Third party involvement in fostering transboundary cooperation in Central Asia

Photo of the Rogun Dam site by Richard.Fuggle

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Summer 2015

Global Water Partnership

Linnegatan 87D, Stockholm

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Abbreviations

BVO	River Basin Management Organization
CAPS	Central Asian Power System
ESIA	Environmental and Social Impact Assessment
GDP	Gross Domestic Product
HPP	Hydropower Plant
ICWC	Interstate Commission on Water Coordination
IFAS	International Fund for the Aral Sea
MCE	Maximum Credible Earthquake
PMF	Possible Maximum Flood
TJ	Terajoule
USSR	Union of Soviet Socialist Republics

1. Background

This case study describes the World Bank feasibility report on the Rogun Dam and its impact on the cooperation over transboundary water resources between Uzbekistan and Tajikistan. Although there are more riparian countries that are highly interdependent on each other with regard to water and energy resources, the relationship between Uzbekistan and Tajikistan seems to be most affected by the plans for resuming the construction of the Rogun Dam. Therefore, this case study seeks to examine the impact of the World Bank feasibility studies on explicitly these two countries. Both countries are located in Central Asia. Uzbekistan is a landlocked country with a population of 30.74 million people (World Bank 2014a). It has a GDP of $ 60.6 billion and is with that categorized by the World Bank as a lower middle income country (World Bank 2014a). The country has enormous gas resources which are easily extracted. In 2012 Uzbekistan produced 2.4 million TJ (International Energy Agency 2012a). With that amount of produced gas, it is the fourteenth biggest gas producing country in the world (CIA 2014).

Tajikistan is also a landlocked country in Central Asia and has borders with Uzbekistan. The country has a population of 8.409 million and a GDP of $ 9.242 billion (World Bank 2014b). Tajikistan is, like Uzbekistan, categorized as a lower middle income country by the World Bank, but it has the lowest income in Central Asia and is heavily dependent on remittances (World Bank 2014b; World Bank 2014f). Unlike Uzbekistan, Tajikistan has few natural gas resources and only produced 422 TJ in 2012 (International Energy Agency 2012b). The country has an electricity shortage of approximately 5 billion kWh per year (GWP 2013). At the same time, Tajikistan has considerable reserves of water resources consisting of glaciers, rivers, lakes and underground waters. Therefore, the country relies mainly on hydropower. Tajikistan currently has six hydro power plants (HPP) and approximately 98 percent of the country´s energy balance is produced by HPPs (GWP 2013; Melnikovova, Havrland, Valencik 2014).

Map of Central Asia

1.1 Water allocation management in the Soviet period

During Soviet times, the Soviet government decided to turn Central Asia into the cotton producing center of the Soviet Union, which was supposed to provide enough cotton for all of the Soviet Union. Under Stalin, the cotton sector grew increasingly for that specific purpose (Deniz Kandiyoti ed. 2007). In order to increase the cotton production, large quantities of water were needed. Therefore, the Soviet government initiated the building of large irrigation systems (Bichsel 2011). Energy-poor upstream Kyrgyzstan and Tajikistan were supposed to release enough water for the cotton-producing and energy-rich downstream countries. In return, the energy-rich downstream countries provided the upstream countries with enough energy supplies (Zakhirova 2013). The Central Asian countries cooperated and complemented each other in the supply of natural resources.

The energy supply among the Central Asian republics was regulated through the Central Asian Power System (CAPS), which was developed by the Soviet government (World Bank 2014d). The Central Asian water resources were managed by the USSR Ministry of Water Management and Land Reclamation (Minvodkhoz) and by the USSR State Planning Committee (Gosplan). These two

state organs consulted with the Central Asian republics in order to establish plans for the water resources allocation management (Weinthal 2002). From 1986 the water resources allocation management became more decentralized when the Soviet government created the basin water management organizations (BVOs). The BVOs became responsible for managing the allocation of water resources in the Soviet Union on regional scale. In Central Asia, there were two BVOs established; one for the management of water of the Syr Darya and one for the management of the Amu Darya River. The USSR Minvodkhoz set water quotas which were executed by the BVOs twice a year – for summer and winter seasons. Both the republics and Minvodkhoz had to approve these water delivery schedules before they were implemented (Libert, Orolbaev and Steklov 2008). This meant that from 1986, the management of water allocation was already decentralized to the BVO level. However, the Soviet republics of Central Asia were still not independently in charge of the allocation of their water and energy resources (Libert, Orolbaev and Steklov 2008). For that reason they did not gain any sufficient experience and proper economic interest in the management of water during the Soviet period.

