

International Cooperation of Turkmenistan in the Water Sector

Jon Marco Church

Abstract The aim of this chapter is to provide an overview of cooperation of Turkmenistan with neighboring countries, donor countries, as well as international organizations, including financial institutions. Its core is an analysis of the major drivers of cooperation and an overview about the different types of interactions and relations between Turkmenistan and its international partners. This is not an attempt to evaluate the quality or quantity of Turkmen initiatives or actions and no recommendation was produced. This is an effort to systematize information that is available to the public and to reflect on the experience of the author working in the country and region on water issues.

Keywords Bilateral, International, Multilateral, Turkmenistan, Water

Contents

1	Introduction	292
2	Transboundary Waters	293
3	Historical Perspective	295
4	Main Issues	298
5	Formal and Informal Interactions	301
6	Bilateral and Multilateral Relations	302
	6.1 Bilateral Relations	302
	6.2 Multilateral Relations	304
	References	309

J.M. Church (✉)
University of Reims, International Research Center on Sustainability, 57 bis rue Pierre Taittinger,
51096 Reims Cedex, France
e-mail: jon-marco.church@univ-reims.fr

1 Introduction

“Putting forward new proposals and initiatives on environmental issues, Turkmenistan stands ready for intensifying and promoting positive cooperation on global scale.” These were the words that closed President Berdimuhamedov’s message to the participants in the conference “Environmental Cooperation of Turkmenistan with Major International Organizations: Achievements and Success,” held in Ashgabat on November 21–22, 2011. One of the objectives of that conference was to discuss the proposal to establish a Caspian Environment Council and to create a Regional Center for Climate Change in Ashgabat. I do not know how far these initiatives went, but what I know for sure is that the meeting promoted positive cooperation for this book, particularly for this chapter. My presentation at the conference focused more on cooperation between the United Nations Economic Commission for Europe (UNECE) and Turkmenistan in the water sector. This contribution will however go beyond this, starting from a short description of the situation in the four major transboundary water bodies, followed by a brief historical perusal of the last twenty years.

The aim of this chapter is to provide an overview of cooperation of Turkmenistan with neighboring countries, donor countries, as well as international organizations, including financial institutions. Its core will therefore be an analysis of the major drivers of cooperation, what Peter Haas called “influencing factors” [1], together with an overview about the different types of interactions and relations between Turkmenistan and its international partners. It goes without saying that this is not an attempt to evaluate the quality or quantity of Turkmen initiatives or actions and that no recommendation will be produced. This is an effort to systematize information that is available to the public. Moreover, this has nothing to do with the chapter dedicated to international cooperation in the Environmental Performance Review of Turkmenistan and its final recommendations that have recently been adopted by the UNECE Committee on Environmental Policy [2].

Few scientific papers have been published specifically on this topic in English [3–6], which is one of the reasons that persuaded me to accept the invitation of the editors of this book. So far, most scholarly research and development cooperation has focused on the regional scale, especially on the Aral Sea [7–10]. This is due to the relative difficulty in obtaining firsthand information about the situation in the country, particularly about strategic issues such as this. The general feeling is however that the situation is improving and this text is a demonstration thereof. The sources used for this analysis are, first of all, official documents and publications by the Turkmen government [11–14] and by international organizations [15–21], some of which are available online. Their interpretation relies heavily on the author’s familiarity with the issue and the country, having specialized in regional environmental cooperation and having served the UN in Turkmenistan.

2 Transboundary Waters

As it can be observed from the map below, there are four transboundary water bodies in Turkmenistan, shared with a total of eight countries, based on hydrological boundaries:

1. Amu Darya–Sarygamysh Lake–Aral Sea basin (Afghanistan–Tajikistan–Uzbekistan–Kyrgyzstan–Kazakhstan)
2. Murgab river basin (Afghanistan)
3. Tejen river basin (Afghanistan–Iran)
4. Atrek–Caspian Sea basin (Azerbaijan–Iran–Kazakhstan–Russia)



Source: UNECE (2011) Second assessment of transboundary rivers, lakes and groundwaters

The Aral Sea basin is the largest catchment area in Central Asia and one of the largest closed water systems in the world [7–9]. Its main effluents are on one hand the Amu Darya, which is the most important river in Central Asia and flows from Afghanistan and Tajikistan to Turkmenistan and Uzbekistan, and on the other hand the Syr Darya, which flows from Kyrgyzstan to Uzbekistan, Tajikistan, and

Kazakhstan. With regard to the Amu Darya, a small but significant amount of water originates from Afghan territory, but its exploitation is currently very low because of the war and of the socioeconomic situation in the country. Most of the water is generated instead on Tajik territory, but the country uses only a small proportion of it. Hoping to achieve energy and food security, Tajikistan, which is the poorest among former Soviet republics and has recently experienced a civil war, is investing heavily in the development of hydropower production and of irrigated land. This worries Uzbekistan, which apparently fears at the same time water scarcity and flooding due to dam failure. This could have negative effects on its cotton fields and industry, which is particularly demanding of water. In Turkmenistan, the Karakum canal brings water from the Amu Darya all the way to Ashgabat and beyond; the Altyn Asyr lake is being filled by drainage waters through the main drainage canal of the Golden Age that runs across the country from Turkmenabat and through the Karakum desert; water is also brought to the depression in the northwestern part of the country, significantly extending the river basin.

In general, all downstream countries are greatly concerned by the overexploitation of water resources, which is causing the disappearance of the Aral Sea and which is having serious consequences for the livelihoods of millions of Kazakhs and Uzbeks. As the UN Secretary General put it after visiting the area in 2010: “During my flight over the Aral Sea, from Uzbekistan, I was particularly shocked by what I saw. A sea that was once the fourth largest inland bodies of water in the world has shrunk by nearly 90 percent [. . .]. Clearly, this is a collective problem requiring collective effort – not just from regional leaders, but the entire international community.”¹ All countries understand that international cooperation is needed to support efforts at the global, regional, national, and local scale to mitigate the causes and to adapt to the consequences of the so-called “tragedy” of the Aral Sea. It must be noted, however, that the Aral Sea is not the only transboundary lake in the area. There is also the large and shallow Sarygamysh Lake, which finds itself in a depression between Turkmenistan and Uzbekistan and which consists mainly of agriculture drainage waters originating from the Amu Darya. For this reason, its level and the quality of its water is also an issue of concern for the two countries.

