" (Article 4).

What are the consequences of the agreement? According to the data from the Chu-Talas Commission (Figure 6), Kazakhstan's contribution to the transboundary infrastructure costs has increased significantly since 2000. Nevertheless, the data from

the Pekrovka metering station for the years 2000 to 2006 show that the agreement did not lead to real changes compared to the 1990s (Figure 7).

**Figure 7**: Water recorded at the Pekrovka metering station in the early 2000s (million $m^3$)

One could question why the agreement was ratified by Kazakhstan in 2002. Either the non-release of additional water during the non-vegetation period in 2001 or the high water releases during the vegetation period (972.36 million $m^3$ recorded at Pekrovka) in 2002 may have trigged the final ratification. In any case, the ratification of the agreement did not lead to changes either.

Whereas Demydenko (2004: slide 52) focuses on more technical issues for implementation: "problems arise in transparency, technical capability and methodological approaches used to determine water availability and therefore apportionment on an annual basis", Valentini *et al*. (2004: 57), referring to the ratified interstate agreement, hint that there are not only technical issues: "when the document took effect and some experience was gained in its implementation, the parties considered it useful to create an intergovernmental commission for the rapid accomplishment of practical tasks".

Even after the Chu-Talas Commission was established (on 26 July 2005), there were high off-season water releases at the Kirov reservoir (in November 2005). These high off-season water releases may have caused water shortages and even non-compliance with the agreed amount to be supplied to Kazakhstan in 2006 according to the 1981 protocol.

**Conclusion**

The data presented here show that, with the exception of 2006, after independence Kyrgyzstan always fulfilled or even over-fulfilled its water supply obligations to Kazakhstan as determined in the 1983 agreement. However, Kyrgyzstan changed the operation of the Kirov reservoir. Water releases during the non-vegetation period became regular. Therefore Kyrgyzstan reduced the amount of water available for downstream agriculture in Kazakhstan during the vegetation period. In addition, instead of peak releases during the month of June as practiced during the Soviet Union, the peak releases varied after independence, therefore putting additional pressure on agriculture downstream in Kazakhstan.

A plausible reason for the change of operation could be that Kyrgyzstan utilized its strategic position – upstream and with the necessary water-control infrastructure – as a bargaining tool to press Kazakhstan to share the operation and maintenance costs of the Kirov dam. This tactic was also utilized for the Toktogul reservoir in the Syr Darya basin. However, whereas Toktogul reservoir is used for hydropower production, the Kirov reservoir is not. In addition, even after Kazakhstan started paying in the late 1990s, the operation as it existed during the Soviet period was not reinstated. Neither did the agreement on sharing operation and maintenance costs signed in 2000, nor its ratification in 2002, lead to a change of operation. Therefore, it is too early to celebrate this agreement. Even the establishment of the joint

commission did not lead to changes. Hence, the real success is not in basin cooperation, but rather in upstream hegemony.

Overall, the SPECA PWG-Energo meeting reports suggest that the involvement of the international community in the Chu-Talas basin was initially not anticipated. The focus of the group was clearly on the Syr Darya basin and maybe on the Amu Darya basin, not on the smaller Central Asian rivers. The focus was on energy and water resources, therefore suggesting that the focus was on reservoirs used for hydropower production, but this is not the case with the Kirov reservoir. It appears that the SPECA PWG initiative was unsuccessful considering its focus. However, it created a necessary mass of attention within the international community – a mass that could promote the Chu-Talas sub-project, with its call to create a basin commission, as a success story. The retelling of the success story, with the focus on the future and not on the past events, which have triggered the agreement, promoted the perception of good relations between Kazakhstan and Kyrgyzstan. It also highlighted the need for the international community to be involved in interstate cooperation. In addition, the SPECA PWG-Energo with its meetings in Bishkek gave Kyrgyzstan the possibility to influence the discourse on water sharing arrangements in its own favour. Finally, the presented data suggests, that real success stories, like the Uzbek-Turkmen agreement of 1996 stay unnoticed, if the international community is not involved.

