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## **Conflict, Cooperation, and the New ‘Great Game’ in the Kura-Araks Basin of the South Caucasus**

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### **ABSTRACT**

The Kura-Araks river basin, the largest in the South Caucasus, is an international catchment with five countries – Armenia, Azerbaijan, Georgia, Iran, and Turkey – comprising its watershed. About 65% of the basin area (total = 188,200 km<sup>2</sup>) falls within the former Soviet republics of Armenia, Azerbaijan, and Georgia, who share many similar circumstances: location in a politically unstable region; bureaucratic and structural issues; and more importantly, ongoing ethnic and related conflicts. Despite these obstacles, the countries recognize that they depend greatly on the basin, whose waters they must share. No water treaties exist among the former Soviet republics, so cooperation and collaboration among the three countries in the Kura-Araks Basin are essential to the stability of the region. To that end, the North Atlantic Treaty Organization (NATO) – Organization for Security and Cooperation in Europe (OSCE) South Caucasus River Monitoring project measures surface water quality and quantity in the Kura-Araks Basin in a transparent, collaborative fashion, promoting peace in a region critical to the West’s security.

The strategic significance of the region has increased in recent years due to the Caspian Basin hydrocarbon resources that are essential to the West. A resurgent, wealthy Russia and the West, engaged in a new ‘Great Game’, are jockeying for position in this all-important region; water resources play an increasing role in this geopolitical realm. Cooperation among the three riparians and stability in the region thus become very important to the West.

To assess obstacles to cooperation and identify common objectives, we interviewed 30 key water resource managers and officials in July 2005. These interviews helped us to understand each country’s current situation and future needs with respect to water in the South Caucasus. The main obstacle to cooperation is the lack of trust among the three countries due to the current political situation, especially the Nagorno-Karabakh situation. However, most individual interviewees (93%), regardless of their country of origin, were very positive about cooperating as individuals on transboundary water management; this illustrates the contrast between government policies and individuals’ opinions. The fact that individuals are willing to collaborate on water resource studies may generate an “upward diffusion” of trust to higher levels of government, perhaps enabling the South Caucasus countries to realize peace and security, and ensure the uninterrupted flow of oil and gas to the West.

### **1 INTRODUCTION**

The South Caucasus region consists of the countries of Georgia, Armenia, 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 1). The three countries have a total population of about 16 million, with Azerbaijan comprising almost 50% of the total (Table 1).

The Kura-Araks (sometimes spelled “Aras”) Basin comprises the major river system in the South Caucasus. Both rivers rise in Turkey and flow into the Caspian Sea after joining in Azerbaijan. Of the total basin area of about 188,200 km<sup>2</sup>, almost two-thirds, or about 122,200 km<sup>2</sup>, 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 quantity problems. In general terms, Georgia has an oversupply of water, Armenia has some shortages based on 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% 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).

## **2 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 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 kilometers (km) and it has an average discharge of 575 million cubic meters 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 1 shows the distribution of watershed area by country; Table 2 shows land use. Table 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% of its drinking water from the Kura-Araks rivers. Armenia has a surface water shortage but has a large fresh groundwater stock that it uses for drinking water (TACIS 2003).

Water is used for municipal, industrial, agricultural, irrigation, fishery, recreation, and transportation purposes. The main water use is agriculture, followed by industry and households uses. Table 3 shows that Azerbaijan has the most arable land followed by Georgia and Armenia and that even though Azerbaijan has the most arable land it is the one that faces a water deficit.

**Table 1. Watershed area of the Kura and Araks Rivers in each country of the South Caucasus (Vener 2006).**

Country	Population (millions) (July 2003 est.)	Kura River		Araks River	
		% of total basin area	Area (km <sup>2</sup> )	% of total basin area	Area (km <sup>2</sup> )
Armenia	3.3	15.79	29,741	22	22,090
Azerbaijan	7.8	30.70	57,800	18	18,000
Georgia	4.9	18.43	34,700	-	-
Turkey & Iran	-	35.06	66,000	60	61,000
<b>Total</b>	16	100.00	188,241	100.00	101,090

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

**Table 2. Land use in the Kura-Araks basin (km<sup>2</sup>) (Vener 2006).**

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)

**Table 3. Kura-Araks basin average annual water balance (km<sup>3</sup>) (Vener 2006).**

	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)

Source: TACIS (2003). Parentheses indicate depletion.