Given that drainage water for the Altyn Asyr lake originates from the Amu Darya, this contribution focuses mainly on this catchment area. In order to fully understand the geopolitical situation, it is however fundamental to have a clear picture of all transboundary waters of Turkmenistan, starting from the Murgab river basin. From the mountains of Afghanistan, the river extends itself to the Turkmen city of Mary, where it mixes with the Karakum canal and north of which it ends up in the desert. The Tejen represents another significant transboundary river for Turkmenistan. It also originates from the reliefs of Afghanistan, flows westward to Herat and northward along the border with Iran, defining it, before disappearing in the Karakum desert. In 2004, Iran and Turkmenistan inaugurated the Doosti dam,

¹ Quoted from his briefing to the Security Council of April 15, 2010, on the Secretary General’s visit to Central Asia.

also known as the Iran–Turkmenistan Friendship Dam, which finds itself on the Tejen river. Located on the border between the two countries and very close to the border with Afghanistan, its reservoir plays an important role in stabilizing water supply to avoid social, economic, and environmental catastrophes such as the ten month drought of 2000. Through a pumped scheme, the reservoir also provides drinking water to the distant city of Mashhad, which is the second largest city in Iran. This greatly extends the scope and import of the Tejen river basin.

Finally, the Atrek river flows from the Iranian to the Turkmen side west of the Kopet Dag mountains. With a changing riverbed, its waters are used mainly for irrigation and reach the Caspian Sea only in flood season. The latter is a transboundary water body itself, shared with Azerbaijan, Iran, Kazakhstan, and Russia. It is of great importance for Turkmenistan because of its coastal and underwater oil and natural gas reserves, because of its influence on regional climate and environmental change, and because it is the natural habitat of a Turkmen staple produce such as sturgeon, from which caviar is derived. The government is also investing a lot in tourist infrastructure through the Avaza development project. As in-depth analysis of this water body goes well beyond the economy of this chapter, the reader is invited to refer to other titles of this series by the same editors, for further information [22, 23].

3 Historical Perspective

In order to fully understand the context, it is important to at least provide an overview of the kinds of interactions experienced in the lifetime of individuals that are now at senior positions of government structures. We all know that the Soviet period was characterized by massive investment in water infrastructure and ambitious projects that greatly impacted nature, society, and the economy. Cooperation among Soviet republics was mediated and sometimes enforced by Moscow and it resulted in a system where – by greatly simplifying it – the downstream Kazakh, Turkmen, and Uzbek SSRs were providing oil and natural gas, in which they are rich, to the upstream Kyrgyz and Tajik SSRs in exchange for water. Research, surveying, and design were carried on mainly by the branch of the “Hydroproject” Institute in Tashkent, including the planning of dams and canals. This is perhaps the reason for the popular claim reported by Erika Weinthal that the Uzbeks are the “water people” or *vodniki* of Central Asia [24, 25]. A series of agreements was in place with Iran and Afghanistan to manage transboundary rivers.

By the early 1980s, the situation of the Aral Sea was catastrophic. On top of that, the Soviet invasion of Afghanistan and the Iranian revolution of 1979 greatly contributed to the destabilization of the whole region. The Soviet response to the situation was the launching of a large-scale planning effort to save the Aral Sea. In 1982, a Water Resources Master Plan for the Amu Darya and Syr Darya river basins adopted the principles of limiting water extraction per hectare of irrigated land and of sharing available water among the riparian SSRs. By the mid-1980s, detailed regulations were

issued for the operationalization of these plans and two river basin organizations were created for the management of the Amu Darya and the Syr Darya, respectively. According to most witnesses, in this period, the role of Central Asian SSRs, including the Turkmen SSR, was rather passive, as major decisions were taken in Moscow.

In the early 1990s, the fall and dissolution of the Soviet Union created a vacuum. This meant the need to establish a new mechanism at least capable of mediating disputes among the newly independent states. This did not come from the Community of Independent States (CIS), but in the form of the Interstate Commission for Water Coordination (ICWC), which was created as a regional intergovernmental arrangement, where all states of the region are equally represented. The two river basin organizations were restructured as joint companies and an ICWC Scientific Information Centre (ICWC SIC) was established in Tashkent to exploit synergies with the “Hydroproject” Institute. Over time, the ICWC SIC has become a key resource for water information in Central Asia. The fall of the Soviet Union also brought along a shift from planning to programming. An International Fund for Saving the Aral Sea (IFAS) was established to finance projects to mitigate the causes and to adapt to the consequences of the situation in the Aral Sea basin. Riparian and donor countries have pledged and invested hundreds of millions of dollars through this mechanism. Without the mediating role of Moscow, some consistency was lost in transition, despite the best efforts at coordination by many partners. Moreover, the sudden absence of an authority capable of arbitrating problems and enforcing solutions meant the emergence of disputes in the long term.

For Turkmenistan as for most newly independent states, these were eventful years of hope and enthusiasm under the leadership of Saparmurat Niyazov, also known as Turkmenbashi. Few individuals knew how to run a fully independent country. Few knew exactly what they were doing: on one hand, there was the tendency of welcoming all initiatives coming from abroad; on the other hand, path dependency from Soviet structures can be observed alongside the desire to renew everything, such as in the case of the Aral Sea. As it can be noticed comparing the list of participants to international meetings and the number of treaties signed and ratified since independence, Turkmenistan was participating actively in international processes until the mid-1990s. The number of projects implemented with the assistance of donor countries, international organizations, and financial institutions was also quite high.

