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7 Conflict and cooperation in the South Caucasus

The Kura-Araks Basin of Armenia, Azerbaijan and Georgia

Berrin Basak Vener and Michael E. Campana

Introduction

The South Caucasus region comprises the countries of Armenia, Georgia and Azerbaijan. The region is bordered by the Black Sea to the west, the Caspian Sea to the east, the Caucasus Mountains and Russia to the north, and Turkey and Iran to the south (Figure 7.1). The three countries have a total population of about 16 million, with Azerbaijan comprising almost 50 per cent of the total (Table 7.1).

The three countries gained their independence from the Union of Soviet Socialist Republics (USSR) in 1991. After the USSR was dismantled, industrial production, which was very well established in the 1970s and 1980s, sharply declined in the region because of the energy crisis and the dissolution of eco-

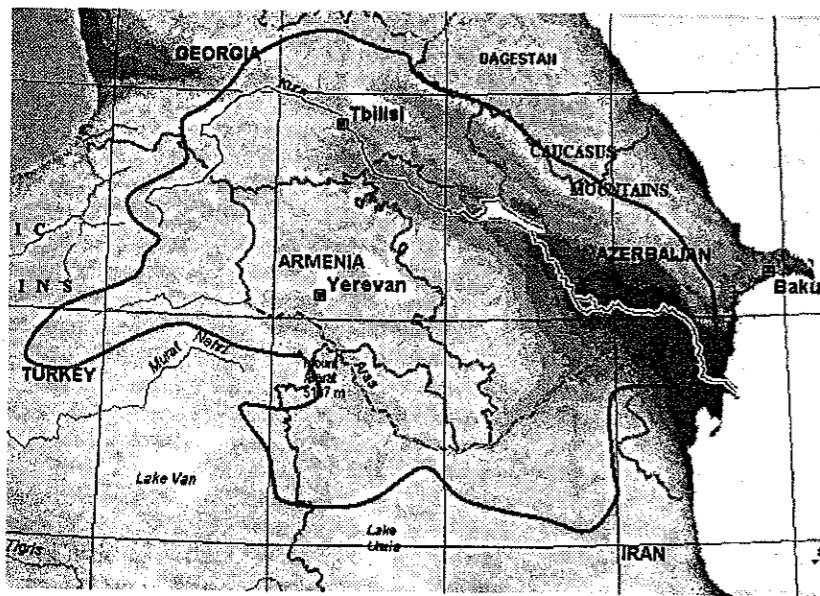


Figure 7.1 Map of South Caucasus with the Kura-Araks basin outlined in solid line.

omic ties among the former Soviet Republics. Gross Domestic Product (GDP) has decreased roughly by 50 per cent since 1991, poverty levels have reached 60 per cent, and unemployment has skyrocketed (SIDA 2002). Even though all three countries have shown strong macroeconomic recovery and growth in the 2000s and substantial poverty reduction, there has been emigration from the region to Russia, Turkey, the Persian Gulf and the West (SIDA 2002). On top of these problems, after the Soviet Union's dissolution, the region was faced with environmental degradation stemming from agriculture and industry from Soviet area.

In this chapter we focus on problems of inter-state cooperation and conflict around a transboundary water basin, namely the Kura-Araks. This river basin, in which the name Araks is sometimes spelled as 'Aras' or 'Arax', comprises the major river system in the South Caucasus. Both rivers originate in Turkey and flow into the Caspian Sea after joining in Azerbaijan. Of the total basin area of about 188,200 km², almost two-thirds, or about 122,200 km², are in the aforementioned countries; the remaining basin area is in Turkey and Iran. The Kura-Araks is one of the 'new' transboundary river systems of the former 'Second World' whose problems are largely *terra incognita* (van Harten 2002).

The water users in all three countries are faced with water quality and distribution problems. In general terms, Georgia has an oversupply of water, Armenia has some shortages which are partly caused by poor management, and Azerbaijan has a lack of water (TACIS 2003). The main use of Kura-Araks water in Georgia is agriculture, and in Armenia it is agriculture and industry. In Azerbaijan, the Kura-Araks water is the primary source of fresh water, and is used for drinking water. Almost 80 per cent of the countries' wastewater loads are discharged into the surface waters of the Kura-Araks Basin (UNECE 2003). The basin is excessively polluted due to a lack of treatment for urban wastewater and agricultural return flows, pesticides such as DDT that are used in Azerbaijan, and the recent resurgence of chemical and metallurgical industries in Georgia and Armenia (TACIS 2002).

Water resources of the Kura-Araks Basin

The Kura-Araks Basin is situated south of the Caucasus Mountains. Its borders are northeastern Turkey, central and eastern Georgia, and northwestern Iran. It contains almost all of Azerbaijan and all of Armenia (Figure 7.1). The Kura River originates in northern Turkey, flows through Georgia and Azerbaijan and then directly discharges into the Caspian Sea. The total length of the Kura River is about 1,515 kilometres (km) and it has an average discharge of 575 million cubic metres per year or MCM/yr (CEO 2002).

The Araks River originates in Turkey and after 300 km forms part of the international borders between Armenia and Turkey, for a very short distance between Azerbaijan and Turkey, between Armenia and Iran, and between Azerbaijan and Iran. The Araks River joins the Kura River in Azerbaijan (TACIS 2003). The Araks River is about 1,072 km long and it has an average

discharge of 210 MCM/yr. Table 7.1 shows the distribution of watershed area by country; Table 7.2 shows land use in the region.

Table 7.3 shows that water resources are not distributed equally in the South Caucasus. While Georgia has more water than it needs, Azerbaijan is left with a water deficit; furthermore, its groundwater is of poor quality. It obtains 70 per cent of its drinking water from the Kura-Araks Rivers. Armenia has a surface

Table 7.1 Watershed area of the Kura and Araks rivers in the South Caucasus

Country	Population (millions) (July 2003 estimate)	Kura River		Araks River	
		Per cent of total basin area	Area (km ²)	Per cent of total basin area	Area (km ²)
Armenia	3.3	15.79	29,741	22.00	22,090
Azerbaijan	7.8	30.70	57,800	18.00	18,000
Georgia	4.9	18.43	34,700	—	—
Turkey and Iran	—	35.06	66,000	60.00	61,000
Total	16.0	100.00	188,241	100.00	101,090

Sources: TACIS (2003); USAID (2002); USCIA (2004); Vener (2006).

Table 7.2 Land use in the Kura-Araks Basin (km²)

State	Land area	Disputed area*	Forested area	Agriculture			
				Arable land		Meadow, pasture	Other
				JRMP	USCIA		
AR	29,800	1,500	4,250	5,600	5,215	8,300	10,091
AZ	86,600	2,000	7,590	15,290	16,714	20,936	12,000
GE	67,700	600	10,900	7,700	7,813	NA	NA

Sources: JRMP of TACIS (2003); USCIA (2004); Vener (2006).

Note

JRMP = Joint River Management Program; USCIA = United States Central Intelligence Agency.