1.2 Water allocation management after the collapse of the Soviet Union

When the Soviet Union collapsed in 1991, five newly independent states emerged in Central Asia, namely Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Their independence implied that they themselves became responsible for the allocation of natural resources without having sufficient previous experience. The rivers that were first of domestic concern during Soviet times became of international concern (Karaev 2005). The break-up of the Soviet Union and the drawing of new borders resulted in Kyrgyzstan and Tajikistan lacking energy supply. For the downstream energy-rich countries it became apparent that the rivers did not originate in their land (Weinthal 2006).

The countries saw the need to work together and made several attempts to foster cooperation over water resources in the region. They agreed upon maintaining the Soviet system of allocation of water resources in 1992, with the signing of the "Almaty Agreement". This agreement included arrangements on the quantity of water that would be released by the upstream states (Weinthal 2006). With the signing of the Almaty Agreement, the Interstate Commission on Water Coordination (ICWC) was created. This was an institutional body which was to govern the interstate allocation of the water resources. In 1995, The Nukus Declaration was adopted by the heads of the Central Asian states. In this declaration the Central Asian states declared that the earlier signed agreements on water allocation are to remain in place (World Bank 2014d). Currently the Central Asian states agree on the distribution of their water resources on a semi-annual basis within the ICWC framework (World Bank 2014d). The ICWC is responsible for monitoring whether these allocation agreements are followed up. Although on paper these

allocation agreements are signed, the ICWC has in practice not much influence in the monitoring of allocation agreements (Melnikovova, Havrland and Valencik 2014). The creation of the ICWC also created the basis for foreign aid. The International Fund for saving the Aral Sea (IFAS) was established in 1993, it is an interstate organization that works for transboundary cooperation of water resources and ecosystems in Central Asia. IFAS receives funds from Central Asian countries and from abroad (EC IFAS 2011).

The Central Asian countries decided in the Almaty Agreement to maintain the Soviet agreements on water and energy resources. In the case of Tajikistan and Uzbekistan, Tajikistan was the country providing Uzbekistan with water and in return, Uzbekistan would provide Tajikistan with energy resources. However, the confirmed quotas in the Almaty Agreement were not reflecting the situation at the time. The countries discovered that they had conflicting needs concerning the allocation of water. Uzbekistan is economically dependent on its irrigated agriculture. Cotton is one of its key export commodities (Melnikovova, Havrland and Valencik 2014; World Bank 2014c). In order to irrigate its land, Uzbekistan needs large quantities of water. The water for these irrigation purposes originate from three main sources, namely the Amu Darya, Syr Darya and Zarafshan rivers (Stein 2011). The Amu Darya, which originates in Tajikistan, Kyrgyzstan and Afghanistan, irrigates the southern and western parts of Uzbekistan (Stein 2011). Tajikistan needs water in order to generate hydropower. As it is the country with the lowest income in Central Asia and since the gas prices increased after the fall of the Soviet Union, Tajikistan made becoming self-sufficient in energy a priority (Abdolvand et al. 2015).

2. Challenges

In order for Tajikistan to generate more revenues and to become independent of Uzbekistan and Turkmenistan in its energy supplies, the Tajik government decided to resume the construction of the Rogun Dam, a HPP located on the Vakhsh river basin, which is a major tributary of the Amu Darya River. It contributes 29 percent to the Amu Darya flows (World Bank 2014d). The plans for the construction of the HPP had been made in 1959 already as part of the Vakhsh River cascade and were carried out in 1976. But when the Soviet Union collapsed, the construction of the HPP was halted due to the breakout of the Tajik Civil War (1992-1997) (Havenith et al. 2011; Melnikovova, Havrland, Valencik 2014). In the 2000s Tajikistan made the construction of the Rogun Dam a priority again. After Tajikistan suffered from harsh winters with electricity shortages in 2008-2009 and 2011-2012, the construction of the dam had become an even higher priority for the Tajik government (Central Asian Standard 2013).

As soon as Tajikistan announced its desire to resume the construction of the Rogun Dam, Uzbekistan expressed its concerns. Uzbekistan uses up to 90 percent of its quota which is released by the upstream countries for irrigation purposes (International Crisis Group 2014). When

Tajikistan starts to use the Rogun Dam for the generation of electricity, Uzbekistan is concerned to receive less water for its irrigation purposes (World Bank 2014e; EU 2014). Uzbekistan also raised concerns about the possibility of an earthquake, since the Rogun Dam will be located in a seismically active zone in Tajikistan (World Bank 2014e; EU 2014; Havenith et al. 2011).