It was not until the decision taken in 1995 to strictly adhere to permanent neutrality in its foreign policy that Turkmenistan started to progressively withdraw from the international scene, refusing to participate in international meetings and projects and, of course, to become member of new organizations or party to new conventions, with few exceptions [26]. There are many hypotheses about this empty chair policy: some believe, for instance, that it was a reaction to overexposure and negative experiences in the early period, while others argue that it was an explicit foreign policy choice. The fact is that, for the following decade, Turkmenistan effectively closed itself to international cooperation, even refusing development aid. The only exception was a general support to the United Nations because of its universality and neutrality. A significant gesture was calling a national holiday after the Turkmen proverb “a drop of water is a grain of gold,” which is still celebrated

on the first Sunday of April and is an opportunity to take stock of what the country does in the water sector. Another example is the Framework Convention for the Protection of the Environment and Sustainable Development in Central Asia, which was proposed in 2006 and which includes provisions for the management of transboundary waters.²

Since late 2006, the arrival to power of Berdimuhamedov and his policy of reform and increasing openness brought along a new wave of hope for international cooperation. With regard to foreign policy, the reform process started from improved relations with neighboring countries, from Afghanistan, which receives humanitarian and development aid from Turkmenistan, and Iran to Kazakhstan and Uzbekistan. This represents a welcome development for improved management of transboundary waters and has already been reflected in a more active stance in IFAS, which is the only true regional arrangement that is truly functioning at present time, as ICWC and other processes are captive of either the rivalry for leadership in the region between Uzbekistan and Kazakhstan or the conflicting interests of upstream and downstream countries.

Ashgabat slightly distanced itself from Russia, considering that dependence on gas exports to Moscow was excessive, and carefully balanced its relations with all major powers, from the USA to the EU and from India to China, particularly through economic policy. The pursuit of positive neutrality is possible also because of the relative wealth of a country, which is considered medium income by global levels and which allows it to act as a donor more than a recipient country. In 2010, development aid to Turkmenistan accounted for only about 16 million USD, according to UNDP. At the multilateral level, Ashgabat increased its participation in United Nations projects and processes and relaunched relations with development banks. Under Berdimuhamedov's leadership, it now pursues the adoption of international standards. To do so, it has partnered with international institutions such as the European Bank for Reconstruction and Development (EBRD) and the UNECE, which is a standard setting organization in fields ranging from water to the environment and from housing to transport, especially under the leadership of its former head Ján Kubiš.

In this framework, Turkmenistan often volunteers to act as chair of multilateral processes and to host international conferences in the magnificent buildings completed over the last few years in Ashgabat. Moreover, because of its economic resources, it often proposes to host international centers, such as the new Regional Center for Climate Change mentioned above or the United Nations Regional Center for Preventive Diplomacy for Central Asia, which was launched in 2007 and whose presence in Ashgabat is a reflection of the opening and neutrality of the country. Water and the environment is also one of the three priority areas of the center³ [18, 19]. While the country is still young and developing, it is too early to make a balance of foreign policy under Berdimuhamedov.

² See article 9. On November 26, 2006, the framework convention was signed only by Kyrgyzstan, Tajikistan, and Turkmenistan.

³ See its program of actions for 2009–2011 and, most recently, for 2012–2014.

4 Main Issues

After having looked briefly at transboundary water bodies and having provided a short historical overview, we will now analyze the three major drivers of cooperation in the water sector. These are regular supply of water from upstream countries, sharing water with neighboring countries, and sufficient supply of water to the Aral Sea. These are also the main issues for the Altyn Asyr lake and, more generally, the Amu Darya basin. Other issues such as climate change or risk management, which may be of great import at the global or regional scale, but that, for the geographical configuration of the country or for other contingencies are not currently at the very top of the agenda, will also be mentioned. It can be noted that main drivers are relatively short term, while the latter issues are more long term. This tension is frequent in all kinds of decision making – not only in Turkmenistan – and is a major concern for the sustainability of any given policy. Because of the sensitive nature of the first set of issues, most international partners have no choice but to work on questions that are currently not at the top of the government agenda, while they aspire to contribute to more critical issues such as solving the problem of the Aral Sea.

The regular supply of water from upstream countries is of great import for downstream countries such as Turkmenistan and Uzbekistan. Of course, it also important that water is sufficient to meet the needs of downstream countries, but this responsibility is shared by both upstream and downstream countries and will be considered from the perspective of the whole basin. The emphasis here is on regularity because, besides natural variability, such as seasons, there is also human generated variability. This depends mostly on interventions upstream, such as the construction of a new dam or the operations of existing ones or the launching of large irrigation schemes. Of course, upstream countries can and have the right to do so and downstream countries can and have the right to be concerned about undesirable effects such as the extremes of draught and flooding. With international agreements and judicial decisions, international law provides principles, instruments, and examples of how to solve these issues and international partners are working closely with the governments of the region to achieve peaceful solutions [15, 27]. Particularly in the latter period, Turkmenistan has consistently highlighted the need to avoid confrontation, military and otherwise, which would be detrimental to all. It has insisted on the importance of reaching a “mutually beneficial” agreement for the “rational use” of water resources.

Another key issue for Ashgabat is the sharing of water with neighbors. Turkmenistan is downstream with regard to Iran and Afghanistan and is both upstream (middle part of the Amu Darya) and downstream (lower and upper part of the same river) for Uzbekistan. Here, we mean active sharing alone, i.e., the water flow that is left for downstream countries, given that passive sharing or the water that is received from upstream, has been and, at the same time, will be dealt with in the previous and following paragraph. For the Amu Darya basin, this is still regulated by the 1992 Almaty Agreement, which allocated 43% of the water drainage of the Amu Darya to Turkmenistan and which, by the way, also created

the ICWC. Other issues, such as infrastructure maintenance, are regulated by a more specific agreement. Governments hold bilateral and sometimes multilateral meetings on these topics and there is regular collaboration between operators on both sides, such as in the case of the Qarshi pumping stations shared by the two countries [21]. As the country is currently under the agreed share and given that exchange with Uzbekistan is generally positive, this would be no great issue, if it was not that the country seems to be aware of the fact that, if current trends are confirmed, according to frequently quoted government sources,⁴ Turkmenistan risks running out of water by 2020. This is one of the reasons why, in recent years, the government has been putting so much emphasis on saving water and, more generally, on the rational use of water. As it can be seen from the data below, this is especially pressing in the Amu Darya basin, also considering that the amount of water used by Uzbekistan is comparable.