* As of 2006, disputed territories were Abkhazia (Abkhazians-Georgians), South Ossetia (South Ossetians-Georgians) and Nagorno-Karabakh (Azerbaijanis-Armenians) (See Figure 7.1).

Table 7.3 Kura-Araks basin average annual water balance (km³)

	AR	AZ	GE
Precipitation	18	31	26
Evaporation	(11)	(29)	(13)
River inflow	1	15	1
River outflow	(8)	(18)	(12)
Underground inflow	1	3	1
Underground outflow	(1)	(2)	(3)

Sources: TACIS (2003); Vener (2006); parentheses indicate depletion.

water shortage but has a large fresh groundwater stock that it uses for drinking water (TACIS 2003).

The data shows that the most precipitation and evaporation occurs in Azerbaijan followed by Georgia and Armenia in that order. Water is used for municipal, industrial, agricultural, irrigation, fishery, recreation and transportation purposes. The main water use is agriculture, followed by industry and household uses. Azerbaijan has the most arable land followed by Georgia and Armenia. Even though Azerbaijan has the most arable land, it is the one facing a water deficit.

Azerbaijan withdraws 57.9 per cent of its actual renewable water resources; Armenia withdraws 28.2 per cent of its actual renewable water, whereas Georgia withdraws only 5.2 per cent of its actual renewable water. However, as a country rich in water resources – Georgia's withdrawal per capita (cubic m) is 635 m³ while Azerbaijan's is 2,151 m³ and Armenia's is 784 m³. It is evident that per capita water withdrawal is disproportionate to water availability among the three countries (Vener 2006).¹ The main rivers have only two reservoirs but the tributaries have more than 130 major reservoirs. The total capacity of the reservoirs and ponds is almost 13,100 MCM (TACIS 2003). With respect to storm water and sewage effluent discharges, the Kura-Araks receives 100 per cent of Armenia's, 60 per cent of Georgia's and 50 per cent of Azerbaijan's.

Water projects in the South Caucasus

There are many projects organized and funded by international organizations such as the European Union (EU), the United Nations Development Program (UNDP), the North Atlantic Treaty Organization (NATO), the United States Agency for International Development (USAID), the Organization for Security and Co-operation in Europe (OSCE), the Global Environment Facility (GEF), and many other entities with different projects, programmes, funds and grants (Annex 1). These organizations have an investment portfolio, international funding and credits specifically for projects related to the environment, energy sources, peace, and other economic and social issues. The Kura-Araks Basin is the one of the most highly desired areas for all these organizations, and there are several projects related to the management of the basin.

Major regional projects related to transboundary water resource management are: the EU TACIS Joint River Management Project (TACIS JRMP) in cooperation with the UNDP, the NATO-OSCE South Caucasus River Monitoring Project and the USAID's South Caucasus Water Management Project. Even though most of the projects are related to each other there is little or no cooperation or data-sharing among the organizations and agencies. Nearly all the projects have common goals and activities or overlapping actions (Annex 1). They do not share or exchange information due to the lack of legally binding data exchange requirements between the countries and organizations.

The lack of communication is not only a problem on the national and international level, but also among the international agencies and organizations working in the South Caucasus. That is why the ongoing projects (OSCE, USAID,

TACIS and NATO etc.) aim at improving the cooperation among related agencies at all local, national, regional and inter-organizational levels and demonstrate the effectiveness of integrated water resources management (Annex 1).

As the Kura and Araks are transboundary rivers, it is very important to have transboundary dialogue and cooperation in the region to avoid any serious conflict among the different states and zones and also manage the different parts of the basin as whole. Exchange of reliable data and information is also crucial. Cross-sectoral interests of hydropower, irrigation, municipal and industrial supply and the environment require strengthening of legal and institutional frameworks for cooperation and the use of financial tools to account for sharing of benefits, costs and compensation for damages.

Integrated Water Resources Management (IWRM) is an important concept for linking water users, water providers and stakeholders. This calls for comprehensive basin development plans, which need to be developed with stronger participation of all riparian countries and should be based on IWRM principles.² The Nile Basin Initiative (NBI) is one of the best initiatives in the world showing how important it is for the whole basin to be managed in cooperation with the riparian countries.³

Thus, the lead actors in some of the already mentioned projects in the South Caucasus must come together and clearly define their objectives, goals and activities for more efficient results. It is crucial to establish a coordinating group that includes each of these projects' leading actors and countries for efficient and more sustainable results. As an example, the creation of a regional coordination group was suggested at a seminar on transboundary water issues in the South Caucasus⁴ in Tbilisi in November 2002. However, no actions have yet occurred. If the countries improved inter-regional cooperation, they would no doubt insist on cooperation and coordination among the various water projects in the regions.

Political, social and economic landscape

Introduction

Armenia, Azerbaijan and Georgia gained their independence from the Union of Soviet Socialist Republics (USSR) in 1991. The South Caucasus states are neither fully democratic nor fully authoritarian states. All three countries attempted to introduce democratic systems, and held relatively free elections in 1990–1992 (SIDA 2002). However, the region reverted to increased authoritarian rule because of the pressures from war, threats of economic collapse and the countries' inexperience with participatory politics, and their Soviet legacy.

A series of ethnic conflicts erupted in Nagorno-Karabakh, Abkhazia, Javakheti and other regions of the South Caucasus. Because of these internal and international ethnic conflicts the region has about 1,500,000 refugees and/or Internally Displaced Persons (IDP) (SIDA 2002; see also Spoor 2004).⁵ The South Caucasus region remains in turmoil because of ethnic conflicts, poor economies, environmental degradation and political instability. In addition, Russia

and Georgia engaged in a brief, but violent conflict over South Ossetia in August 2008.

Of the three countries, Georgia has made the greatest progress towards building a democratic polity. Azerbaijan and Armenia are still in a transition period from authoritarian regimes to full democracies. Political violence has been a constant threat in the three countries; since independence all have experienced *coups d'état*, insurrections or attempts to assassinate political leaders. As a result, political and socioeconomic reform processes in all three countries have been slow and continually suffer setbacks. Widespread corruption, bureaucratic difficulties and political instability have confirmed the South Caucasus' reputation as a relatively high-risk area for business.

Hydropolitics

During the Soviet era, each of these countries was within the USSR and water resources management of the basin was contingent upon the policy that the USSR was implementing at the time. When they became independent states, the three countries had neither regulation for water resources management nor water codes. However, each country has adopted a water code since 1992: Armenia in 1992 and revised in 2002 according to the European Union Water Framework Directives (EU-WFD); and Georgia and Azerbaijan in 1997. Nevertheless, there is not yet a uniform control and/or management system for the rivers and, in the post-Soviet period, no water quality monitoring by the riparian countries.

While the three countries are willing to cooperate on water-related issues, they have not solved their political, economic and social issues. There are currently no water treaties among the three countries, a condition directly related to the political situation in the region. There is recognition of the importance of water and river basin management, which provides the countries with a good foundation for a transboundary water management agreement.