Although Uzbekistan was among the countries that formally requested the World Bank to carry out feasibility studies on the Rogun Dam, the Uzbek government tried to prevent Tajikistan from completing the construction of the dam. Therefore the Uzbek government took several measures in order to influence the decision of the Tajik government (World Bank 2014d). One of these measures was the closing of the borders between Tajikistan and Uzbekistan (Majidov 2012; EU 2014). Uzbekistan also halted gas supplies to Tajikistan several times, which caused more energy scarcity in Tajikistan. This energy scarcity gave Tajikistan more incentives to be independent in its energy supply from Uzbekistan (Majidov 2012; Trilling 2014; EU 2014). In 2012, president Islam Karimov of Uzbekistan even referred to the option of war if Tajikistan would proceed with its efforts to resume the construction of the Rogun Dam (Majidov 2012; Trilling 2014).

3. Decisions and Actions taken

In 2007, Tajikistan formally requested the World Bank to assess the feasibility of the construction of the Rogun Dam (World Bank 2014d). The World Bank agreed and undertook feasibility studies by examining the risks and benefits of constructing the dam. The construction of the Rogun Dam was not allowed to be resumed before the World Bank finishes the feasibility studies. However, the assessment studies only serve as an input to the decision making process (Melnikovova, Havrland and Valencik 2014; World Bank 2014d). The study conducted by the third party was considered as a neutral way to mitigate the conflict. It consisted of five riparian consultations and two main studies.

In June 2014, the World Bank gave a positive opinion about the construction of the Rogun Dam in Tajikistan with the publishing of the feasibility assessment. The feasibility report consisted of two main studies, the Techno-Economic Assessment Study (TEAS) and the Environmental and Social Impact Assessment (ESIA) (World Bank 2014d).

The first step of the assessment of the feasibility of the project was the organization of consultation meetings with the six riparian states, which included Afghanistan, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. Since 2011, five consultation meetings have been held with the riparian states and several civil society organizations from the riparian states (World Bank 2014e). During these sessions it became clear that the Uzbek authorities would not support the construction of the Rogun Dam. Stakeholders from Uzbekistan

mainly questioned the risk of earthquakes, the risk of floods and the quantity of water that it would receive once the dam would be completed (World Bank 2014e; World Bank 2014d).

In order to make the assessment as transparent as possible, the World Bank involved several parties in the study. Independent consultants were appointed to carry out the study. The World Bank itself also played a substantial role by monitoring and supervising the study and its process. The bank also developed additional studies which were needed for the main studies. Two International Panels of Experts were created, which were recruited by the World Bank. These panels were appointed to review the assessment studies in order to ensure adherence to international standards. Finally, the World Bank facilitated and structured the above mentioned riparian meetings (World Bank 2014d).

The final decision on whether the construction of the Rogun Dam was feasible was made with the help of the TEAS and ESIA, as earlier mentioned. Three different heights, 335, 300 and 265 meters, were assessed. A HPP with a height of 335 meters was considered the most economical (World Bank 2014; EU 2014). The main goals of the TEAS were to examine basic geological and hydrological data, engineering and design issues, construction costs and schedule and economic and financial feasibility of the construction of the Rogun Dam (World Bank 2014d). The TEAS study concluded that the safety of the dam would be secured at the site of the Rogun Dam, if some technical adjustments would be made to the design. The dam would be able to withstand the Maximum Credible Earthquake (MCE) (World Bank 2014d). The construction of the dam would also be beneficial for the rest of the Vakhsh Cascade, because at the moment of release of the World Bank report, the other projects were not able to withstand the Probable Maximum Flood (PMF) (World Bank 2014d). It was concluded that the Rogun Dam would provide Tajikistan enough electricity during the winters to be self-sufficient. The construction of the Rogun Dam would be economically more beneficial than non-Rogun options (World Bank 2014d). Hence, according to the TEAS, the construction of the dam was considered feasible.