Azerbaijan withdraws 57.9% of its actual renewable water resources, Armenia withdraws 28.2% of its actual renewable water, whereas Georgia withdraws only 5.2% of its actual renewable water. However, as a water resources-rich country Georgia's withdrawal per capita (cubic m) is 635 m<sup>3</sup> while Azerbaijan's is 2,151 m<sup>3</sup>, and Armenia's is 784 m<sup>3</sup>. It is evident that per capita water withdrawal is disproportionate to water availability among the three countries (Vener 2006, Table 4).

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% of Armenia's, 60% of Georgia's, and 50% of Azerbaijan's.

### 3 WATER PROJECTS IN THE SOUTH CAUCASUS

There are many constructive 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 Cooperation in Europe (OSCE), the Global Environmental Facility (GEF), and many other entities with different projects, programs, funds, and grants (see Vener 2006, Appendix II).

Major regional projects related to transboundary water resource management are: the EU TACIS *Joint River Management Project* (TACIS JRMP) in cooperation with UNDP, the NATO-OSCE *South Caucasus River Monitoring Project* and 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.

#### **4 HYDROPOLITICS**

During the Soviet era, each country was within the USSR sphere 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 water resources management regulations nor water codes. However, each country has adopted water codes within the last 15 years: 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 no uniform control and/or management system for the rivers and, in the post-Soviet period, no water quality monitoring by the riparian countries until 2003.

While the three countries are willing to cooperate on water-related issues, they have not resolved 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% of Azerbaijan. 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 (USCIA 2004). A cease-fire between Armenia and Azerbaijan was signed in May 1994 and has held without major violations ever since. The "Minsk Group," part of 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% 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. Armenia supports demands for local autonomy of the region.

## 5 INTERVIEWS

To learn first-hand about issues and obstacles to cooperation the senior author conducted interviews in the South Caucasus countries in July 2005. She interviewed 30 key water resource managers and/or officials to obtain information about 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 8 out of 16 water experts were interviewed. Of these 30, 23 were male and 7 female.

All of the interviewees were actively involved in at least some of the current ongoing projects regarding water and/or environmental resources management in the South Caucasus countries. The interviewees work for governmental organizations (GOs); national and international non-governmental organizations (NGOs); international/inter-governmental organizations (IGOs); research institutes, and the private sector. There were some interviewees from NGOs and IGOs because of their active decision-making and participation role in water resources management in the South Caucasus (see Table 4).

**Table 4. Backgrounds of the interviewees.**

	<b>AR</b>	<b>AZ</b>	<b>GE</b>	<b>Total</b>
<b>Non-governmental Organizations (NGOs)</b>	1	2	1	4
<b>Government Agency</b>	2	5	2	9
<b>International Org. (IGOs)</b>	5	2	4	11
<b>Research Institutes (RIs)</b>	2	2	1	5
<b>Private Sector</b>	1	0	0	1

The interviews and their analysis sought to identify mutual issues/concerns and obstacles to cooperation vis-a-vis transboundary management of the Kura-Araks Basin. Interviews were conducted face-to-face and in an informal environment. Although the interview questions were the same, the interviews were, for the most part, more detailed and included commentaries. During the interviews, facilitation and mediation techniques 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.

Complete information on the questions and results, including statistical analyses, are in Vener (2006), which can be downloaded at [water.oregonstate.edu/projects/caucasus.htm](http://water.oregonstate.edu/projects/caucasus.htm)

## 6 RESULTS

Interview results showed that 40% 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% think

they are ready to cooperate and another 23% think they are already cooperating at the technical level. It was clear that they are aware (87%) 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% of the respondents agreed on drawing from the criteria in the European Union Water Framework Directives (EU-WFD) since the three countries are willing to be a part of the EU in the future. Most importantly, the three countries are already working on adapting their Water Codes to those of the EU-WFD.