There are political issues which make agreements difficult among the countries. Nagorno-Karabakh is one of the main obstacles, making it difficult for Azerbaijan and Armenia to sign a treaty even though it may relate only to water resources management. The Nagorno-Karabakh region is predominantly an Armenian-populated area in western Azerbaijan. Armenia supports ethnic Armenian secessionists in Nagorno-Karabakh and militarily occupies Nagorno-Karabakh, 16 per cent of Azerbaijan's land area. After the occupation, more than 800,000 Azerbaijanis were forced to leave the occupied lands; another estimated 230,000 ethnic Armenians were forced to leave their homes in Azerbaijan and flee into Armenia (USDS 2003; USCIA 2004). A ceasefire between Armenia and Azerbaijan was signed in May 1994 and has held without major violations ever since. The Minsk Group, part of the OSCE, continues to mediate disputes.

Another obstacle is the Javakheti region of Georgia. Javakheti is an area that is part of Georgia bordering Turkey, and has a total population of 100,000 people. Almost 90 per cent of the population is Armenian. Thus, Javakheti is

often cited as a secessionist region (NIC 2000). The region is more integrated with Armenia than Georgia, and Armenia supports the demand for local autonomy of the region.

European Union–South Caucasus relationships

Some discussion of the relationship between the three countries and the EU is instructive. Even though a form of cooperation existed between the EU and the three states prior to 1999, it was mostly based on financial and technical assistance. Indeed, after the South Caucasus countries achieved independence in 1991, the EU devoted over one billion euros of European Commission (EC)⁶ assistance to the region (EU-SC 2004).⁷

The relationship between the EU and the South Caucasus is legally conducted within the framework of the Partnership and Cooperation Agreements (PCAs).⁸ These Agreements between the South Caucasus states and the EU were signed on 22 April 1996 in Luxembourg and entered into force on 1 July 1999 (EU Parliament 2001).⁹ The EU strategy was based on bilateral PCAs that encourage regional cooperation through the TACIS and Transport Corridor Europe Caucasus Asia (TRACECA) projects. TACIS is the most comprehensive project related to the South Caucasus (Annex 1).

In 1999, the EU developed the Luxembourg Declaration (LD) to encourage a more intense and opportunist policy towards the South Caucasus. In truth, the PCAs had not worked as planned and the EU felt disturbed over Russia's 'divide and rule' policy towards the South Caucasus. Russia's policy contributed to the stalemate over ethnic conflicts in the region. As a result, the EU declared in the LD that the increasing instability in the South and North Caucasus states threatened the EU's security. The EU also stated that it would not provide assistance to support the status quo unless there was evidence of positive change (WEU-CM 1999).¹⁰ The EU also declared that they were ready to enhance their contribution to conflict prevention and post-conflict rehabilitation through the OSCE and UN and promote regional cooperation through the TACIS Program and the Regional Environmental Center for the Caucasus (TACIS 2002).

In addition to the EU's security concerns, as reflected in the Luxembourg Declaration, there are many reasons for the EU's policy changes in the region:

- 1 the EU is welcoming new members which would expand its boundaries close to the South Caucasus;
- 2 energy resources are important to the gas-hungry European states;
- 3 the potential energy market in the region is important for the European companies; and
- 4 the Caucasus states are transit routes for drugs and illegal goods, which indirectly affect the EU.

From the viewpoint of the South Caucasus countries, the EU is important for three reasons:

- 1 they all want to join the EU and be part of the balance of power in the region instead of being isolated or threatened by other powers in the region like Russia, Iran and Turkey;
- 2 the assistance from the EU is both financially and technically important, and they do not want to lose it; and
- 3 the EU is an important market for the South Caucasus countries.

Ultimately, the EU seems to be the path that will lead the South Caucasus states to a prosperous future from almost every perspective.

Interviews

Introduction

To learn first-hand about issues and obstacles to cooperation the senior author conducted interviews in the South Caucasus countries in July 2005. Interviews were conducted because they were consistent with the principles of IWRM, which extols stakeholder participation and eschews top-down approaches.

She interviewed 30 key water resource managers and/or officials to obtain information on their current situation, future needs and the political will in the region. Before the interview process began, lists of the key water resources experts from the three countries were obtained. These lists defined the universe from which the sample was obtained. The lists consisted of 20 experts in Armenia, 20 in Azerbaijan and 16 in Georgia. The selection of interviewees was based on availability and cannot be considered a random sample. In Armenia, 11 out of the 20 water experts were interviewed, in Azerbaijan 11 out of the 20 experts were interviewed and in Georgia eight out of 16 water experts were interviewed. Of these 30, 23 were male and seven female.

All of the interviewees were actively involved in at least some of the current ongoing projects for managing water and/or environmental resources in the South Caucasus countries. The interviewees work for governmental agencies; national and international non-governmental organizations; international/international organizations (IGOs); research institutes, and the private sector. There were some interviewees from NGOs and IGOs because of their active decision-making and participatory roles in water resources management in the South Caucasus (see Table 7.4).

Table 7.4 Backgrounds of the interviewees

	<i>AR</i>	<i>AZ</i>	<i>GE</i>	<i>Total</i>
Non-governmental organizations (NGOs)	1	2	1	4
Government agency	2	5	2	9
International organizations (IGOs)	5	2	4	11
Research institutes (RIs)	2	2	1	5
Private sector	1	0	0	1

Many of these organizations are also donor organizations that fund the majority of the current water resources projects in the South Caucasus. However, the results from this survey cannot be narrowed down to a particular group, organization and/or community; instead, these results are only indicative of the state of affairs in the South Caucasus.

The interviews and their analysis sought to identify mutual issues of concern and obstacles to cooperation vis-à-vis transboundary management of the Kura-Araks Basin. The survey questions included multiple choice and narrative questions. Interviews were conducted face-to-face and in a mostly informal environment. Even though the interview questions were the same, the actual interviews were, for the most part, more detailed and included commentaries. During the interviews, facilitation and mediation techniques that are part of Alternative Dispute Resolution (ADR) were used to elicit detailed responses from the interviewees. These techniques were used to prompt the interviewees to think more deeply about the issues and their solutions.

The survey included 43 questions. The answers were grouped and analysed by country. The results of the interviews were quantified in the following manner:¹¹

- 1 Compiled for each individual country in alphabetical order: Armenia (AR), Azerbaijan (AZ) and Georgia (GE).
- 2 Aggregated for the South Caucasus as a whole.
- 3 Interpreted as descriptive statistics.

'Significance value' and 'total percentage' were used as statistical values in order to interpret the results. A significance value (<0.05) meant that the null hypothesis was rejected, that there was no relation between the rows and columns of the table. In this case, the columns are the three countries and the rows are the responses to a question. If there was a statistically significant relationship, it means that there was a difference in the way the people in the three countries answered the question. If there was no relationship ($\rho > 0.05$), the authors concluded that the groups (countries) did not differ in the way they answered the question. When the chi-square was significant ($\rho < 0.05$) there were national differences in the way the interviewees answered the question.