	How much of the share agreed in 1992 of the Amu Darya is actually used by Turkmenistan? ⁵	How much water of the Amu Darya is used by Turkmenistan for nonirrigation purposes? ⁶
1990	76%	1%
1997	70%	2%
2010	79%	9%

There is no need, however, to wait until 2020 to be concerned about water consumption in the whole Amu Darya basin. In Soviet times, ambitious projects and irrigation practices resulted in the excessive use of the river's water, which caused in turn water supply to the Aral Sea to become insufficient. Moreover, while the 1992 Almaty Agreement provides grounds for distributional justice among the five Central Asian republics, it theoretically allows them to withdraw 100% of the water of the Amu Darya, if you sum the share of each state. This leaves nothing for the Aral Sea or, to put it differently, puts the responsibility solely in the hands of riparian states and their capacity and good will to ensure that sufficient amounts of water end up in the Aral Sea, which is clearly not the case. In this regard, Turkmenistan is often criticized in international contexts for its large and liberal consumption of water. Its majestic fountains are often cited as example, even if consumption for nonirrigation purposes is relatively small compared to the agricultural sector, including cotton, as it can be seen in the figures above. In order to solve the issue of excessive water use, IFAS has been implementing large programs funded by the countries of the region and by donors, frequently with the assistance

⁴ This must be at the national scale. I am not aware of exactly how the projection was calculated.

⁵ According to simple calculations of the author based on data produced by the Joint Company "Amu Darya" and published on the web portal CAWATERinfo. The total mean annual flow of all rivers in the Amu Darya basin is assumed to be constant and estimated at around 74.22 km³ (without the Zeravshan).

⁶ Based on the same data as above. UNECE reports that the 1997 figures are actual water uses, while the 2010 figures are prospective water requirements [20].

of international organizations. However, there is no binding agreement and no way for the international community to force riparian countries to keep water use to sustainable levels and to manage the Amu Darya so to ensure that it receives sufficient amounts of water. The environmental pressure caused by the social and economic damage along the shores of the Aral Sea is serious, but seems, at this stage, to be considered less important than the losses that would derive from reducing water consumption in certain areas and for specific activities. This is a conscious and explicit political choice. There is, moreover, the fear that if a given country went ahead with large water saving plans, other countries would not do the same, which would result in a comparative disadvantage for the virtuous country. This is a typical cooperation dilemma. This does not mean, however, that the perception and understanding of the situation or the actual situation might not change in the future and that countries could not find the right incentives and political will to limit water use to sustainable levels.

Another important issue but one that has not reached the very top of the government's agenda yet is that of climate change. As one of the editors of this volume has pointed out in several occasions [28], Central Asia and Turkmenistan are among the parts of the world that have already experienced the highest increases of temperature and that are expected to suffer the highest increases in the coming future, which is cause of particular concern given the relative scarcity of water, that most of the country is desert and that many settlements are located in mountain areas. Most international organizations and development partners are somehow involved in trying to bring the attention of the government on this issue. The leadership of the country proved to be sensitive to the issue, launching high visibility initiatives such as the already mentioned regional center. It is likely that changing climate will result in more extreme events such as draughts and floods, which are already cause of concern. Risk management needs not only sustainable land and water management but also early warning and alert systems that sometimes need an international reach, such as in the case of most transboundary rivers. The governments of the region, which is prone to natural disasters such as earthquakes, are in regular contact on the matter and many international partners are also involved strengthening the capacity of the governments to respond.

Other issues of concern with an international dimension are environmental impact assessment of transboundary projects, such as dams and new irrigation schemes, prevention of and fighting against transboundary pollution, and transboundary effects of industrial accidents that can contaminate water. Access to environmental information, such as water quality in specific areas by the public, is another issue often raised by international partners. Nontraditional issues such as payments for ecosystem services, such as water sanitation performed by certain ecosystems, or more generally the so-called "green economy" discussed at recent international conferences, including ecotourism in wetlands, are relatively new. Another nontraditional approach to water management is including trade in agricultural products also in the water balance of countries. It is often said that

exporting one tomato is like exporting four gallons of water. As far as I know, this approach is new to the region. Finally, technology exchange must also be mentioned. Turkmenistan actively uses international conferences and scholarly exchanges to invite experts from the USA, Israel, as well as other countries, to introduce new technologies and innovative techniques in the country.

5 Formal and Informal Interactions

International cooperation is not limited to formal interactions. An issue that is often overlooked in the various analyses is the co-presence of different types of interactions. There is in fact a wide range of informal activities going from general monitoring to the daily running of irrigation schemes and the cleaning up of riverbanks. These practical activities are usually performed at the level of operators and local governments. While there can be local rivalries and misunderstandings, in most cases cooperation with the other side of the river seems to be regular and positive, especially on environmental issues, cemented as it is by the sharing of common resources and by many years of living side by side. Many individuals working on two sides of the same border have studied together in Soviet institutes and have developed links of friendship. This seems to hold true with all neighboring countries, from Uzbekistan to Afghanistan. These activities are usually performed below the radar of officialdom as there is no need to have formal meetings and exchanges. Of course, the official level regularly monitors the situation and provides inputs, ultimately exercising control, if needed. On the Amu Darya, government authorities are more vigilant toward the Afghan than the Uzbek border for obvious security reasons.

Turkmenistan, however, distinguishes itself for its high level of formality both internally and externally. This is a reflection of its Soviet past and of the huge role that the public sector and government structures play in the national economy, as well as perhaps a cultural trait. Level of formality is an important trait in Turkmen domestic and foreign policy and is often used as a way to prioritize, also in the water sector. Huge importance is given, for example, to high level foreign guests. Their participation in official celebrations, such as the national holiday “a drop of water is a grain of gold,” tends to have positive effects on relations between Turkmenistan and international partners, from donor countries to international organizations. Respect for elders and generous hospitality are traditional values in Turkmenistan, as well as in the greater region. There are many kinds of formal interactions and they range for the most formal, such as agreements and commissions, to the less formal, such as meetings and programs. The general trend is toward less formality, but there is still – and I have recently argued that there should be [29] – room for formal frameworks, including legal agreements and institutional structures. This is particularly true in the case of Turkmenistan also in the water sector.