Seventy percent of the respondents indicated that the best management for the basin is going to be as “subbasins 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, 87% of the respondents agreed that basin problems in their country will affect other riparian countries. Moreover, 76% think that this effect would be “negative”.

The overwhelming majority (97%) of the experts indicated that it is important to obtain information/data from the other countries and 57% 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 believe 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 will create an obstacle for a possible water management agreement, the results showed that the interviewees (87%) 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 organization(s) and/or IGO(s). 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.

Most of the interviewees (93%) agreed that water resources management cooperation among Armenia, Azerbaijan, and Georgia could lead to peace and improved welfare in the region.

When asked to choose the most suitable water resources management option for the Kura-Araks Basin, 63% 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 since the three countries are

willing to be a part of the EU in the future. A high percentage (83%) 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 also have its own “Country Division”. While 64% of the respondents thought that the headquarters could be located in Georgia, another 11% of the respondents answered that they would rather choose a neutral country as a location for the headquarters. Yet another 14% suggested mobile headquarters that changed location every other year or so.

Tables 5 and 6 summarize main obstacles and mutual issues and concerns.

**Table 5. Main obstacles to transboundary management of the Kura-Araks Basin.**

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



	Lack of funding and sources
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**Table 6. Mutual issues/concerns among Armenia, Azerbaijan, and Georgia.**

<b>Mutual Issues/Concerns</b>	
<b>Socio-economic</b>	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
<b>Political</b>	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) Willingness to join the European Union
<b>Infrastructure</b>	Funding opportunities and promises by the World Bank and Western institutions, contingent upon peace settlement, to help with economic development Ongoing projects creating a socio-economic and political basis for cooperation between the countries Ongoing mediation efforts by Minsk Group to establish cooperation and trust
<b>Country-Based Common Interests/Concerns</b>	
<b>Armenia</b>	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
<b>Azerbaijan</b>	Azerbaijan and Georgia share a similar outlook on the world and on relations with their neighbors 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
<b>Georgia</b>	Joined Armenia 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 NATO Partner, member of GUUAM (Georgia, Ukraine, Uzbekistan, Azerbaijan, Moldova alliance), and ally of Turkey Willing to sign an agreement related to Javakheti

## **7 CONCLUDING REMARKS**

- 1) The respondents overwhelmingly agree that the Kura-Araks Basin must be sustainably managed.
- 2) The current political situation (i.e., Nagorno-Karabakh) precludes an agreement to manage the Kura-Araks Basin jointly.

- 3) Individuals from all three countries are willing to cooperate to find a solution to Nagorno-Karabakh and other issues.
- 4) There is little coordination or cooperation among the various projects and donor organizations in the Kura-Araks Basin, a source of frustration to the local people.
- 5) It is 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.
- 6) Within a country, there is very little coordination between a donor-funded project and the country's agencies.
- 7) 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.
- 8) The water project results are not well understood by the local people, and often they do not have the means to implement the recommendations.
- 9) Interviewees agreed on the main issues and signaled that they willing to work together to manage the water resources Kura-Araks Basin.

Because of the Nagorno-Karabakh issue, the countries are unwilling to sign any type of agreement but they are willing to find a solution, on their own terms. The main obstacle to peace seems to be a lack of leadership to mediate and initiative to coordinate all these efforts and make them work in a sustainable manner.

Water may provide the means to obtain peace in the region. Regional cooperation on 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 neutral 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.

The people of the region are ready for peace. That is why 87% of the interviewees agreed that there are other prospective areas (along with water resource management) on which the South Caucasus countries could work together.

It is important to understand that even though ongoing disputes exist among these countries, they are accustomed to working together and being part of a similar culture since they were part of the former Soviet Union. During the Soviet Union era only a few decades ago, these countries were sharing the Kura-Araks Basin along with their other resources. Despite their religious and cultural differences, they still share the same fears and hopes for their future.

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Figure 1. Georgia, Armenia, and Azerbaijan. Kuras-Araks Basin enclosed in blue (Vener 2006)