Given that the survey questionnaire was originally in English and translated to the Armenian, Azerbaijani and Georgian languages, there may or may not be slight differences in the translated documents. Also, in Armenia and Georgia, translators were used as needed during the interviews. Some of the translators were not familiar with water resources terminology. Another obstacle was the translation of the survey answers from the Armenian, Azerbaijani and Georgian languages to English. Some of the answers were written in 'broken' English which was sometimes difficult to understand. In such cases, to avoid potential translation falsification of survey data, observational and re-contact methods were used.¹² Also, during the interviews questions and answers were often clari-

fied, restated and final statements repeated for better understanding (survey questions are shown in Annex 2).

Results

Interview results showed that 40 per cent of the respondents agreed that the governments of Armenia, Azerbaijan and Georgia are not ready to cooperate on matters concerning the Kura-Araks Basin given the current political situation. On the other hand, 23.3 per cent think they are ready to cooperate and another 23.3 per cent think they are already cooperating at the technical level.

It was clear that respondents are aware (86.7 per cent) of the importance of managing the basin in a sustainable manner with the same water resources management criteria, not only in their countries, but also in Turkey and Iran (see Vener 2006: Appendix V). The results also showed that 57 per cent of the respondents agreed on drawing from the criteria in the European Union Water Framework Directives (EU-WFD) since the three countries have a desire to become members of the EU in the future. Thus, as one of the initial steps towards the EU the three countries are already working on adapting their Water Codes to the EU-WFD.

Another result showed that 70 per cent of the respondents indicated that the best management for the basin is going to be as 'sub-basins in each country with regional cooperation with the other riparian countries'.

All the respondents agreed that their countries have the same water resource management problems, but different priorities and needs. Indeed, 86.2 per cent of the respondents agreed that basin problems in their country will affect other riparian countries. Moreover, 76.2 per cent think that this effect would be 'negative'. Each country has its own priorities stemming from their problems. As an example, it is very important for Azerbaijan to receive better quality and more water from Georgia. On the other hand, delivering better quality water to Azerbaijan is not Georgia's first priority. Instead of investing their money in treatment facilities Georgians prefer to replace equipment.

The overwhelming majority (96.7 per cent) of the experts indicated that it is important to obtain information/data from the other countries and 56.7 per cent said that they do not have enough information about each other. Experts also felt that it is difficult to obtain reliable data, not only from the other countries but also from within their own country. Most of them also emphasized that, regarding obtaining data, the main problem is the 'quality', not the 'quantity', in order to manage the Kura-Araks Basin in their countries. They also pointed out that all the countries needed more technical equipment, expertise and special projects to collect more reliable data in their countries. Another challenge for these countries was the lack of technical-level expertise and the lack of newer equipment and facilities.

On the other hand, the main obstacle to a Kura-Araks Basin water management agreement seems to be the Nagorno-Karabakh problem between Armenia and Azerbaijan. For this reason, the interviewees believed that it is difficult to think

about any international agreement, especially at the governmental level, before this issue is resolved. Nonetheless, when they were asked if other problems between the countries would create an obstacle for a possible water management agreement, the results showed that the interviewees (86.7 per cent) think positively about the situation, i.e. there may be obstacles but they could be resolved. Almost the same suggestions were made about how to solve the obstacles. For example, instead of governmental-level water management, they suggested creating technical-level umbrella projects led by donor or international organizations. In any case, technical-level experts from Armenia, Azerbaijan and Georgia have been working and are willing to work together without any political concerns. Thus, they think that technical-level cooperation projects will lead to an international agreement when the time is right. Indeed, examples like the Nile Basin Initiative show that water can be a part of peace process rather than a cause for a war.

Even though some of the interviewees pointed out that this would be a difficult task considering the conflicts (like Nagorno-Karabakh etc.) in the region,¹³ most of the interviewees (93.3 per cent) agreed that water resources management cooperation among Armenia, Azerbaijan and Georgia could lead to peace and improved welfare in the region. They also underlined that under these circumstances only a neutral body can play a leadership role and initiate any cooperation between the countries.

When asked to choose the most suitable option for managing water resources for the Kura-Araks Basin, 63.3 per cent of the interviewees chose the option 'manage separately but with the same criteria in each country'. Most of the respondents indicated that the management criteria should be drawn up by the EU-WFD. A high percentage (83.3 per cent) of the respondents felt it is important to have a headquarters for the coordination of all the water-related projects with experts drawn from each country and from the IGOs and NGOs. Each country would then also have its own 'Country Division'.

While 64.3 per cent of the respondents thought that the headquarters could be located in Georgia, another 10.7 per cent of the respondents answered that they would rather choose a neutral country as a location for the headquarters. Yet another 14.3 per cent suggested mobile headquarters that changed location every other year or so. They thought that would be fair for each country.

When it came to involvement of the IGOs and other countries in the South Caucasus, it was very interesting that even though respondents were very positive about the involvement of the other countries and IGOs, they were partly confused by these chaotic efforts and projects. There are different reasons for this confusion. The projects have different donors with different expectations and are answering different questions; thus, there is little incentive for donors to cooperate. Table 7.5 summarizes what the interviewees felt were the main obstacles to transboundary management of the Kura-Araks Basin and Table 7.6 lists areas of mutual concern for Armenia, Azerbaijan and Georgia.

Table 7.5 Main obstacles to transboundary management of the Kura-Araks Basin

<i>Main obstacles</i>		
Socioeconomic	Lack of trust among the countries	
	Economic collapse	
	Historical hostile feelings	
	IDP and refugees	
	Immigration	
	Narcotics trafficking	
	Poverty	
	Lack of funding	
	Political	Unstable political situations
		Lack of democracy (democratic polity)
Bureaucratic processes		
Corruption		
Ethnic conflicts: Nagorno-Karabakh, Javakheti etc.		
Nationalism, separatism		
Coups d'etat, insurrections, assassination attempts		
Infrastructure	Regional and global interference	
	Lack of defined law structure in the South Caucasian states	
	No transboundary, bilateral, or multilateral agreements among the countries	
	Lack of cooperation and communication at the national, international, inter-organizational levels	
	Lack of organization to coordinate water-related projects	
	None and/or poor communication between the countries, donors, organizations, and projects	
	Outdated or lack of facilities and equipment	
<i>Country-based obstacles</i>		
Armenia	Landlocked and isolated	
	No solutions on Nagorno-Karabakh and Javakheti	
	Lack of natural resources	
	Water pollution	
	Problems associated with Lake Sevan	
Azerbaijan	Water shortage and pollution	
	Difficult to export its oil without Georgia, which connects it to Turkey and the West via the BTC (Baku-Tbilisi-Ceyhan) pipeline	
Georgia	Partially reliant on Azerbaijan's oil	
	Lack of funding and resources	

Concluding remarks

Perhaps the most important outcome of this study was that almost all the respondents agreed upon joint management of the Kura-Araks Basin with Integrated Water Resources Management principles. Considering the ongoing obstacles in the region, respondents overwhelmingly agreed that Kura-Araks Basin must be sustainably managed. However, they also agreed that the current political situation (i.e. Nagorno-Karabakh) precludes an inter-state agreement to