The main goals of the ESIA were to examine what impact the construction of the Rogun Dam would have on the environment and on society. The study concluded that there are two main issues that need to be mitigated in the process. The first is the issue of resettlement. Many people need to be resettled in Tajikistan in order to realize the construction of the HPP. The report recommends that extra attention should be paid to this issue in order to proceed in a way that suits the international standards (World Bank 2014d). The report also states that the construction of the Rogun Dam can, in the worst case, have a negative impact concerning the quantity of water that would be released to the downstream countries, which includes Uzbekistan. Tajikistan is willing to mitigate these negative impacts by releasing more water than before (World Bank 2014d; EU 2014). Tajikistan was up until the moment that the World Bank published the report in 2014 not

releasing as much water as agreed in the Almaty Agreement, which means that it was not using its BVO quota. Tajikistan promised to release water to its full potential in the future (World Bank 2014d). This means that the construction of the Rogun Dam will affect the downstream countries, including Uzbekistan, minimally if Tajikistan keeps its promise. However, as the ESIA report states, the downstream countries cannot be guaranteed of this. The report therefore recommends to establish a guarantee for the downstream countries to ensure that enough water is released (World Bank 2014d).

The ESIA states that the flow does not have to be affected by the construction of the dam. But this would only be the case if the Rogun Dam releases 4.2 billion cubic meters from summer to winter and if the Nurek Dam, which is also located on the Vakhsh river and which is currently the largest dam in the world, will work at its full potential (World Bank 2014d). The ESIA even stated that if the Rogun is not limited to 4.2 billion cubic meters from summer to winter release, it could benefit both Tajikistan and the downstream countries. The additional storage that the Rogun Dam has combined with the storage of Nurek could be used to release more water during dry years (World Bank 2014d). To conclude, considering the quantity of water and the environment, the negative impact on Uzbekistan would be zero due to maintenance of present cascade outflows according to the ESIA report. The Rogun HPP could even have a positive contribution if the countries agree to a joint operation of the Rogun cascade.

The feasibility studies were carried out in a transparent way. The World Bank only invited independent parties to be involved in the study. There was no involvement of any political parties. The World Bank took its role as a third, neutral party seriously.

4. Outcomes

Despite the fact that the feasibility report was published, it did not change the situation between Tajikistan and Uzbekistan significantly. In July 2015, the Uzbek government announced that it will not support the construction of the Rogun Dam under no circumstances (Eurasianet 2015). The feasibility report of the World Bank did not contribute to a better cooperation over water resources between the two countries. It is remained to be seen whether the cooperation will improve in the future.

5. Conclusion

Both Tajikistan and Uzbekistan went through enormous changes over time. Whereas in the days of the Soviet Union the allocation of natural resources was arranged centrally, the governments had to arrange it themselves when they became independent states. They lost the hegemon who was in charge over the water allocation. A strategy needs to be developed in order to satisfy both countries´ needs for water.

One can conclude that the lack of cooperation over water resources between Uzbekistan and Tajikistan is mainly caused by diverging interests over the distribution of water resources. International or third party involvement can foster cooperation when two parties are having conflicting interests. A comprehensive and transparent feasibility assessment might help to solve disagreements between two parties over transboundary water resources. However, this case study showed that the involvement of a neutral third party does not guarantee successful conflict resolution. Facilitating the availability of independency is a necessary, but not a sufficient step towards conflict resolution.

6. Lessons learnt

- Neutral third party involvement is not necessarily a guarantee for improvement of transboundary cooperation over water.
- Facilitating a dialogue between different stakeholders is important in order to foster cooperation. Dialogue refers to a discussion with the purpose of enhancing mutual understanding. The World Bank facilitated meetings in order to enhance the mutual understanding between all six riparian states. However, Uzbekistan chose to not fully participate in these meetings.
- A broad strategy needs to be developed in order to satisfy both countries´ needs for water. This means that dialogue needs to be stimulated between the countries in order to obtain a shared strategy. With the aid of a strategy, the countries are more likely to cooperate over their shared water resources. Although this is about the animosity between two countries, a joint strategy of shared resources is needed for all riparian states in order to mitigate future conflicts that could happen at any stretch of the basin.
- The TEAS and ESIA reports which were presented by the World Bank are a good attempt to provide a neutral way to assess the feasibility of the possible construction of the Rogun Dam and its impact on other Vakhsh cascade projects. However, political and cultural factors play a significant role in conflicts. These factors should also be considered by the third party.
- Intervention tools of conflict resolution, like facilitation, fact-finding and dispute review boards and panels need to be established in order to attempt to mitigate a conflict over water resources.

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This study was developed for the GWP Toolbox to contribute to the tool regarding conflict management (C5.01). The case study does not represent the opinions of the Global Water Partnership.

I want to thank Dr. Torkil Jønch Clausen for his valuable contribution to this case study.