6 Bilateral and Multilateral Relations

Two main types of relations can be identified in international cooperation. On one hand, there are bilateral relations between Turkmenistan and other countries individually. In the water sector, these countries can be classified in neighbors, donors, and others. On the other hand, there are multilateral relations at different scales: subregional, regional, and global. Multilateral relations often take place in the framework of international agreements or organizations. The following paragraphs are going to present the main bilateral and multilateral relations of Turkmenistan relevant for the water sector. This will allow to complete an overview of the status of international cooperation of the country in this issue area.

6.1 Bilateral Relations

The most important partner of Turkmenistan in the water sector is Uzbekistan, as the two countries share a significant part of the Amu Darya. From the trinational border shared also with Afghanistan, the river moves northwest well into Turkmen territory. It then defines the border with Uzbekistan north of Turkmenabat before fully entering Uzbek territory south of Urgench. As with all its neighbors, Ashgabat cultivates friendly relations with Tashkent. Meetings are frequent both at formal and informal levels. The countries jointly operate irrigation schemes such as the Qarshi pumping stations. These are regulated by the Agreement between Turkmenistan and the Republic of Uzbekistan on Cooperation on Water Management Issues, signed in Turkmenabat on January 16, 1996. This agreement includes some provisions for dispute resolution and is still in force. Also, the joint management of the large and shallow Sarygamysh Lake should not be forgotten. Its level and the quality of its water are of vital importance for the inhabitants of the surrounding area. While it is true that the two countries have some basic interests in common due to their geographical position and share many positions, it is unfair to equate the foreign policy of the two countries as far as water is concerned. Turkmenistan is very careful at maintaining its neutral stance and good neighborly relations, while Uzbekistan generally favors a bilateral approach. For this reason, it is an exaggeration to characterize them as a downstream block against upstream countries.

The second most important partner for water management is Afghanistan. Three important rivers originate from there: the Amu Darya, the Murgab, and the Tejen. For decades, relations have been complicated by the Soviet invasion, civil war, the Taliban regime, and the current war. In recent years, Turkmenistan has tried to foster good neighborly relations, also extending humanitarian assistance and development aid. In Soviet times, attempts were made to establish a shared water monitoring system, but war got in the way. In case of floods upstream, alert mechanisms for downstream countries are weak. The situation makes it difficult to know exactly what happens on the Afghan side and Turkmen experts are eager to learn more about it,

especially considering the importance of transboundary rivers. Moreover, for security reasons, it is difficult for foreigners, including official representatives of international organizations, to obtain permission to visit and assess the situation on the border. Peace and prosperity in Afghanistan will definitely have consequences for water use and for downstream countries. The potential for collaboration between experts and administrations of the two countries is great and neutral frameworks such as the UN Special Programme for the Economies of Central Asia (SPECA), where both countries are full members and whose chairmanship is currently held by Turkmenistan, are ideally positioned to facilitate these contacts.

The third most important partner is Iran. The two countries share two rivers: the Tejen and the Atrek. Only the latter originates in Iran. We have seen that the Tejen flows from Afghanistan, defines first part of the Afghan–Iranian border and part of the Turkmen–Iranian border, where it feeds the Doosti dam, also known as the Iran–Turkmenistan Friendship Dam. The management of the dam is regulated by an agreement signed in 2004, which is similar to the bilateral agreement with Uzbekistan. With the exception of the Doosti dam, where a joint coordination commission was created, it must be noted that Turkmenistan has not established bilateral commission for the management of transboundary rivers, despite the fact that they are an instrument chosen by many countries and enshrined by several agreements and conventions [30]. The dam is of vital importance for the Iranian city of Mashhad, so trilateral cooperation among Iran, Turkmenistan, and Afghanistan is essential, considering that the Tejen river also flows through the Afghan city of Herat. The joint management of the Atrek river and the Caspian Sea are also important but are more distantly related to the focus of this book. Relations between the two countries are friendly and meetings are regular.

Another important country in the region is Tajikistan. With 80% of the Amu Darya’s run-off originating from there, the country is a “water superpower.”⁷ Of course, any change in water use in Tajikistan has consequences for Uzbekistan and Turkmenistan and the Aral Sea. The first and most immediate issue of concern is the presence of adequate mechanisms to alert downstream countries in case of flood upstream. A second issue is the potential consequences of the failure of existing or planned hydropower plants for downstream countries. A third issue is the integrated management of the river system, particularly with regard to finding a balance – and mechanisms to regulate it – between hydropower production, land irrigation, and clean water, on one hand, and guaranteeing that a sufficient amount of water ends up in the Aral Sea, on the other hand. For these reasons, relations between the two countries have known moments of tension in the past, but these have been much lower than the levels experienced with Uzbekistan on these issues. Turkmenistan tends to deal with the situation through regional platforms such as IFAS, SPECA, and UNRCCA. Diplomatic relations between the two countries are normal. These instances will be discussed in more detail below together with other multilateral processes.

⁷ Calculation of the author based on data published by the IFAS Executive Committee.

Finally, relations with donor countries in the water sector, such as the USA and the European Union, are cordial, but conditioned by the double reluctance of donors to fund activities in a middle-income country and of Turkmenistan to receive financial assistance it has not requested. There is a general agreement that the country needs technical assistance and capacity building, as many experts left the country after the collapse of the Soviet Union. This is a kind of assistance that donors are normally happy to provide, as it allows them to give a competitive edge to their own experts, particularly in the case of Germany, France, and other European countries. Turkmenistan generally welcomes such assistance, such as in the case of the TACIS program, as long as it remains technical assistance and does not come with a hidden agenda. Spontaneously or as a result of technical assistance, Turkmenistan also collaborates with research institutes or individual experts from Russia, Israel, the USA, as well as other parts of the world, particularly for the implementation of its water projects. International conferences organized in Turkmenistan are usually the occasion to foster these collaborations.