Table 7.6 Mutual issues/concerns in Armenia, Azerbaijan, and Georgia

<i>Mutual issues/concerns</i>	
Socioeconomic	Willingness to cooperate in solving water-related issues Support for transboundary water resource management Establishment of the ancient 'Silk Road' Current and potential available funding, aid and investment opportunities Harmonization with the EU directives Formerly part of the Soviet Union
Political	Regional and global interest Creation of a bridge between Turkey and the Black Sea, to the Caspian Sea, and Central Asia Members of the Council of Europe (Georgia since 1999; Azerbaijan and Armenia since 2001) Desire to join the European Union
Infrastructure	Funding opportunities and promises by the World Bank and other international institutions, contingent upon peace settlement, to help with economic development Ongoing projects creating a socioeconomic and political basis for cooperation between the countries Ongoing mediation efforts by Minsk Group to establish cooperation and trust
<i>Country-based common interests/concerns</i>	
Armenia	Joined Georgia in signing the charter for establishing the Regional Environmental Center (REC) in the Caucasus, in Tbilisi, Georgia; was supported by the United States and the EU
Azerbaijan	Azerbaijan and Georgia share a similar outlook on the world and on relations with their neighbours Close relationship with Georgia NATO Partner, member of GUUAM (Georgia, Ukraine, Uzbekistan, Azerbaijan, Moldova alliance) and ally of Turkey Significant reserves of oil and gas
Georgia	Joined Armenia in signing the charter for establishing the Regional Environmental Center (REC) in the Caucasus, in Tbilisi, Georgia; the REC was supported by the EU and the United States NATO Partner, member of the GUUAM (Georgia, Ukraine, Uzbekistan, Azerbaijan, Moldova) alliance, and ally of Turkey Willing to sign an agreement related to Javakheti

manage the Kura-Araks Basin jointly. Interviewees also pointed out that only a neutral third party can solve this problem.

Another major conclusion was that there is little coordination or cooperation among the various projects and donor organizations in the Kura-Araks Basin, a source of frustration which was expressed in our interviews. Moreover it is also difficult to obtain funding for a project unless it is part of a donor organization's agenda. Local people have little say in what should be done.

The respondents also noted that the results of the different projects related to water resources management (implemented by the different international donor organizations) are not well understood by the local people and, if so, they often

do not have the means to implement the recommendations. A related conclusion is that, within any single country, there is very little coordination between donor-funded projects and the country's agencies.

One of the most important conclusions was that there is a great need for 'bottom-up' projects, as opposed to the 'top-down' approaches employed at present. Local involvement in these projects was deemed mostly insufficient.

The interviewees agreed on the main issues of the basin/region and signalled that they are willing to work together to manage the water resources of Kura-Araks Basin. However, mainly because of the Nagorno-Karabakh issue, the countries are not ready to sign any type of agreement; nonetheless, they are willing to find a solution on their own terms. The main obstacle to peace seems to be a lack of leadership and political will in the region regarding this frozen conflict.

Water may provide the means to obtain peace in the region. Regional cooperation regarding the water resources of the Kura-Araks Basin may not only set the framework for comprehensive management of water resources in the South Caucasus but also may lead to a peaceful environment in the region. Technical experts from all three countries are already working together on joint projects. Such cooperation may diffuse upwards into higher levels of government.

The interview results showed that a third party, possibly an international organization such as the World Bank, NATO, OSCE, EU or UN, should be taking the leadership role in this initiative. Leadership and mediation are the key issues to creating this kind of initiative since the countries are willing to participate. 'Shared vision' or mediated modelling (van den Belt 2004) may be appropriate.

As a matter of fact, in 2007, USAID initiated the USAID South Caucasus Water Program in the region through PC Consulting Group. The main objective of the programme is to foster cooperation:

Successful management of the shared water resources of the South Caucasus is critical to the social, economic, and ecological prosperity of Armenia, Azerbaijan, and Georgia and an essential precursor to regional peace and cooperation. Bridge-building activities initiated between these nations will be further expanded and lead to synergies between a broader numbers of operational units (water, forestry, pollution abatement, agriculture and protected areas).

(USAID 2008)

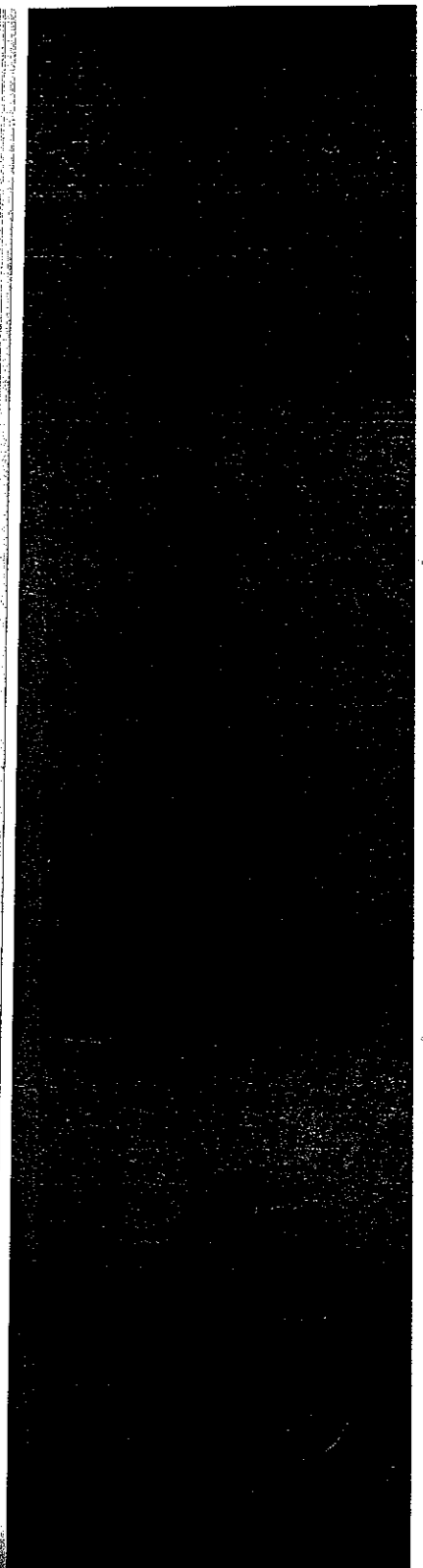
According to the programme's website, in a year it has made progress in moving the agenda of regional cooperation at the technical level thus promoting peace and stability in the region (see USAID 2008). Unfortunately, this project was abruptly terminated in early 2008 about nine months earlier than it should have been.

It is important to understand that even though ongoing disputes exist among these countries, they are accustomed to working together and have a similar legacy since they were all part of the former Soviet Union, despite their religious, ethnic, linguistic and cultural differences. Indeed, during the Soviet Union era only a few decades ago, these countries were sharing the Kura-Araks Basin along with their other resources.