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Figure 1: The Talas river


Source: UNESCO – PCCP (2004b); Demydenko (2004)

Table 1: Average temperature at Talas metering station (1999-2007)

| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|
| January | -6.1 | -1.2 | -6.6 | -2.5 | -2.2 | -2.3 | -4.5 | -7.2 | -2.6 |
| February | -3.0 | -2.1 | -2.2 | -1.5 | -1.6 | 0.7 | -5.9 | 1.7 | 0.4 |
| March | -3.5 | 3.3 | 5.4 | 5.4 | 2.1 | 1.5 | 7.1 | 6.5 | 3.0 |
| April | 9.2 | 12.7 | 10.6 | 8.4 | 6.7 | 6.1 | 10.7 | 11.6 | 13.2 |
| May | 16.0 | 16.3 | 17.9 | 13.5 | 13.1 | 11.9 | 14.2 | 16.1 | 15.6 |
| June | 17.3 | 19.6 | 22.0 | 18.5 | 18.7 | 17.9 | 20.5 | 19.3 | 20.5 |
| July | 19.4 | 21.7 | 20.6 | 20.9 | 20.8 | 20.4 | 22.2 | 19.9 | 21.3 |
| August | 21.4 | 21.0 | 19.8 | 21.5 | 20.4 | 19.3 | 18.5 | 20.2 | 20.0 |
| September | 15.9 | 15.4 | 14.1 | 15.9 | 15.7 | 15.3 | 16.8 | 14.6 | 16.0 |
| October | 11.1 | 6.0 | 7.6 | 11.5 | 10.0 | 8.2 | 10.6 | 11.7 | 7.3 |
| November | 2.4 | 0.5 | 4.3 | 4.3 | 2.4 | 5.9 | 3.4 | 3.7 | 5.3 |
| December | 0.7 | -0.7 | -3.7 | -6.4 | -1.8 | -2.0 | -1.3 | -3.4 | -5.3 |

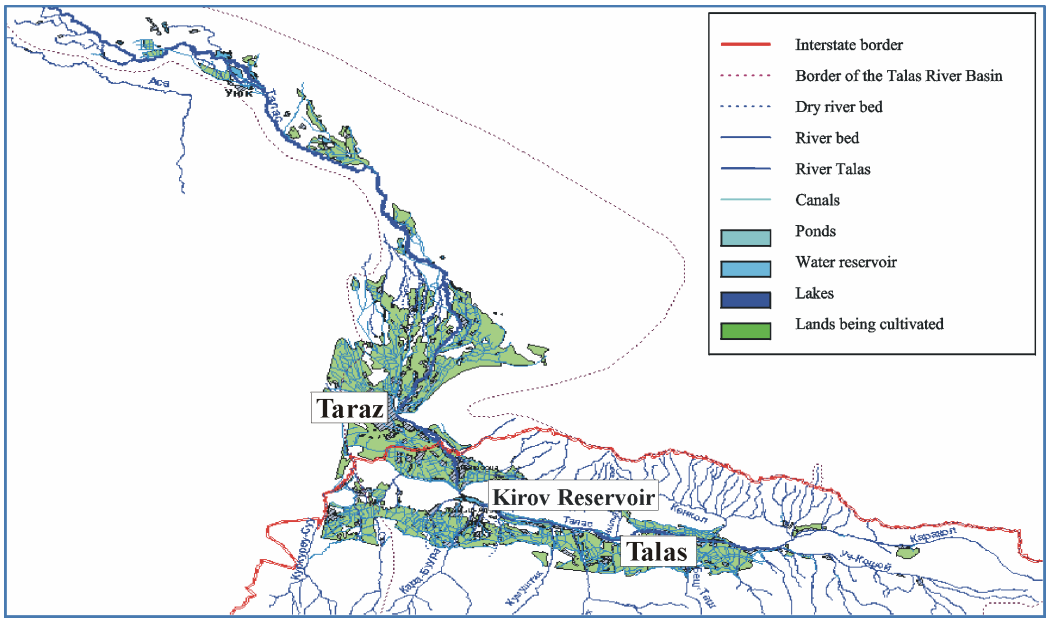
Source: http://meteo.infospace.ru

Table 2: Precipitation at Talas metering station (1999-2004)

| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|
| January | | | 39.6 | 46.0 | 40.9 | 27.2 |
| February | | | 48.0 | 56.4 | 53.3 | 11.2 |
| March | | 7.1 | 43.2 | 67.4 | 80.5 | 57.0 |
| April | | 41.8 | 58.8 | 121.7 | 84.6 | 38.5 |
| May | | 37.7 | 42.4 | 113.4 | 86.3 | 35.1 |
| June | | 26.3 | 21.0 | 62.3 | 79.4 | 5.3 |
| July | | 9.9 | 54.1 | 46.4 | 58.3 | |
| August | | 1.5 | 55.3 | 24.1 | 44.5 | |
| September | | 2.7 | 23.3 | 14.3 | 26.3 | |
| October | | 57.1 | 112.3 | 34.8 | 48.3 | |
| November | | 40.7 | 39.7 | 23.6 | 67.6 | |
| December | | 18.3 | 47.9 | 73.9 | 21.3 | |
| Total | | 243.1 | 585.6 | 684.3 | 691.3 | 174.3 |

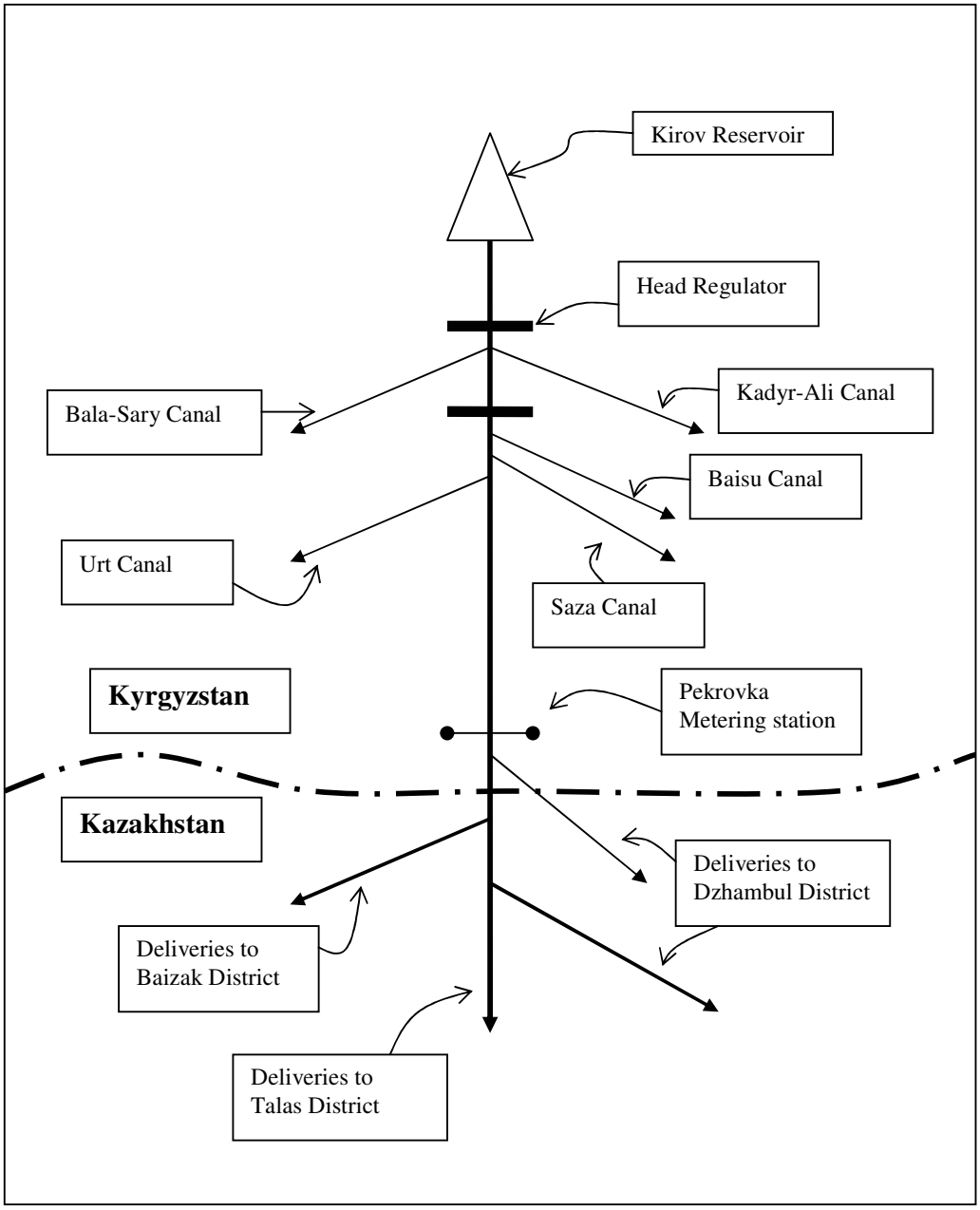
Source: http://meteo.infospace.ru

Figure 2: Talas river, its tributaries and irrigated area




Source: adapted from Demydenko (2004)

Figure 3: Simplified schematic of Talas river system