6.2 *Multilateral Relations*

Moving to multilateral relations, there are at least three distinctions to be made: first, between formal and informal groupings of countries; second, based on sector or functions; and third, according to scale. With regard to the first distinction, we will focus on formal processes. As we have already discussed above, Turkmenistan keeps a neutral stance and tends to favor formal interactions. Concerning the distinction among the various sectors, the most important difference is between development banks and other international organizations Turkmenistan is member of. In fact, while countries usually find themselves in a position where they request the assistance of development banks, such as the World Bank, the Asian Development Bank (ADB), and the EBRD, to finance various initiatives, the relationship with other international organizations is normally the opposite. Organizations such as the United Nations often make proposals, but they rarely have resources themselves. They need to partner with donor countries to obtain these resources and they need to obtain the agreement of recipient countries to implement projects. This puts countries such as Turkmenistan decidedly in the driver's seat. Now, the relative wealth of the country puts it in a position where its need for funding from development banks in the water sector is limited, so this distinction is also not fully relevant to our case. Therefore, we chose scale as the main organizing principle for the concluding paragraphs, distinguishing between the subregional (Central Asia) and regional (Europe or Asia) scale, on the hand, and the global scale, on the other hand. We will see that the position and relative weight of Turkmenistan with regard to other countries at the different scales makes a significant difference for its attitude toward various platforms.

At the subregional scale, the three main platforms are ICWC–ICSD–IFAS and UNRCCA. As it has already been mentioned above, ICWC was created in 1992 to

act as secretariat for the Almaty Agreement. Turkmenistan played an important role for its creation in the early 1990s. Under the ICWC, there is also an Interstate Commission for Sustainable Development (ICSD), which takes care of more specifically environmental issues, with a good degree of success. The environment is the most advanced sector in terms of subregional cooperation and Turkmenistan played an important role for the creation of this body as well. A SIC was established under the ICWC in Tashkent and acts as the main source of information for the water sector in Central Asia. There is a branch of the SIC in each member state, including Turkmenistan, and Turkmen authorities regularly share relevant information with the SIC. Turkmenistan strives to maintain positive working relations with all members of the ICWC, the ICSD, and the SIC. The greatest efforts are made, however, with regard to IFAS, which is arguably the only fully functioning autonomous subregional arrangement in Central Asia.

Like the five other member states, Turkmenistan also has a permanent representative in the IFAS Executive Committee, whose headquarters change on a rotating basis. This makes sure that the interests of all countries are taken into consideration. This is one of the advantages of IFAS, which resulted in the approval of the Aral Sea Basin Program (ASBP), which has already reached its third cycle. Supported by donors, the ASBP is basically a project container that is the result of a careful balance between the position of both upstream and downstream countries as requested by the presidential summit of 2009. There are in fact projects to support adaptation to the consequences of environmental change along the shores of the Aral Sea, as well as projects to promote mitigation of its causes in all riparian countries. To be fully adopted, the ASBP needs however to be approved at the national level by all member states. At the time of writing, Turkmenistan is about to join Kazakhstan and Uzbekistan, who have already approved it. It is hoped that the fact that no upstream country has approved it yet is not a sign of politicization of the program, which is mutually beneficial and quite neutral, which is in turn one of the prerequisites of Turkmenistan to support it. It is worth noticing that a significant part of the funding for the ASBP will come from Central Asian republics themselves, particularly for projects at the national level. Donor support was requested for regional initiatives, particularly from Germany and ADB.

Another relevant platform is represented by the UNRCCA, considering that water and the environment is one of its three priority areas. Mission created in 2007 through the UN Secretary Council, the UNRCCA constantly engages in political dialogue with all Central Asian republics to prevent conflict, also in the water sector.⁸ This comes in the form of good offices of the UN Secretary General, who visited the region in 2009, and of his special representative, Miroslav Jenča, whose office is hosted in Ashgabat. This comes also in the form of regular consultations at the highest political level, of meetings, seminars, and trainings on the general situation, but more frequently on specific issues such as the joint

⁸ See the letter dated May 7, 2007, from the Secretary General to the President of the Security Council (S/2007/279).

management of transboundary waters. The UNRCCA currently manages a project sponsored by the government of the USA to promote dialogue and a mutually beneficial agreement on water resources management. In this manner, it supports the work of IFAS and it builds capacity about international law, mediation of potential disputes on transboundary waters, and for the creation of an early warning mechanism for transboundary water issues, with the support also of France. The idea of such a center in Central Asia has been in the air for several years, but the offer of Turkmenistan to host it in Ashgabat once again proved fundamental for the actual opening of the center.

At the regional level, important frameworks of reference for water issues are the two UN Regional Commissions, the UNECE, which is based in Geneva, and the Economic and Social Commission for Asia and the Pacific (ESCAP), which is based in Bangkok. Together they manage and service SPECA. All Central Asian republics are at the same time members of both regional commissions, which are essentially standard setting organizations also in the water and environment sectors. The general neutrality of the United Nations and the technical nature but political leadership of the regional commissions – the Executive Secretary is traditionally a former minister of foreign affairs and an Under-Secretary General (USG) – makes them ideal platforms to advance cooperation in the water sector in the region. The last UNECE “Environment for Europe” Ministerial Conference, held in Astana in 2011, focused on water and the green economy and provided an opportunity for the countries of the region to discuss issues of common interest and to prepare for Rio + 20.

It must be noted, that the UNECE, in particular, has developed and services the 1992 Water Convention, which enshrines most generally accepted principles for the management of transboundary waters. In the framework of the EU Water Initiative’s (EUWI) National Policy Dialogue (NPD) on Integrated Water Resources Management (IWRM), the UNECE is supporting the government of Turkmenistan in the accession process, which is expected to take place shortly. In particular, the UNECE is supporting a working group of national experts that are assisting the government in the preparation of the technical documents and draft legislation needed for accession. The EU has partnered with the UNECE to support the NPDs in Central Asia. The 2002 EU Water Framework Directive and the 1992 UNECE Water Convention are the two main frameworks of reference. With several non-UNECE member states that expressed interest in joining the convention, including Iran and Afghanistan, it must be noted that the 1992 Water Convention, on the hand, is evolving from a regional to a global convention, on the other hand, was caught in the dispute between upstream and downstream countries and politicized, even if the letter of the convention merely reflects general principles that are commonly accepted in many other subregions.⁹ Some countries proposed to develop a water convention specific to Central Asia. Turkmenistan itself had

⁹The 1997 New York Convention, which was developed by the International Law Commission of the UN General Assembly and was supposed to be the global convention, has not managed to enter into force yet because of some controversial provisions.

presented the Framework Convention for the Protection of the Environment and Sustainable Development in Central Asia in 2006, but these approaches have not gathered consensus from all interested countries yet.