Annex 1 Selected projects in the South Caucasus (as of May 2006)

Title and donor	Lead actor	Time frame	Funding	Description	Main objectives	Some other related projects and/or organizations
The EU TACIS' Joint River Management Program (JRMP) Funded by the European Union	The EU	2000-2006	Armenia ~ €78.9 million Between 1991 to 2001 Azerbaijan €72.5 million Between 1992 to 2001 Georgia €84 million Between 1992 to 2002 Total for three Countries €235.4 million	To develop a staged approach to the implementation of the EU Framework Directive in the NIS using the Kura Basin as a pilot project. By a Strategy papers b Multiannual indicative programs c Annual and biannual action programs	<ul style="list-style-type: none"> Bilateral agreement Cooperation between the countries Pilot projects on small-scaled solution in water supply and sanitation Training Programs Water quality and quantity projects and links Ecological monitoring Environmental Auditing 	<ul style="list-style-type: none"> UNDP/GEF - Kura Basin Water Management USAID-Water Management in the South Caucasus WB Irrigation and Drainage projects German Project on Pollution prevention and early warning
South Caucasus Water Management Project Funded by the United States Agency for International Development (USAID)	DAI (USA) (Contractor: Development Alternatives Inc.-DAI); since 2006	2000-2005	\$4,000,000	To increase the dialogue for sustainable water management in the South Caucasus countries of Armenia, Azerbaijan and Georgia. By a Increased cooperation for the management of water resources, b Integrated river basin planning in two bi-lateral settings, and c Assessment of legal issues for water management in the region	<ul style="list-style-type: none"> Monitor water quantity and quality, Develop a regional framework for a geographic information system (GIS), Promote a data exchange program to facilitate water management, Initiate a process for building capacity for integrated river basin planning, Develop a legal framework for water resources management, and Implement an effective project management system. 	<ul style="list-style-type: none"> EU TACIS JRMP, EU TACIS NEAP, EU TACIS Caspian Environmental Program, OSCE Environmental Program, USAID, OSCE, UNDP, IBERD, NATO, ARD, etc
Synergy (USAID)	Eurasia Foundation	1998-	\$400,000	Create more liberal and transparent system in the region's telecommunication sector. By a Perfection of existing legislation b Conducting a social survey	<ul style="list-style-type: none"> Development of Telecommunication Sector in the South Caucasus. 	<ul style="list-style-type: none"> Liberty Institute SIGMA - Research Center for Development and International Collaboration Internet Society (ISOC AM)

<i>Title and donor</i>	<i>Lead actor</i>	<i>Time frame</i>	<i>Funding</i>	<i>Description</i>	<i>Main objectives</i>	<i>Some other related projects and/or organizations</i>
Regional Environmental Center (REC) (EU-TACIS and USEPA ³) Funded by the EU. Key donor is USA. Other financial and technical assistance has been provided by Denmark, Germany and Switzerland.	REC	Chartered 1999		Capacity building and development of regional environmental cooperation. By Building the civil society through promotion of public participation in the decision-making process.	<ul style="list-style-type: none"> Increasing information exchange between NGOs, governments, the scientific community, and the private sector. Developing compatible environmental policy and strategies among countries; and, raising awareness about the environment. 	<ul style="list-style-type: none"> EU TACIS UNDP/GEF - Kura Basin Water Management USAID-Water Management in the South Caucasus
South Caucasus Highland and Mountain Development Project (FAD)	Center for Highland Development	-	\$49,000,000	Rural infrastructure rehabilitation, including irrigation.		<ul style="list-style-type: none"> UNDP/GEF - Kura Basin Water Management WB Irrigation and Drainage projects TRASEKA projects
Support for South Caucasus Highland and Mountain Development Project (Swiss Agency for Development and Cooperation-SDC) Regional Partnership for Environmental Security through Prevention of Transboundary Pollution to the Kura-Araks Rivers (UNDP)	SDC	2000-	Total Cost \$10 million Azerbaijan \$9.23 million Georgia	Possible grant support IFAD project		<ul style="list-style-type: none"> UNDP/GEF - Kura Basin Water Management WB Irrigation and Drainage projects TRASEKA projects NATO, TACIS, USAID, REC etc.
Arid and Semi-Arid Ecosystem Conservation in the Caucasus (CASEC) GEF and UNDP	UNDP/GEF	2002-2004	\$4,700,000	Develop intuitional and legal structure for equitable use and shared benefit of common river basin resources. By MOUs, workshop, development of regional communication and information systems.	<ul style="list-style-type: none"> Reduce degradation of the Kura-Araks river basin. Development of better intuitional structure. 	<ul style="list-style-type: none"> The EU TACIS, USAID-DAI, UNDP, REC, WB.
Arid and Semi-Arid Ecosystem Conservation in the Caucasus (CASEC) GEF and UNDP	UNDP/GEF	1999-	\$750,000	Protection of biodiversity in the arid and semi-arid zones in the area. By Protection activities and coordination of these activities with neighboring countries sharing sections of the ecosystem	<ul style="list-style-type: none"> Local land user's participation in the design of alternative land uses, and their integration in its implementation. 	<ul style="list-style-type: none"> The EU TACIS, GEF, USAID-DAI, UNDP, REC, WB.



Title and donor	Lead actor	Time frame	Funding	Description	Main objectives	Some other related projects and/or organizations
Caucasus Environmental NGO Network (CENN) Supported by USAID through the Environmental Information Systems and Networking Project (EISN).	DevTch Systems/Georgian Center for the Conservation of Wildlife	March 2000-	- ⁴	Promotion of regional environmental collaboration in the Caucasus by information exchange By Monthly bulletin Creation of Web Databases on Nature Resources and Environment Related Issues of the Caucasus Region Regional workshops	<ul style="list-style-type: none"> Capacity building of environmental NGOs in the region; Facilitation and promotion of joint activities in the Caucasus; Improvement of the effectiveness of solutions of environmental problems; Establishment and maintenance of easily accessible environmental information space, and Coordination of efforts in the development of compatible environmental strategies and policies in Caucasus countries. 	<ul style="list-style-type: none"> Environmental Survival Union (ESU), Armenia Ecological Stability (ECOS), Azerbaijan Others: TACIS, GEF, REC, USAID
Peace Zone Project (OSCE and Helsinki Citizens' Assembly (hCa))	OSCE ⁵	Planned	-	A project for a Peace Zone in the 'Reb Bridge' area where Armenia, Azerbaijan and Georgia meet entailing several joint projects, including water and agriculture.	-	TACIS, NATO, USAID, REC, CENN etc.
South Caucasus River Monitoring (SR-River Monitoring) Funded by NATO Science for Peace Programme and co-funded by OSCE	OSCE Projects Partners and Participants: National Academy of Sciences (AR); Tbilisi State University (GE); National Academy of Sciences (AZ); University Of New Mexico (UNM), USA; Oregon State University (USA); University of Antwerp, Belgium; Norwegian University of Science and Technology, Norway.	2002-2008	Approx. €1,000,000	To establish the social and technical infrastructure for an international, cooperative, transboundary river water quality and quantity monitoring, data sharing and watershed management system among the Republics of Armenia, Azerbaijan and Georgia.	<ul style="list-style-type: none"> Increase technical capabilities (monitoring, analytical and communications) among partner countries Cooperatively establish standard sampling, analysis and data management techniques for all partner countries Establish data, GIS and model sharing system accessible to all partners via WWW Establish social framework (i.e., annual international meetings) for whole watershed management. 	The EU TACIS, USAID, REC, CENN etc.