Source: adapted from Hutchens (1999)

Figure 4: Data mentioned in Annex to the 1983 agreement and data from the Pekrovka metering station for the years 1987 and 1988 (million $m^3$)

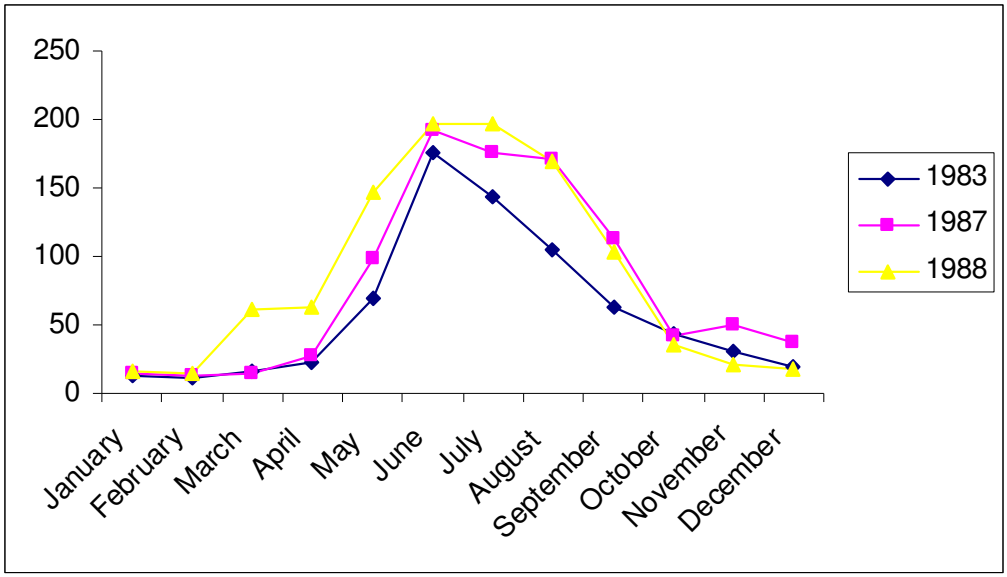


Table 3: Hutchens (1999) data on water flow measured at the Pekrovka metering station (million $m^3$)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | non-veg | veg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1995 | 11.3 | 68.2 | 95.0 | 58.8 | 131.8 | 108.3 | 133.2 | 112.9 | 52.9 | 20.8 | 20.5 | 14.7 | 230.5 | 597.9 |
| 1996 | 10.4 | 8.1 | 7.3 | 22.9 | 111.3 | 132.7 | 138.5 | 117.9 | 55.7 | 17.3 | 11.3 | 7.5 | 62.0 | 579.0 |
| 1997 | 7.3 | 5.8 | 6.6 | 18.3 | 116.6 | 118.5 | 126.9 | 86.3 | 25.9 | 15.2 | 10.2 | 5.9 | 45.8 | 492.5 |
| 1998 | 4.9 | 5.5 | 5.1 | 18.6 | 88.0 | 103.1 | 125.2 | 111.1 | 89.1 | 116.2 | 55.6 | No data | 187.3 | 535.1 |