Other frameworks active in the water sector at the regional level are a development bank such as the Islamic Development Bank (ISDB) and an international organization such as the Organization for Security and Cooperation in Europe (OSCE). While the former is providing loans for rural water supply infrastructure, the latter is implementing small projects focusing on capacity building for the sustainable management of land and water to fight against soil degradation. On the side of development banks, the absence of the EBRD and the ADB from the water sector is significant if compared to other countries in the region. Again, the availability of financial resources for water projects gives Turkmenistan a high degree of autonomy in this regard. A specific feature of these regional arrangements is that they are sometimes dominated or have a strong imprinting from a large country or group of states in the broader region. While this is not necessarily a problem, this may clash with the strict neutrality of Turkmenistan. The OSCE, for instance, is perceived to be dominated by Western European countries and their values, the ADB by China, the EBRD by the United Kingdom, the ISDB by Saudi Arabia, etc.

Finally, we move to the global level, where somehow Turkmenistan, because of its foreign policy, feels more comfortable, particularly in the framework of the United Nations. Because of their neutral platform, the United Nations are in a position to collaborate with Turkmenistan much more closely than other international partners. However, water being a territorial resource, global initiatives in the water sector are struggling. We already saw how a regional agreement, such as the 1992 Water Convention, is de facto becoming a global standard. It is interesting to see how Target C to “halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation” of Millennium Development Goal (MDG) 7 to “ensure environmental sustainability” is generally being pursued at the national scale. There are traces of this in the United Nations Development Assistance Framework (UNDAF) negotiated between the United Nations and the government, but there are no projects currently being implemented specifically about water supply and sanitation, as far as I know. The United Nations Development Programme (UNDP), which is the only international organization present in Turkmenistan capable of implementing large projects, has instead obtained funding from the new Adaptation Fund to implement a two million dollar project to address climate change risks to farming systems at national and community level, with particular attention to the water sector. Concretely, this means that some analysis, support to the revision of the Water Code (in collaboration with the UNECE), and plenty of activities at the farmer, communal, and water users association level will be implemented. Again, while the government focuses on core functions such as water supply and sanitation, international partners try to promote forward looking issues such as climate adaptation. This resonates well with the government, which we saw promoting high visibility initiatives, such as that of launching a Regional Center for Climate Change in Ashgabat. Often, these international initiatives in the environment sector are also supported by UNDP, which is

implementing projects to prepare the countries of Central Asia, including Turkmenistan, for their participation in large international conferences such as Rio + 20.

A peculiar case is that of the World Bank. In the late 1990s, it had approved a thirty million dollar project to improve water supply and sanitation in the northern region of Dashoguz in the framework of the ASBP. In the early 2000s, it had also performed a study on integrated water resource management at the subbasin level, where the need is particularly acute because of the presence of the Sarygamysh Lake and the proximity of the Aral Sea. Besides national and local authorities, some of these activities were implemented in collaboration with the United Nations Children's Fund (UNICEF). For reasons that are described in the final report of the project, which is published online on the bank's website [31], the project was not completed and its implementation was considered unsatisfactory, I assume by both the bank and the government. This was followed by a long period when the bank did not grant any loan to the country, which coincided with the closing up of the country until the mid-2000s. In recent years, relations with Turkmenistan have normalized and the World Bank is once again making investments. As far as I know, no loan has been granted in the water sector yet, but this may come in the future. In the framework of the NPD, the Ministry of Water Economy has recently expressed some interest in launching a pilot project of integrated water resource management at the subbasin level in the Dashoguz region, which may be an opportunity to build upon the work of the World Bank in the early 2000s.

Finally, we must not forget more traditionally environmental initiatives in the water sector such as the sites designated under the 1971 Wetlands Convention and the UNESCO Biosphere Reserves. These are purely scientific initiatives, where cooperation is relatively easier and which receive strong support from the government. In the case of the former, Turkmenistan rejoined the convention, which focuses on the protection of wetlands and of the migratory birds that inhabit them, in 2009 (its territory had been under the convention until the fall of the Soviet Union). The only Ramsar site in Turkmenistan is the Hazar State Nature Reserve on the Caspian Sea coast south of Turkmenbashi. The site is being supported by the UNDP with generous funding from the Global Environment Facility (GEF). Together with four other natural sites, including the Amu Darya State Nature Reserve, the site is now also on the national tentative list of Turkmenistan to enter the UNESCO World Heritage List. No natural property is currently located in Turkmenistan. The inscription of a site on the list would be not only a great recognition for Turkmen heritage but would also be an excellent manner to ensure continuous monitoring of the protection and sustainability of these sites, also in terms of tourism development. Another site on the national tentative list, the Repetek Biosphere State Reserve, is also a UNESCO Biosphere Reserve, the only one in the country. This is another tool to ensure continuous monitoring of sights, as well as a way to transform them in living labs to improve our understanding of coupled human–environment systems [32, 33].

To conclude our overview of bilateral and multilateral relations of Turkmenistan, it is important to mention a peculiar platform, the Environment

and Security Initiative (ENVSEC), which brings together six global and regional partners – the United Nations Environment Programme (UNEP), UNDP, UNECE, OSCE, the Regional Environmental Center (REC), and the North Atlantic Treaty Organization (NATO) – to fight against environmental threats to reduce the risk of conflict. Interagency coordination is well known to be an arduous exercise, but this one has been more successful than others. Moreover, because of its many water and environmental issues, Central Asia is certainly one of the key areas for this initiative, which has recently produced an analysis of the situation in the Amu Darya River Basin [21].

Of course, this quick perusal does not include all aspects and certainly some international partners and cooperation activities of Turkmenistan in the water sector have not found their place here. The objective of this chapter was to describe, to provide a conceptual framework to analyze the situation, and to highlight major elements, so the reader can understand the overall picture and possess the elements to deepen specific issues. Even if there is no intention to evaluate the foreign policy of Turkmenistan in the water sector, the picture emerging from this analysis is that of a country principled in its relations, selective about its partners, in good terms with its neighbors, with a solid, balanced, and expanding network of international connections. In this manner, Turkmenistan is contributing to developing institutions capable of managing transboundary waters in times of increasing environmental pressure.