Sources: JRMP2002; REC; IFAD; UNDP, CENN, OSCE, NATO Science for Peace Web Portal; TACIS, USAID and DAI Web Portal.

Notes

- 1 Technical Assistance: Commonwealth of Independent Countries (TACIS).
- 2 Cross border energy initiative funded by TACIS.
- 3 United States Environmental Protection Agency (USEPA).
- 4 Lack of information.
- 5 Organization for Security and Cooperation in Europe (OSCE).

Annex 2 Survey questions

- 1 In your country, what is the main problem(s) associated with your trans-boundary water resources. (You can choose more than one)
- Organizational management related issues
 - Legal and regulatory problems
 - Technical problems
 - Water resources management policies
 - Lack of information, data, knowledge, expertise
 - Water contamination
 - Ecological problems
 - There are no problems
 - Other. Please specify

2 If you chose more than one option please rank them on their importance.

- 3 Has your country and/or other non-governmental organization(s) made efforts to fix the above mentioned problem(s)?

- Yes
- No
- Other country/countries/organization(s) are handling these issues.

Please indicate the organization(s)

- 4 Do you think, other riparian countries in the Kura-Araks Basin (KAB) have similar water resources and/or management related problems?

- Yes
- No
- I have no opinion

If you answered 'yes' please explain why.

- 5 What do you think is the main transboundary resource problem(s) in the other riparian countries? If you choose more than one please rank them based on their importance.

Please indicate the country

- Organizational management related issues
- Legal and regulatory problems
- Technical problems
- Water resources management policies
- Lack of information, data, knowledge, and expertise
- Water contamination
- Ecological problems
- There are no problems
- Other

Please indicate the country

- Organizational management related issues
- Legal and regulatory problems
- Technical problems
- Water resources management policies
- Lack of information, data, knowledge, and expertise
- Water contamination
- Ecological problems
- There are no problems
- Other

- 6 Do you think basin problems in other riparian countries (that you specified in question 4) are going to affect the Kura-Araks Basin in your country?

- Yes
- No
- I am not sure
- Other

- 7 What do you think this effect would be?

- Negative
- Positive
- No effect at all
- I am not sure
- Other

- 8 In your country, what do you think is the most important issue that has to be addressed immediately? Why?

- 9 What do you think about the involvement of the international and inter-governmental organizations in the South Caucasus such as the European Union (EU), the Organization for Security and Co-operation in Europe (OSCE), United Nations (UN), United Nations Development Program (UNDP), the World Bank (WB), North Atlantic Treaty Organization (NATO), the United States Agency for International Development (USAID), and others? You can choose more than one option but please explain.

- Constructive
- Distractive
- Helpful
- Not helpful at all
- Leading
- Confusing
- Notes and Comments for Question 9.

- 10 Do you think your country has enough information/data about the Kura-Araks Basin in other riparian countries?

- Yes
- No
- Other

- 11 If you answered 'yes' to Question 10, please indicate whether the information/data are satisfactory?

- Yes
- No
- I am not sure
- Other

- 12 Do you think it is important to obtain information about the Kura-Araks Basin in other countries?
- Yes
 - No
 - I am not sure
 - Other
- 13 If you answered 'yes' to Question 12, please indicate why it is important.
- 14 Do you think other countries have enough information/data about the Kura-Araks Basin in your country?
- Yes
 - No
 - I am not sure
 - Other
- 15 Do you think it is important for other countries to obtain information about the Kura-Araks Basin in your country?
- Yes
 - No
 - Other
- 16 How do you think that Kura-Araks Basin should be managed geographically?
- As one basin in three countries
 - Separately, as sub-basins in each country (Armenia, Azerbaijan, Georgia)
 - Sub-basins in each country with cooperation
 - Other
- 17 How do you think that the Kura-Araks Basin should be managed geopolitically?
- An international agreement signed by Armenia, Azerbaijan and Georgia.
 - Managed separately in Armenia, Azerbaijan and Georgia but within the same European Union Standards
 - Managed separately in Armenia, Azerbaijan and Georgia but within the United Nations Convention on Transboundary Water Resources (1997) Convention
 - Managed separately in Armenia, Azerbaijan and Georgia but with the same water resources management criteria in Armenia, Azerbaijan and Georgia.
 - Shared vision and an initiation agreement among Armenia, Azerbaijan and Georgia.
 - Other
Please justify your answer.
- 18 Do you think Armenia, Azerbaijan and Georgia are ready to cooperate regarding transboundary water management?
- Yes
 - No
 - I am not sure
 - Other
- 19 What is your country's point of view on cooperation regarding transboundary waters? Please explain.
- 20 Do you think that it is important to manage the Kura-Araks Basin in Armenia, Azerbaijan and Georgia using the same water resources management criteria in all three countries?
- Yes
 - No
 - I am not sure
 - Other
- 21 Do you think the other two countries are ready to cooperate with your country regarding transboundary water management?
- Yes
 - No
 - I am not sure
 - Other
- 22 Assume that there is a cooperation agreement among Armenia, Azerbaijan and Georgia. Which one of the following options is more suitable for management of the Kura-Araks Basin in Armenia, Azerbaijan and Georgia?
- A single headquarters for coordination of all the related projects with experts from each of the countries and the non-governmental organizations. There would be divisions in each country.
 - There would be divisions in each country and coordination meetings among the stakeholders.
 - I cannot assume that experts from, Armenia, Azerbaijan and Georgia can work together under the same roof.
 - Other
- 23 Do you think that other problems among the countries (which are not related to water resources management) will create a problem/obstacle for a possible water resources management agreement?
- Yes, there can be problems. That is why cooperative management with an agreement will not happen in the South Caucasus.
 - Not a problem. Water issues are separated from the other problems between the countries.
 - Yes, it is a problem; HOWEVER, it can be worked out.
 - Other