Source: adapted from Hutchens (1999: 71)

Figure 5: Water recorded at the Pekrovka metering station, 1992-1999 (million $m^3$)

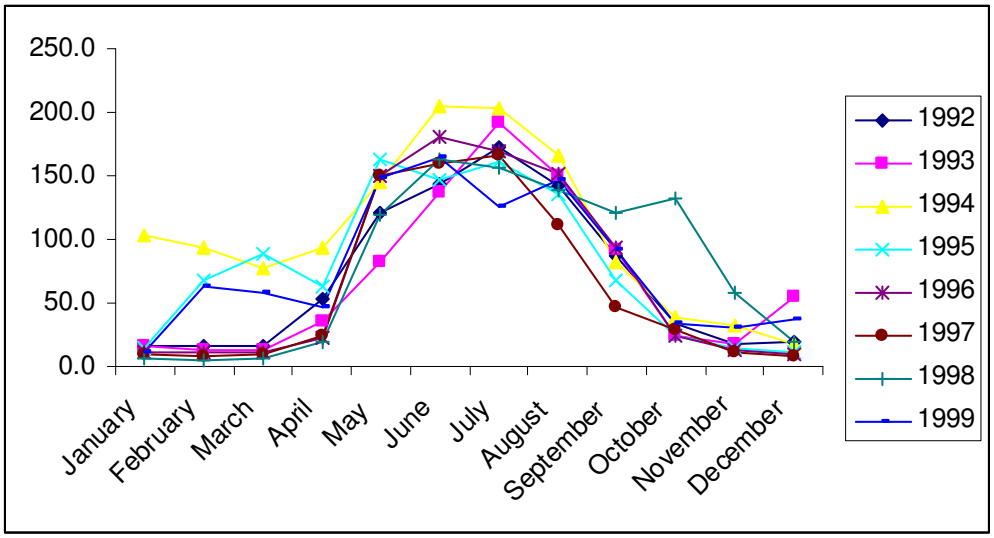
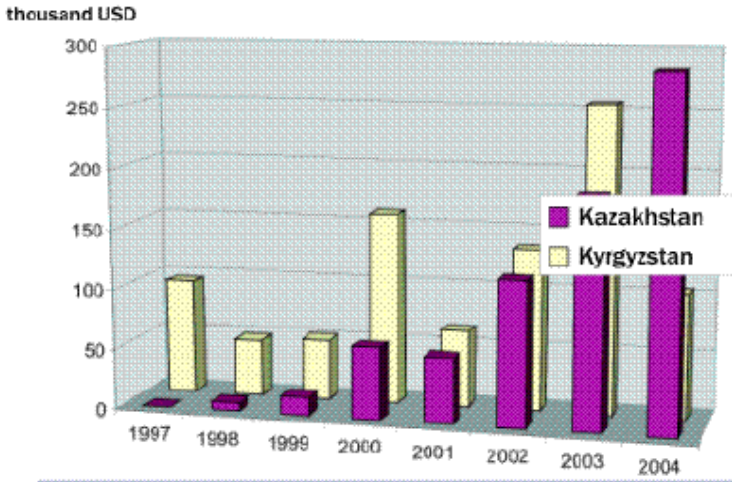


Figure: 6 Exploitation costs for water facilities on the Talas river




Source: Transboundary Chu-Talas River project (2007b)

Figure 7: Water recorded at the Pekrovka metering station in the early 2000s (million $m^3$)