References

1. Haas PM (1990) *Saving the Mediterranean: the politics of international environmental cooperation*. Columbia University Press, New York
2. UNECE (2012) *Environmental performance review of Turkmenistan*. Draft presented at the Expert Group on Environmental Performance, Ashgabat, March 13–15, 2012. UNECE, Geneva
3. Stanchin I, Lerman Z (2010) Water in Turkmenistan. In: Arsel M, Spoor M (eds) *Water, environmental security and sustainable rural development: conflict and cooperation in Central Eurasia*. Routledge, Abingdon, pp 250–266
4. Berdiyev A (2007) *International and national water law: Turkmenistan*, 2nd edn. TC ICWC, Tashkent
5. Babaev AG, Kolodin MV (1995) The water resources of Turkmenistan. *Problems of desert development*. *J Eurasian Stud* 4:18–23
6. UNDP (2010) *Assessment of water sector in Turkmenistan*. UNDP, Ashgabat
7. Kostianoy AG, Kosarev AN (eds) (2010) *The Aral Sea environment*, vol 7. Springer, Berlin
8. Létolle R (2008) *La mer d’Aral: entre désastre écologique et renaissance*. Harmattan, Paris
9. Zonn IS, Glantz M, Kostianoy AG, Kosarev AN (eds) (2009) *The Aral Sea encyclopedia*. Springer, Berlin
10. Dukhovnyĭ VA, Schutter JD (2011) *Water in Central Asia: past, present, future*. CRC/Balkema, Boca Raton
11. Amansaryýew B (2009) *Türkmenistanyň tebigaty täze galkynyş eýýamynda*. Türkmen Döwlet Neşirýat Gullugy, Ashgabat

12. Turkmenistan (2008) "Suw hakynda" Türkmenistanyň bitewi kanuny: 2008-nji ýylyň Oguz aýynyň 30-na çenli girizilen üýtgetmeler we goşmaçalar bilen berildi. Türkmen Döwlet Neşirýat Gullugy, Ashgabat
13. Turkmenistan (1999) The state of environment of Turkmenistan. Ministry of Nature Protection, Ashgabat
14. Kurbanov PK, Turkmenistan. Ministry of Nature Protection, Portal to Asian Internet Resources Project (2003) The state of environment: Turkmenistan. Retrieved July 5, 2012, from <http://enrin.grida.no/htmls/turkmen/soe2/index.htm>
15. Grzybowski A, Mandell L, Menaker A, Paisley R (eds) (2011) Best practices and international experience with transboundary water dispute resolution: final report of the seminar held in Almaty, on December 6–7, 2010. UNRCCA, Ashgabat
16. Libert B, Trombitaia I, Enderlein R, Vykhryst S, Steklov Y (2011) Strengthening water management and transboundary water cooperation in Central Asia: the role of UNECE environmental conventions. UNECE, Geneva
17. Nepesova MG (2006) The water resources of Turkmenistan and their transboundary aspects. In: UNECE (ed) Transboundary water cooperation: trends in the newly independent states. United Nations, New York, pp 85–88
18. Pupols A, Rahmanova B (eds) (2009) International seminar "Central Asia and global challenges," Ashgabat, March 10–11, 2009. UNRCCA, Ashgabat
19. Pupols A, Rahmanova B (eds) (2010) International seminar "Security and stability in Central Asia: interaction with international and regional organizations," Ashgabat, April 21–22, 2010. UNRCCA, Ashgabat
20. UNECE (2011) Second assessment of transboundary rivers, lakes and groundwaters. UNECE, Geneva
21. UNEP, GRID Arendal, Zoi Environment Network (2011) Environment and security in the Amu Darya River Basin. ENVSEC, Geneva
22. Kosarev AN, Kostianoy AG (eds) (2005) The Caspian Sea environment. Springer, Berlin
23. Zonn IS, Kostianoy AG, Kosarev AN, Glantz MH (2010) The Caspian Sea encyclopedia. Springer, Berlin
24. Jones Luong P, Weinthal E (2010) Oil is not a curse: ownership structure and institutions in Soviet successor states. Cambridge studies in comparative politics. Cambridge University Press, Cambridge
25. Weinthal E (2001) State making and environmental cooperation: linking domestic and international politics in Central Asia. MIT, Cambridge
26. Turkmenistan (2005) The permanent neutrality of Turkmenistan. Türkmen Döwlet Neşirýat Gullugy, Ashgabat
27. Wouters P, Vinogradov S (2003) Analysing the ECE Water Convention: what lessons for the regional management of transboundary water resources. In: Stokke OS, Thommessen ØB (eds) Yearbook of international co-operation on environment and development 2003/2004. Earthscan, London, pp 55–63
28. Kostianoy AG, Lebedev SA, Solovyov DM (2011) Satellite monitoring of water resources in Turkmenistan. *Int Water Technol J* 1(1):4–13
29. Church JM (2012) Recent trends in regional cooperation for the implementation of the concept of sustainable development. Paper presented at the International seminar "Sustainable development: key factor for stability and peace in Central Asia," Tashkent, March 1–2
30. UNECE (2009) River basin commissions and other institutions for transboundary water cooperation: capacity for water cooperation in Eastern Europe, Caucasus and Central Asia. UNECE, Geneva
31. World Bank (2004) Implementation completion report (SCL-41710 TF-25244 PPFB-P3120) on a loan in the amount of US \$30.3 million to the Government of Turkmenistan for the Turkmenistan Water Supply and Sanitation Project. World Bank, Washington, DC
32. Turner BL, Clark WC, Kates RW, Richards J, Mathews JT, Meyer W (eds) (1993) The Earth as transformed by human action: global and regional changes in the biosphere over the past 300 years, 2nd edn. Cambridge University Press, Cambridge
33. Price MF (1995) Man and the Biosphere (MAB) Project 6 in Europe and the Former USSR. *Mt Res Dev* 15(3):267–282