- 24 If there is a water resources cooperation agreement among Armenia, Azerbaijan and Georgia, do you think there should be a headquarters in charge of coordination?
- Coordinate, operate and monitor related projects in Armenia, Azerbaijan and Georgia.
 - It is not necessary to have a headquarters.
 - It is necessary to have a headquarters.
 - Other
- 25 If you thought there should be a headquarters, where do you think this headquarters should be located?
- 26 As a water resources manager, are you familiar with the water resources management and development related *projects* funded/organized by international and non-governmental organizations such as the European Union's TACIS; NATO/OSCE's South Caucasus River Monitoring Project, World Bank, USAID and others?
- Yes
 - No
 - Some of them
 - I have no opinion
 - Other
- 27 Do you think these projects are helpful?
- Yes
 - No
 - Some of them
 - I have no opinion
 - Other
- 28 Do you think that these projects overlap and/or conflict with each other?
- Yes
 - No
 - Some of them
 - I have no opinion
 - Other
- 29 Do you think there is coordination among the aforementioned (in Q. 26) projects?
- Yes
 - No
 - Some of them
 - I have no opinion
 - Other
- 30 If you answered 'no' please explain.
- 31 Do you think these projects should be combined and managed in an integrated and sustainable manner by the countries of Armenia, Azerbaijan and Georgia?
- Yes
 - No
 - Some of them
 - I have no opinion
 - Other
- 32 As a water resources manager, are you familiar with the international non-governmental organizations such as the EU, OSCE, NATO, UN, UNDP, WB etc. and their efforts regarding the South Caucasus Region?
- Yes
 - No
 - Some of them
 - I have no opinion
 - Other
- 33 Do you think that the aforementioned mentioned non-governmental organizations have cooperated with your country?
- Yes
 - No
 - Some of them
 - I have no opinion
 - Other
- 34 Do you think there is coordination among the aforementioned organizations?
- Yes
 - No
 - Some of them
 - I have no opinion
 - Other
- 35 Do you think there is coordination among the ongoing projects?
- Yes
 - No
 - Some of them
 - I have no opinion
 - Other
- 36 Were you and/or your organization involved with these projects at any stage?
- Yes

- b No
c Some of them
d I have no opinion
e Other
- 37 If you answered 'yes', please indicate if this involvement was satisfactory to you?
a Yes
b No
c Other
- 38 Compared to your country, do you think that the other countries were more involved in these efforts and projects?
a Yes
b No
c Other
- 39 Are there any topics or initiatives that Armenia, Azerbaijan and Georgia can work together on other than water issues?
a Yes
b No
c Maybe
d Other
- 40 Do you think cooperation among Armenia, Azerbaijan and Georgia could bring these countries together and foster an effective and fruitful communication among them?
a Yes
b No
c Maybe
d Other
- 41 Are you aware of the Organization for Security and Co-operation in Europe (OSCE) and its mission in the South Caucasus?
a Yes
b No
c Other
- 42 Do you think that conflict settlement negotiations among Armenia, Azerbaijan and Georgia have been helpful?
a Yes
b No
c I have no opinion
d Other

- 43 Do you think that mediation among Armenia, Azerbaijan and Georgia would be helpful towards reaching some sort of water resources management related agreement/initiation?
a Yes
b No
c I have no opinion
d Other

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Notes

- 1 It does represent the higher level of development and GDP/Capita of Azerbaijan, in comparison with the Armenia and Georgia.
- 2 IWRM Concept: Along with the Dublin Principles (1992) and Agenda 21 (1992), IWRM has developed into the leading concept of water management. It implies a multi-layered integration of management, spanning different resources, sectors, management principles and normative guidelines, in which existing approaches are in part very distinct from one another and dependent on the natural/environmental, political and socio-cultural conditions of the respective region. By means of the IWRM concept the international development cooperation in the water sector expects a sustainable improvement for the situation in different river basins as well as to utilize the opportunity to advance the goal formulated at the Millennium Summit of the United Nations in New York (2000) and at the World Summit for Sustainable Development

- in Johannesburg (2002) of reducing by a half the number of people without access to clean drinking water and without basic sanitation services by 2015 (Institute for Social-Ecological Research (ISOE): www.isoe.de).
- 3 The Nile Basin Initiative (NBI) is a partnership initiated and led by the riparian states of the Nile River through the Council of Ministers of Water Affairs of the Nile Basin states (Nile Council of Ministers, or Nile COM). The NBI seeks to develop the river in a cooperative manner, share substantial socioeconomic benefits, and promote regional peace and security (see www.nilebasin.org).
 - 4 The seminar was organized by the OSCE regional offices in the South Caucasus with the assistance of Development Alternatives, Inc. (DAI) project offices in Armenia, Azerbaijan and Georgia. The funding was provided by the OSCE and USAID with additional support from the Carnegie Corporation of New York.
 - 5 Internally displaced persons (IDP) are:

persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border.

(Guiding Principles on Internal Displacement, Introduction, para. 2. www.internal-displacement.org)
 - 6 The EC's main job is to initiate new policy measures and also act as the guardian of the EU treaties to ensure that EU legislation is applied correctly by the member states.
 - 7 European Union Security Council (EU-SC), 2004, The Gahrton Report.
 - 8 PCAs are legal frameworks, based on the respect of democratic principles and human rights that set out the political, economic and trade relationship between the EU and its partner countries. Each PCA is a ten-year bilateral treaty signed and ratified by the EU and the individual state.
 - 9 EU Parliament: Information Note on Delegation for Relations with The South Caucasian Republics: Armenia, Azerbaijan and Georgia 2001.
 - 10 Western European Union Council of Ministers (WEU-CM).
 - 11 Complete information on the questions and results, including statistical analyses, are in Vener (2006), see http://water.oregonstate.edu/projects/Vener_2006.pdf.
 - 12 Usually in the observational method a third party sees or hears interactions between interviewers and respondents. In this study, the interviewer also acted as the observer between the translator and the respondent. Monitoring alone is generally sufficient for detection and deterrence of falsification (ASA 2005). Common modes of contacting the interviewees included mail, telephone and face-to-face meetings. In this study, e-mail was used to clarify the responses.
 - 13 There were no 'direct questions' about the ongoing conflicts in the survey. However, some interviewees underlined their concerns [at the comments unit] in the comments section and/or in the 'other' option of the questions.

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8 'Have your cake and eat it too'

Agenda-setting in Central Asian transboundary rivers

Kai Wegerich

Introduction

After the disintegration of the Soviet Union in 1991, managing the water of the rivers crossing the boundaries of the various countries in Central Asia was in danger. The importance of basin management had already been identified during the Soviet era. After gaining independence, the five Central Asian republics of Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan created the Interstate Commission for Water Coordination (ICWC) in 1992. The duty of the ICWC is to regulate and control the use of transboundary water resources of the Amu Darya and the Syr Darya rivers. Under the umbrella of the ICWC there are two executive basin organizations (*Basseinovoye Vodnoye Obyedineniye*: BVOs), the Amu Darya BVO and the Syr Darya BVO, as well as a research and project planning organization, and the Scientific Information Centre (SIC). Both the BVOs and the SIC are located in Uzbekistan.

The role of the SIC and its director are of particular importance. Hutchens (1998: 5) explains that the SIC 'provides the scientific foundations for dealing with water management problems, water resources management strategy, and long-term planning of transboundary water resources use in the basin'. The SIC has a monopoly on data about water resources and, through its webpage and international publications, influences, if not determines, the knowledge base for water resources in Central Asia.

Currently, the SIC promotes three general principles for basin management:

- All countries have the right to equitable and reasonable water use with regard to previous use.
- In the execution of water management, 'do no harm' to other players.
- Follow the 'polluter pays' principle (Dukhovny n.d.: 17).

Even though the ICWC and SIC emphasize their objectivity, and by their nature they should be objective, there is a difference between the problems in the various basins as identified by the wider discourse on the basins and as they are identified by the ICWC and SIC. To highlight these differences, we reviewed ICWC reports, protocols of meetings and interstate agreements, and compared